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Sunfield

Fast-track Approvals Act 2024

Substantive Application

Planning Report

Winton Land Limited

Resource Consent Application

Fast-track Approvals Act 2024

31st March 2025

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Attachments

Attachment 1 – List of Documents

Attachment 2 – Proposed Conditions of Consent

1 INTRODUCTION

This planning report is submitted in support of the Sunfield Development (**Sunfield** or **the proposal**) by Winton Land Limited (**Winton** or **the applicant**) located across 244.5 hectares of contiguous land sitting between the rapidly urbanising and expanding suburbs of Takanini and Papakura in south Auckland. Sunfield is a comprehensive masterplanned development that has been endorsed by the New Zealand Government as a listed project under Schedule 2 of the Fast-Track Approvals Act 2024 (**the Act**).

The Act's stated purpose 'is to facilitate the delivery of infrastructure and development projects with significant regional or national benefits.' The Act has been specifically created for the purpose of fast tracking the delivery of large scale projects and it is considered that Sunfield, with an independently assessed total economic benefit to the Auckland region of $4.68 billion, around 24,000 full time equivalents employed over the development period, and adding 3,854 much needed dwellings to the southern Auckland market, fits directly into this purpose and the intention of the Act.

This planning report sets out the matters that are required to be addressed in any fast-track substantive application. The matters required to be assessed for fast-track substantive applications are set out in sections 29, 30, 42, 43, 13, Schedule 5 – clauses 5 – 8 of the Act.

The Sunfield masterplan incorporates the following:

- 3,854 healthy homes, consisting of individual homes and 3 retirement villages containing independent living units.
- 460,000 sqm of employment, healthcare and education buildings.
- permanent jobs for over 11,000 people.
- a 7.5 hectare town centre.
- a school.
- a further 4 local hubs located throughout the community.
- A community designed to enable "car-less" living.
- 25.6 hectares of open spaces, green links, recreation parks and reserves and ecological areas.
- an extensive restoration and native planting of the core stream and wetland network.
- the establishment of the Sunfield renewable solar energy network for the community.
- the Sunbus autonomous electric shuttle fleet.

As a result, the Sunfield development will achieve significant positive outcomes including the following elements:

- Housing – 15 residential neighbourhoods, comprising 80ha with nine different housing typologies providing for a range of price points and living styles.
- Jobs – a significant number of jobs will be provided.
- Climate change – the minimisation of private vehicles (combustion engines) and focus on solar energy will result in positive climate change outcomes and reductions in emissions.
- Accessibility to public transport – the land is proximate to the Papakura and Takanini train stations.
- Resilience – the proposal involves significant stormwater mitigation and as a result flood mitigation.
- Infrastructure – the development will be fully provided with the infrastructure required to service it.

Given the extent of land and development proposed in this fast-track substantive application the approach proposed within this application is to set out the various precincts within the development including those listed below as well as all the infrastructure requirements in order to ensure the development will be adequately serviced. The application then includes a number of design documents and proposed design controls which set out how the development will be given effect to and the conditions that will be required to be met in order to ensure a quality development outcome will result. The conditions proposed for this development are comprehensive and detailed and will ensure the envisaged design outcome is achieved.

The precincts that comprise the Sunfield development are:

- The Residential precincts
- The Employment precinct
- The Town Centre
- The Aged Care precincts
- The Local hubs
- The School precinct
- The stormwater reserves
- The Open Space/Green connection areas

The above listed elements of the Sunfield masterplan will combine to comprise a quality integrated community that caters for the needs of its occupants without comprising the amenity of the surrounding neighbourhood or locality.

The overall Sunfield fast-track application includes 49 separate assessments and documents including this planning report. These documents are comprehensive in their assessment and address all the matters

relevant for a fast-track application of this nature. The list of assessments/reports and documents are attached to this report as Attachment 1 and outlined in section 2.10 of this report. Attachment 2 contains the proposed conditions of consent.

In regard to the Act, this application addresses all the relevant sections of the Act including sections 29, 30, 42, 43, 44, and Schedule 5 – clauses 5 – 8.

2 Applicant, Application Site and Planning Information

2.1 Applicant

The applicant for Fast-track approval for Sunfield is Winton Land Limited (Winton). Winton is an NZX and ASX listed company with a demonstrable track record of undertaking quality and successful residential developments throughout New Zealand and Australia. Please refer to the document titled Winton Credentials (Document 48) which accompanies the application for details on Winton and its projects.

2.2 Application Site

The land subject to this application (Site or Property) comprise approximately 244.5 hectares legally described in the following table:

APPLICANT AND PROPERTY DETAILS			
Applicant	Winton Land Limited		
Property Addresses	**Legal Description**	**Title**	**Area**
(a) *Cosgrave Road, Papakura, 2582	Lot 1 DP 55480	NA6C/1128	5.8 ha
(b) *55 Cosgrave Road, Papakura, 0118	SECT 3 SO 495342, SECT 4 SO 495342	828127	9.2 ha
(c) *Old Wairoa Road, Papakura, 0118	SECT 5 SO 495342, SECT 6 SO 495342	828128	11.8 ha
(d) *Old Wairoa Road, Papakura, 2582	Lot 4 DP 55480	NA6C/1131	10.4 ha
(e) *508 Old Wairoa Road, Ardmore, 2110	DP 10383	NA258/245	23.6 ha
(f) *508 Old Wairoa Road, Ardmore, 2110	Lot 8 Deeds Plan Whau 38	NA778/296	22.5 ha
(g) *80 Hamlin Road, Ardmore, 2582	PT Lot 2 DP 22141	NA1B/856	19.0 ha
(h) *80 Hamlin Road, Ardmore, 2582	Lot 2 DP 21397	NA477/291	10.2 ha
(i) *80 Hamlin Road, Ardmore, 2582	Lot 1 DP 21397	NA477/75	30.7 ha
(j) *80 Hamlin Road, Ardmore, 2582	Lot 5 DP 12961	NA631/77	35.9 ha
(k) *80 Hamlin Road, Ardmore, 2582	Lot 4 DP 12961	NA636/171	21.9 ha
(l) *[1]279 Airfields Road, Ardmore, 2582	Lot 2 DP 199521	NA128A/553	14.1 ha
(m) *92 Hamlin Road, Ardmore, 2582	Lot 1 DP 46615	NA1666/17	0.1 ha
(n) 143 Cosgrave Road, Papakura, 2582	Lot 1 DP 103787	NA57A/1149	3.0 ha
(o) 131 Cosgrave Road, Papakura, 2582	Lot 2 DP 103787	NA77A/1150	3.0 ha
(p) 121A Cosgrave Road, Papakura, 2582	Lot 3 DP 103787, 1/3 Lot 7 DP 103787	NA57A/1151	3.3 ha
(q) 123 Cosgrave Road, Papakura, 2582	Lot 4 DP 103787, 1/3 Lot 7 DP 103787	NA57A/1152	8.9 ha
(r) 119A Cosgrave Road, Papakura, 2582	Lot 5 DP 103787, 1/3 Lot 7 DP 103787	NA61A/530	3.3 ha

(s)	119 Cosgrave Road, Papakura, 2582	Lot 6 DP 103787	NA57A/1154	3.0 ha
(t)	101 Cosgrave Road, Papakura, 2582	PT Lot 1 DP 45156	NA24C/216	1.9 ha
(u)	103 Cosgrave Road, Papakura, 2582	Pt Lot 1 DP 62629	NA18B/646	0.1 ha
(v)	55A Cosgrave Road, Papakura, 2582	SECT 1 SO 495342, SECT 2 SO 495342	828126	2.9 ha

Note 1: The applicant has unconditionally contracted to purchase the property at 279 Airfields Road and settlement is due to occur in July 2025.

* Properties owned by Winton

The Sunfield Records of Title (Document 49) are provided, which includes a list of relevant landowners and occupiers (including the other landowners within the Sunfield site) as required by Schedule 5, clause 5(1)(d) of the Act.

The Applicant owns (or has contracted to purchase) the majority of the land subject to this Application. There is no impediment to the Applicant's ability to undertake the proposed work on this land, which comprises 215.2ha of land that is subject to this Application.

The balance 29.4ha (Balance Land) is owned by 8 individual landowners, including Auckland Council the owners of 55A Cosgrave Road, which is designated for the purpose of the Awakeri Wetlands Stormwater Channel. The location of the land owned by those 8 landowners is shown in **Figure 1** below.

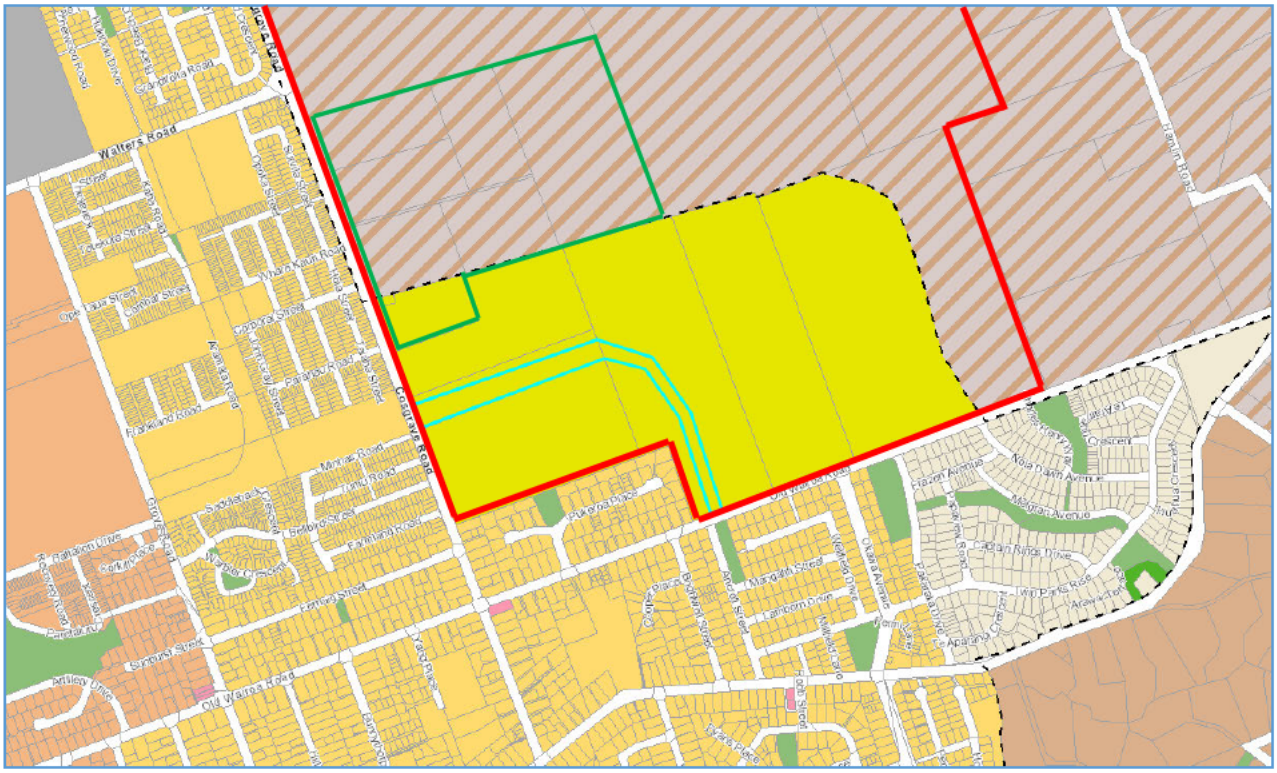

Figure 1: 55A Cosgrave Road (boundary highlighted light blue) – Owned by Auckland Council

Balance land (boundary highlighted green) – Owned by individual landowners

A copy of the Sunfield Masterplan has been sent to each of those individual landowners, for consultation purposes and feedback received has been incorporated.

The fact that the Applicant does not own or control the Balance Land is no impediment to the Applicant carrying out the Sunfield project on the land the Applicant has contracted to purchase. The Balance Land is identified in the Staging Programme (refer section 4.13 of this report) as the final stage of the Sunfield development, demonstrating that the rest of the Sunfield development can be implemented without any reliance on the Balance Land.

This Application could have excluded the Balance Land. However, assuming this Application is granted, that would have left the Balance Land zoned Mixed Rural with no consent for development and surrounded by a consented residential development. Assuming the balance Sunfield project proceeds, the Balance Land will end up with roading and all other services being installed to the boundary of the Balance Land (at no cost to those landowners). It is therefore likely that the Balance Land would be developed, in due course, in accordance with the consents granted under this Application.

2.3 Planning information, Site and Locality Description

The relevant planning information for the application site is set out below.

Auckland Unitary Plan: Operative in Part	
Zone	Future Urban Zone, Mixed Rural
Precinct	N/A
Overlays	▪ Infrastructure: Aircraft Noise Overlay – Ardmore Airport – outer control boundary (55dBA) ▪ Natural Resources: High-Use Aquifer Management Areas Overlay [rp] – Clevedon West Waitemata Aquifer
Controls	▪ Controls: Macroinvertebrate Community Index – Rural
Road Classification	Arterial Road
Designations	▪ Airspace Restriction Designation – ID 200, Ardmore Airport – Height Restrictions, Ardmore Airport Limited ▪ Designation 623, Takanini Stormwater Conveyance Corridor, Auckland Council ▪ Designation 9104 – Gas transmission pipeline – First Gas Limited
Council GeoMaps Layers	

Hydrological Catchments	▪	Floodplain
	▪	Overland Flowpath

The site has a split zoning, with 53.6 hectares of land in the south-western corner being zoned Future Urban Zone (**FUZ**) and the remaining 190.9 hectares being within the Mixed Rural Zone (**MRZ**).

Site and Locality Existing Auckland Unitary Plan Zoning

Figure 2 below shows the current AUP zoning of the application site and the surrounding locality.

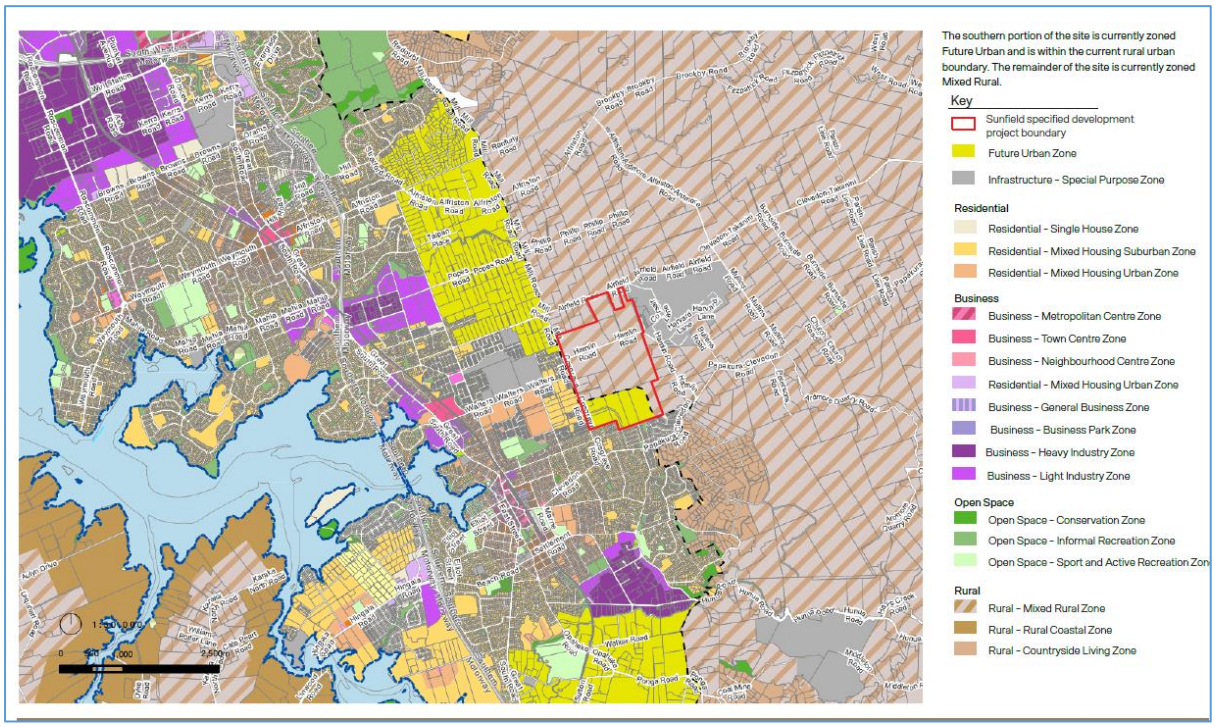

Figure 2: Zoning Plan *(Source: Sunfield Masterplan)*

The predominant zoning in the surrounding area to the west and south-west is Mixed House Suburban Zone (**MHS**) with a pocket of land in the Single House Zone (**SHZ**) to the south and south-east. Auckland Council, as part of the Intensification Planning Instrument – Plan Change 78, is proposing to rezone the MHS and SHZ land to Mixed House Urban (**MHU**).

2.4 Designations, Overlays and Controls

The site is also subject to the following designations, overlays, and controls:

- Designation 9104, Pukekohe to East Tamaki Gas Pipeline – First Gas Limited.
- Designation 200, Ardmore Airport, Height Restrictions – Ardmore Airport Limited.

- Designation 1102, Protection of Aeronautical Functions – Obstacle Limitation Surfaces – Auckland International Airport Limited.
- Natural Resources: High-Use Aquifer Management Areas Overlay – Clevedon West Waitemata Aquifer.
- Infrastructure: Aircraft Noise Overlay – Ardmore Airport (Noise Boundary; Inner Control; Outer Control).

- Controls: Macroinvertebrate Community Inder – Exotic.
- Controls: Macroinvertebrate Community Inder – Rural.

2.5 Statutory Acknowledgement

A small part of the southern portion of the Sunfield proposal is located within the statutory acknowledgement area of Ngaati Tamaoho, as illustrated by **Figure 3** below. A statutory acknowledgement is a formal legal acknowledgement by the Crown that recognises the mana of tangata whenua in relation to a specific area – particularly the cultural, spiritual, historical and traditional associations with the area. It is a legal recognition of Ngaati Tamaoho ancestral significance of this area, and the importance of the waterways, wetlands and their flow into tupuna moana Te Mānukanuka O Hoturoa/Te Maanuka. The statutory acknowledgement requires consultation with Ngaati Tamaoho as mana whenua and supply to Ngaati Tamaoho of information on resource consent activities affecting their statutory acknowledgement. Winton has undertaken significant engagement with Ngaati Tamaoho on the Sunfield proposal, as is outlined in Navigators Mana Whenua Engagement Report (Document 5).

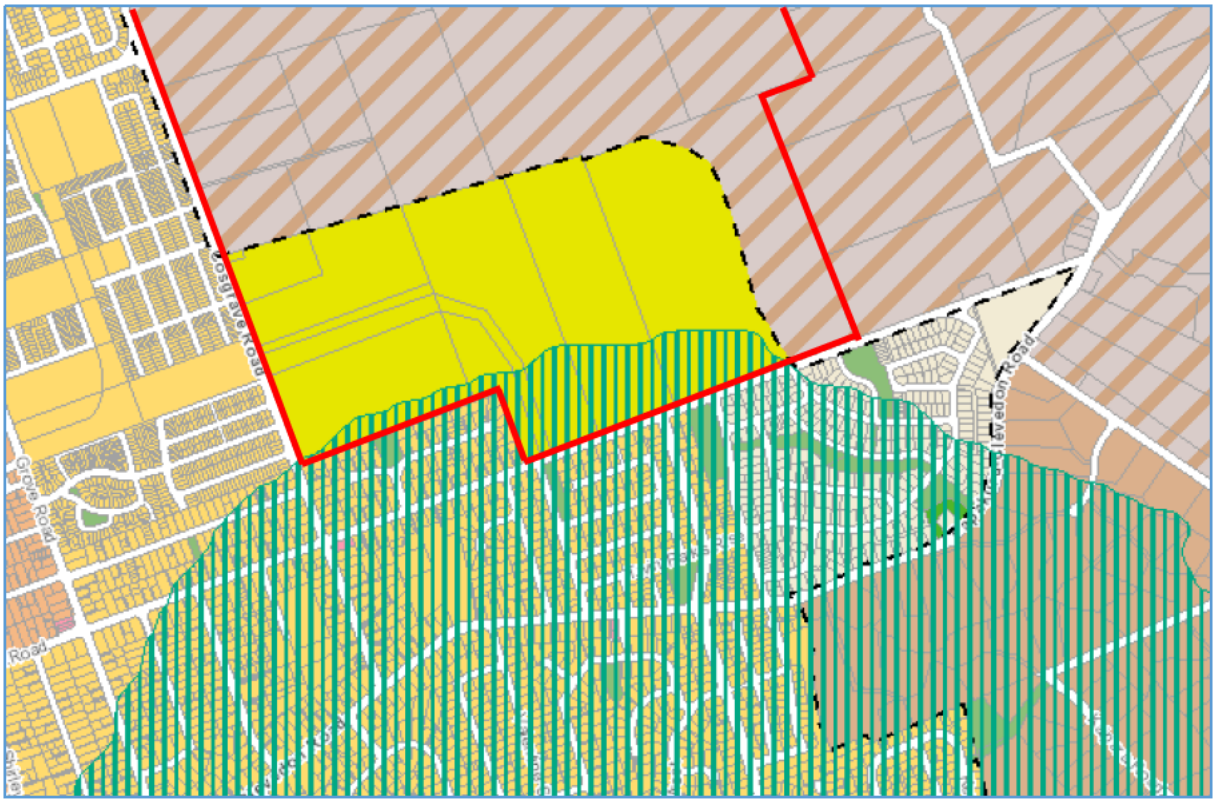

Figure 3: Ngaati Tamaoho Statutory Acknowledgement Area (Source: Auckland Council Geomaps)

2.6 Highly Productive Land

The Sunfield proposal area contains 'highly productive land' as per the National Policy Statement – Highly Productive Land. This is illustrated generally within **Figure 4** below, noting that two reports have been prepared regarding this matter from Landsystems[1] (Document 28). The first report was prepared in 2020 and a further report was produced in 2024. The reports undertake an assessment of Sunfield Developments Limited's Sunfield site in Ardmore/Takanini, focusing on its soil and land use capability under the National Policy Statement for Highly Productive Land 2022 (NPS-HPL).

These reports undertake a detailed analysis and conclude that the Sunfield site does not contain any LUC class 1 land and could be considered for urbanisation in preference to urbanising other land in the Auckland region with predominantly LUC class 1 land and well drained LUC class 2 land, which have higher productive capacity. A detailed analysis of this matter and the NPS-HPL is undertaken below in sections 7.10 and 8.5 of this report.

[1] The Landsystems Report dated 25/11/2024 contains a Land-Use Capability and Soil Assessment report prepared by Natural Knowledge Limited dated December 2020 within Appendix 1.

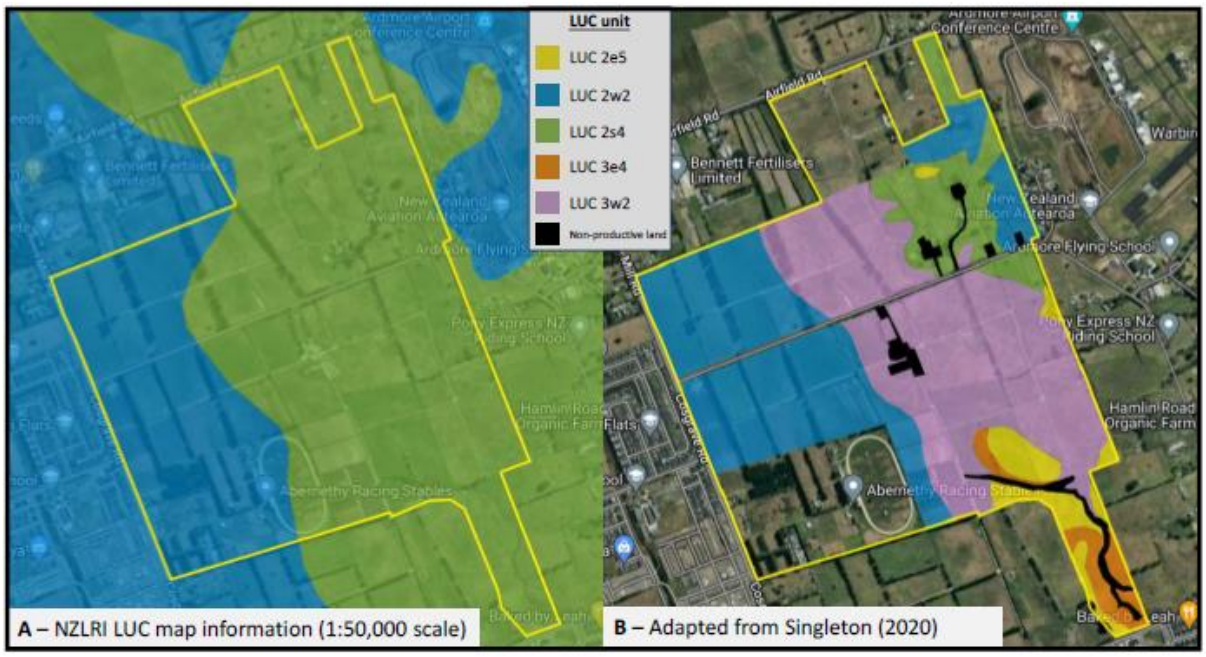

Figure 4: Soil Plan – LUC Classes *(Source: LandSystems Report – Document 28)*

2.7 Transportation Environment

The Sunfield proposal is located within reasonably close proximity to existing major transport infrastructure, with it being approximately 2km from Papakura train station and 2.2km from Takanini Train station, as indicated by **Figure 5** below.

The Sunfield area has frontage onto Cosgrave Road, an arterial road, to the west which turns into Mill Road when travelling north, and Old Wairoa Road, a local road, to the south. Two properties within the Sunfield proposal have frontage onto Airfield Road, a collector road, to the north, and Hamlin Road, a collector road, crosses the site in a west / east direction.

The transportation environment is detailed further within the Transportation Assessment Report prepared by Commute, refer Document 31.

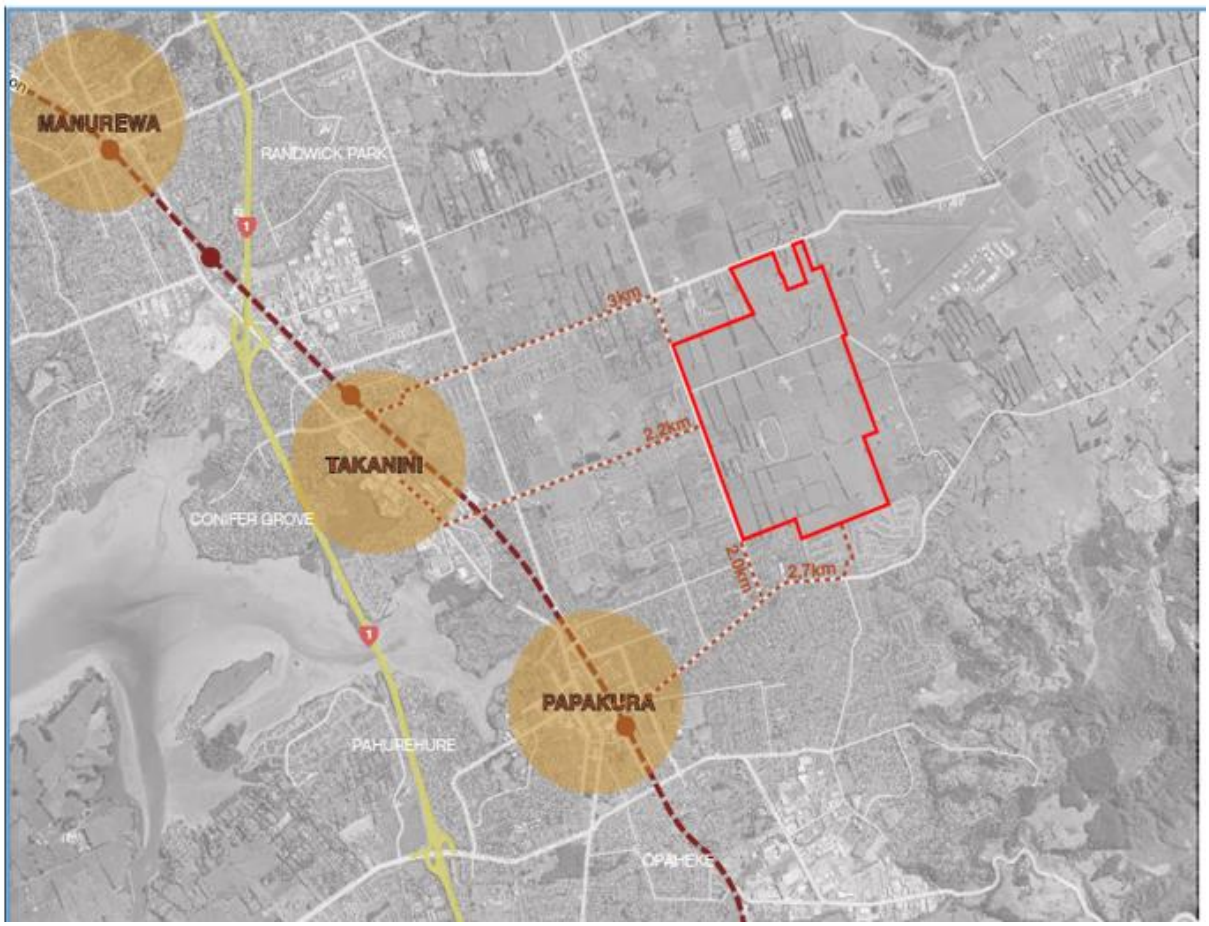

Figure 5: Location in relation to Major Transportation Infrastructure (Source: Masterplan)

2.8 Flooding and Hydrology

In addition to this planning information, the following is also important context in regard to the Sunfield proposal and reasons for consent. Figures 6 and 7 below illustrate that the area is subject to flood plains and overland flow paths, as per Auckland Council's Geomaps tool. The flood hazards and stormwater catchment are described in more detail within the Three Waters Strategy Report (Document 7) which includes the Stormwater Modelling Report, both prepared by Maven, recognising that stormwater channels are proposed which will provide attenuation for, and up to, the 100-year flows for the overall catchment, essentially removing this flood plain.

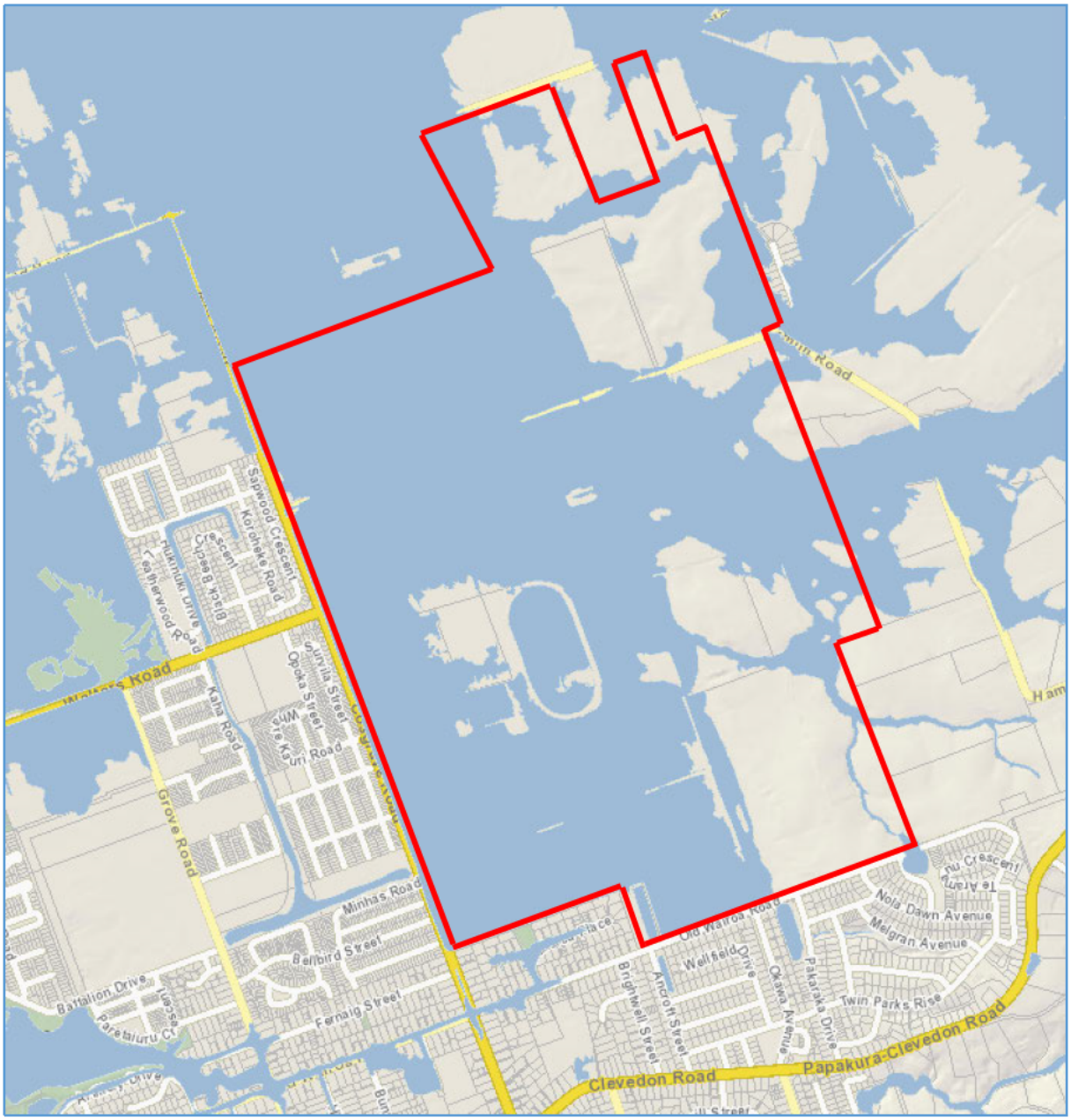

Figure 6: Location of Flood Plains *(Source: Auckland Council Geomaps)*

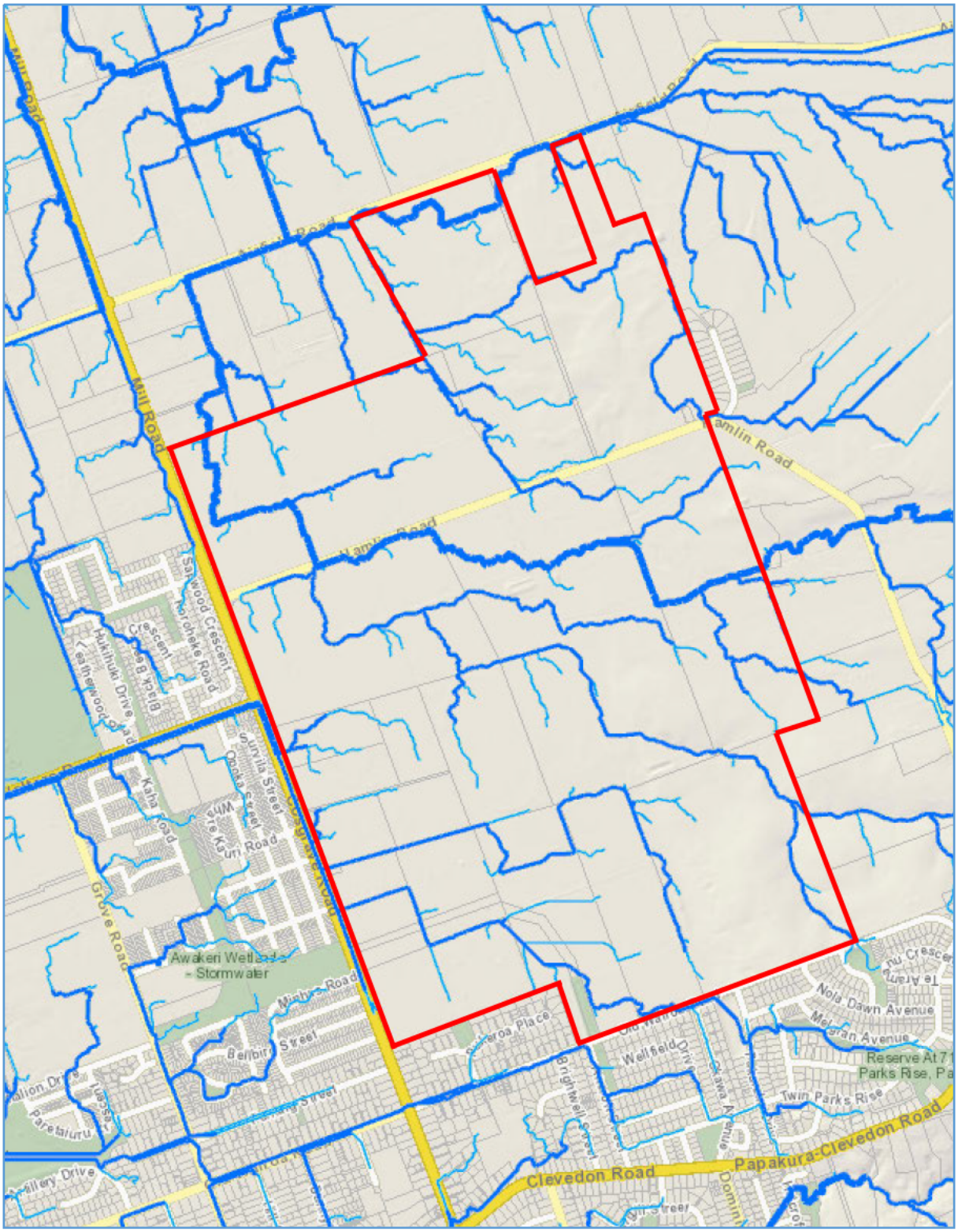

Figure 7: Location of Overland Flowpaths *(Source: Auckland Council Geomaps)*

2.9 Awakeri Wetlands

Awakeri Wetlands (also known as the Takanini Stormwater Conveyance Channel (TSWCC)), is a transformative Auckland Council infrastructure project aimed at managing stormwater and promoting

ecological sustainability in the Takanini area. The project involves the construction of a comprehensive stormwater conveyance channel, designed to control and redirect stormwater flows within the area.

Awakeri Wetlands exemplifies a sustainable approach to urban development, combining effective stormwater management, ecological preservation, and community wellbeing. This reflects Auckland's commitment to environmental stewardship and creating a harmonious balance between urban infrastructure and nature.

Stage 1 of the Awakeri Wetlands has been constructed and is operational. This is a proven and workable solution for the catchment, with it performing well during the storm events of early 2023. Given the successful implementation, this methodology has been adopted and extended for Stages 2 and 3, as well as for Stage 4, which forms part of this proposal.

Figure 8 below provides an aerial photograph of Stage 1 of Awakeri Wetlands.

Figure 8: Aerial photograph of Stage 1 of the Awakeri Wetlands

Auckland Council owns the land on which Stage 2 and 3 of the Awakeri Wetlands are to be located and had scheduled construction to commence in 2021, however these works have been put on hold due to budgetary constraints.

Winton has entered into a Design and Consenting Deed with Auckland Council to fund and undertake the design and consenting of Stages 2 and 3 of the Awakeri Wetlands. At the time of lodging this proposal, the resource consent (Ref: BUN60434634) and outline plan of work (Ref: OPW60434721) applications for Stages 2 and 3 of the Awakeri Wetlands are currently being processed by Auckland Council.

Winton and Council have commenced discussions around entering into an Infrastructure Funding Agreement for the delivery of Stages 2 and 3 of the Awakeri Wetlands. Winton proposes to undertake the construction of Stages 2 and 3 on behalf of Auckland Council and to seek appropriate development contribution offsets for undertaking these works.

The additional stormwater augmentation for Sunfield is Stage 4 of the Awakeri Wetlands and has been designed on the same basis as Stages 1, 2 and 3.

By implementing the Awakeri Wetlands and other stormwater measures, all flows up to the 100 year ARI storm event within the area will be effectively managed and contained within the proposed attenuation devices and wetland. The Awakeri Wetlands will primarily provide the attenuation and conveyance for rainfall events up to and including the 100-year ARI storm event.

The Awakeri Wetlands not only provides a functional / practical infrastructure solution for stormwater in the southern half of Sunfield but also creates a quality public asset in the form of an attractive public space including a board walk network along the edge of the wetlands.

Figure 9 below illustrates the overall Awakeri Wetlands project area.

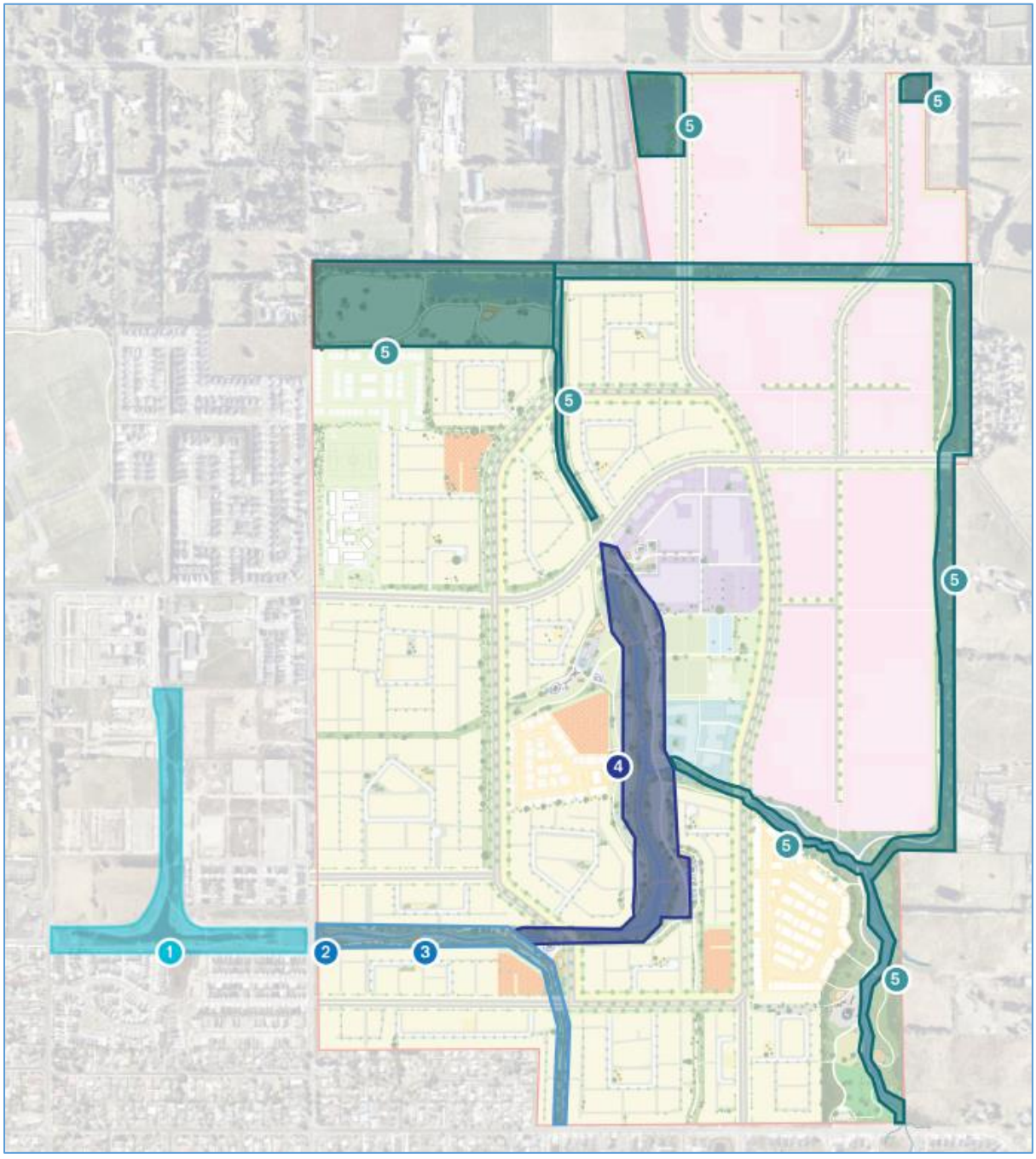

Figure 9: Awakeri Wetlands – Staging Plan *(Source: Studio Pacific)*

Stage 4 of the Awakeri Wetlands is proposed as part of Sunfield to alleviate flooding and manage stormwater within the southern development area. Awakeri Wetlands and the areas labelled (5) within Figure 9 are outlined further in this report and in detail within the Stormwater Modelling Report prepared by Maven (Document 7).

2.10 Specialist Reports

Attachment 1 provides a list of documents that support the subject application. These documents are comprehensive in their assessment and address all the matters relevant for a fast-track application of this nature. The below table outlines the attached documents:

Document Number	Name of Report	Author
01.	Sunfield Planning Report (including Consent Conditions)	Tattico
02.	Winton Land Limited Statement of Intent	Winton Land Limited
03.	a) Sunfield Masterplan Community Concept Masterplan b) Sunfield Wai Mauri Stream Park Design Report c) Sunfield Open Space Strategy Design Report d) Sunfield Residential Precinct Plans e) Sunfield Employment Concept Masterplan f) Sunfield Town Centre Concept Masterplan g) Sunfield Aged Care Concept Masterplan - Homehill h) Sunfield Aged Care Concept Masterplan - Lilyburn i) Sunfield Aged Care Concept Masterplan - Brookside j) Sunfield School Precinct Concept Masterplan k) Sunfield Design Controls and Design Guidelines For Residential Precincts l) Sunfield Design Controls and Design Guidelines - Employment Precinct	Studio Pacific Architecture

	m) Sunfield Design Controls and Design Guidelines - Town Centre Precinct n) Sunfield Design Controls and Design Guidelines for Aged Care Areas o) Sunfield Design Controls and Design Guidelines For Local Hub Precincts p) Sunfield Planting Palettes	
04.	Sunfield Urban Design Report	Studio Pacific Architecture
05.	Sunfield Mana Whenua Engagement Report	Navigator Limited
06.	Sunfield Schedule of Mana Whenua Engagement	Navigator Limited
07.	Sunfield Three Waters Strategy Report (including Stormwater Modelling Report)	Maven Limited
08.	Sunfield Infrastructure Report	Maven
09.	Sunfield Stormwater Management Plan	Maven
10.	Sunfield Engineering Plans	Maven
11.	Sunfield Scheme Plans (including Staging Plan)	Maven
12.	Sunfield Draft Construction Management Plan	Maven
13.	T&T Peer Review of Sunfield Three Waters Strategy Report, Stormwater Management Plan and Stormwater Modelling Report	Tonkin & Taylor
14.	CKL Peer Review of the Sunfield Stormwater Management Proof of Concept	CKL NZ
15.	McKenzie & Co Sunfield Peer Review of the Sunfield Three Waters Strategy Report	McKenzie & Co

16.	Sunfield Economic Assessment	Property Economics
17.	Sunfield Embracing a Car Free Future - Benefits for Sunfield Residents	Property Economics
18.	Sunfield Landscape and Visual Effects Assessment	Reset Urban Design
18a.	Sunfield Landscape & Visual Assessment - Appendix 2 - Graphic Supplement	Reset Urban Design
18b.	Sunfield Landscape & Visual Assessment - Appendix 3 – Indicative Sections	Reset Urban Design
19.	Sunfield Ardmore Airport Safeguarding Assessment	Lambert & Rehbein
20.	Sunfield Aviation Peer Review Report from AVLAW Aviation Consulting	Avlaw Aviation Consulting
21.	Sunfield Aviation Peer Review Letter from LEAPP	Leading Edge Aviation Planning Professionals
22.	Sunfield Lighting and Glare Analysis (part of Airport Assessment)	Ibex Lighting
23.	Letter from Lightforce Solar on Ardmore Airport interface	Lightforce Solar
24.	Sunfield Geotechnical Assessment	Land Development & Engineering
25.	Groundwater Assessment - Awakeri Stage 2 and 3	Earthtech Consulting
26.	Groundwater and Settlement Monitoring and Contingency Plan – Awakeri Stage 2 and 3	Earthtech Consulting
27.	Sunfield Archaeological Assessment	Clough & Associates
28.	Sunfield Soil Assessment	Landsystems
29.	Sunfield Assessment of Noise Effects	Styles Group
30.	Hegley Acoustic Consultants Peer Review of the Sunfield Assessment of Noise Effects	Hegley Acoustic Consultants
31.	Sunfield Transportation Assessment	Commute Transportation Consultants
32.	Sunfield Executive Summary and Detailed & Preliminary Site	Focus Environmental Services Limited

	Investigations and Site Management Plan	
33.	Sunfield Site Management Plan	Focus Environmental Services Limited
34.	Sunfield Baseline Ecological Assessment	Bioresearches
35.	Sunfield Draft Environmental Management Plan	Bioresearches
36.	Sunfield Sustainability and GHG Assessment	Stantec
37.	Sunfield Enabled Transport Emissions Assessment	Stantec
38.	Letter from Lightforce Solar on Sunfield Solar	Lightforce Solar
39.	Letter from Ohmio Outlining Credentials	Ohmio Automotion
40.	Letter of Support from Owner	[redacted]
41.	Letter from First Gas Detailing Engagement	First Gas
42.	Letter from Tuatahi First Fibre Limited	Tuatahi First Fibre Limited
43.	Letter from Vector	Vector
44.	Letter from Chorus NZ Ltd	Chorus
45.	Letter from Rubbish Direct	Rubbish Direct Limited
46	Auckland Council Section 30 Response Letter	Auckland Council
47.	Details of each landowner adjacent to Sunfield	Winton Land Limited
48.	Winton Credentials Document	Winton Land Limited
49.	Sunfield Titles	Winton Land Limited

3 SUNFIELD DESIGN PRINCIPLES

The Masterplan (refer Document 3a) outlines the eight core principles of Sunfield in detail. These are referenced as the "Sunfield Design Principles". **Figure 10** below has been taken from the Masterplan and provides an overview of the eight principles.

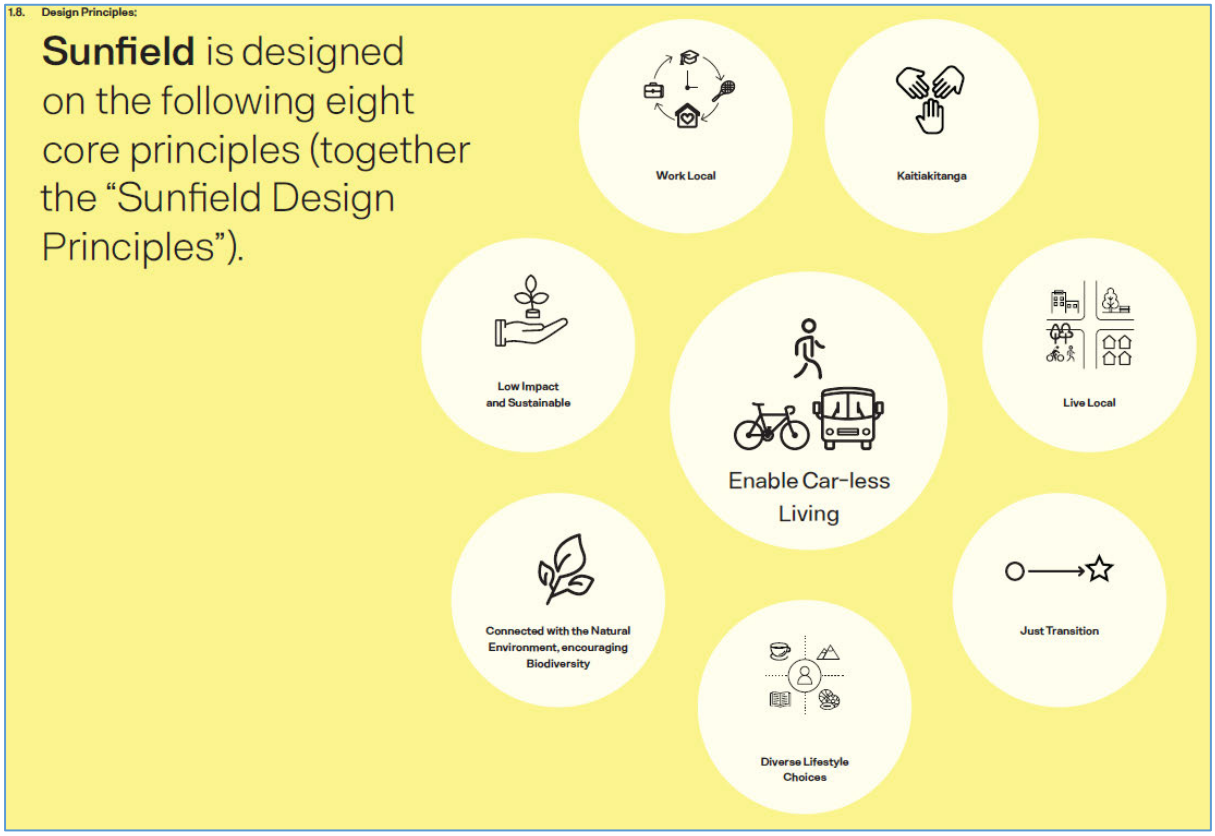

Figure 10: Sunfield Design Principles (Source: Studio Pacific)

When considering these eight principles in a planning context, the following provides a summary of their intent:

- **Enable Car-less Living** – Provide for a lifestyle which does not rely on a private motor vehicle, with daily life being in close proximity and providing viable transport options if longer distance travel is required.
- **Live Local** – Ensuring that local social, recreational, education and employment opportunities are close by.
- **Work Local** – Providing employment opportunities within the Sunfield development, and enabling more residents to 'work from home' with shared flexible working spaces.

- Kaitiakitanga – Through the creation of an open space network which enhances the natural environment and connects it to the community, a strong sense of custodianship and well-being is envisaged, in line with the Māori world view of Kaitiakitanga and the responsibility of protecting the natural environment.
- Low Impact and Sustainable – Creating a low impact and sustainable community through measures such as reducing car-dependence, water-sensitive urban design, on-site water tanks, and solar panels for clean energy.
- Just Transition – Creating a low carbon lifestyle for all residents with healthy homes that are more affordable, cheaper to run and easily accessible.
- Connected with the Environment, Biodiversity – Enhancing the native habitats and waterways with an open space network which enables informal recreation for the community.
- Diverse Lifestyle Choices – Provide for a diverse community with different housing typologies including retirement villages, whether they be first home buyers, families, renters or retirees.

These principles form the basis upon which the design, layout and development plan of the Masterplan is developed. The result is a comprehensive and integrated community centric development focussed on achieving positive sustainability outcomes.

4 PROPOSAL

4.1 The Overall Masterplan

This application is for the land-use and subdivision of the Sunfield Development site. The proposal includes all the matters referred to below in this section and in all the technical documents (including plans) and assessments submitted in support of the Sunfield Development. In addition, the proposal requires the realignment and partial stopping of Hamlin Road. This will occur through a separate process under either the Local Government Act or Public Works Act (as these approvals are not provided via the Fast-track Approvals Act), subsequent to the granting of this resource consent.

The Sunfield Concept Masterplan (Document 3a) prepared by Studio Pacific outlines the proposal in considerable detail. The Masterplan sets out the following elements:

- An overview of the Sunfield community
- A description of the features of each 'neighbourhood' within the overall development
- An explanation of the approach to residential development
- A contextual analysis of the development and surrounds
- A site analysis
- An assessment of the challenges and opportunities
- The zoning and precinct plans

In summary the proposal will comprise:

- a community designed to enable "car-less" living;
- 3,854 healthy homes, consisting of individual homes and 3 retirement villages containing independent living units;
- 460,000 sqm of employment, healthcare and education buildings;
- a 7.6 hectare town centre;
- a school;
- a further 4 local hubs located throughout the community;
- permanent jobs for over 11,000 people;
- 27.7 hectares of open spaces, green links, active and passive recreation spaces;
- an extensive restoration and native planting of the core stream and wetland network;
- the establishment of the Sunfield renewable solar energy network for the community;

- the Sunbus autonomous electric shuttle fleet.

Figure 11 below illustrates the proposed Masterplan.

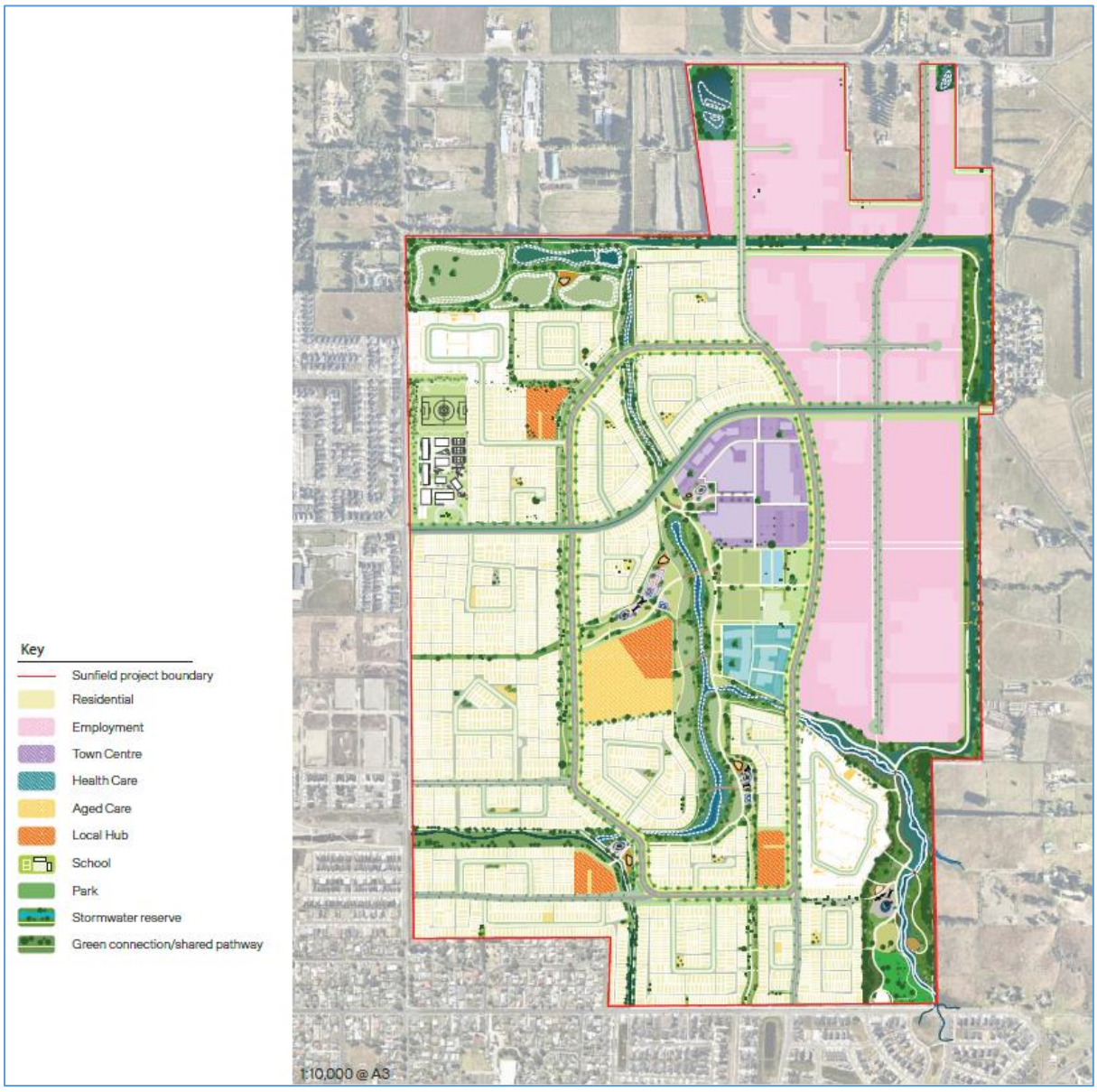

Figure 11: Masterplan *(Source: Studio Pacific - Masterplan)*

A summary of each element of the Masterplan is provided in the sections below.

4.2 The Residential Precinct

The plans for the Residential Precinct (Document 3d) outline that there are 15 neighbourhoods across the Sunfield proposal, generally located in the western portion of the site, adjacent the existing residential urban area further to the west. Collectively, these neighbourhoods are approximately 80.7ha.

The defining characteristics of the residential precinct are:

- A 'car-less' neighbourhood with landscaped and pedestrian laneways. Vehicles will have limited accessibility to these areas and will access neighbourhoods via the vested loop road and some identified laneways. Only one in ten dwellings will have a car-parking space on site, with visitor parking and general parking located within the local hubs.
- Promotion of alternative forms of transport, proximity to the Sunfield Loop Road, micromobility support with storage and charging stations, and shared and dedicated active mode pathways.
- The laneways are designed to allow for pedestrian priority, with landscaping, paving materiality and gathering areas emphasising the human scale. The laneways are 6 metres wide, with a minimum width of 8.4m between buildings.
- The dwellings will be clad in a range of materials, including brick, timber, weatherboard or profiled metal cladding.
- All dwellings have pitched roofs to allow for solar panels.

The Residential Design Controls (Document 3k) outline the design requirements for buildings and landscaping on residential lots, and how these are to integrate with connecting roads/laneways and minor service hubs. Appendix A of this document provides a range of residential reference typologies which are in turn cross-referenced and utilised within the residential precinct plans. These dwelling typologies, outlined below in **Table 1**, range in size and the number of bedrooms, as well as being either standalone or duplexes, with all dwellings being two levels with outdoor areas at ground level.

The housing typologies consist of:

Reference	Description	GFA	Lot Size
2A	2 Bedroom Duplex House	105m^2	132m^2
3A	2+1 Bedroom Duplex House	125.9m^2	132m^2
3B	3 Bedroom Duplex House	123.2m^2	132m^2
3C	3 Bedroom Duplex or Standalone House	131.2m^2	154m^2 or 187m^2 when standalone

3D	3 Bedroom Duplex or Standalone House with Carpad	130.6m^2	187m^2 or 220m^2 when standalone
4B	4 Bedroom Standalone House	162.2m^2	220m^2
4C	4 Bedroom Standalone House	173.3m^2	187m^2
4D	4 Bedroom Standalone House with Carpad	163.4m^2	220m^2
5A	5 Bedroom Standalone House with Carpad	200.8m^2	242m^2

Table 1: Summary of Housing Typologies

The number of different housing typologies vary across each of the 15 neighbourhoods, however, it is recognised that having nine different housing typologies will add variety to the housing market with different price points to cater for the needs of a range of residents and their specific living requirements.

The below table (Table 2) outlines the total number of dwellings across Sunfield associated by bedroom numbers.

	Count	%
2Bed	616	19%
3Bed	1693	53%
4Bed(accessible)	126	4%
4Bed	714	22%
5Bed(accessible)	48	2%
Total	3197	100%

Table 2: Housing Split *(Source: Studio Pacific – Residential Precinct Plans)*

The term 'accessible' is used within the residential precinct plans, which indicates dwellings with an accessible ground floor bedroom and the provision for wheelchair access.

Each Neighbourhood Plan provides the details of:

- the individual lot, roading and access lots layouts;
- those lots/buildings which have a work/live dual function (of which there are 94 across the residential precinct);

- those lots which have one on-site parking space;
- the proposed housing typology for each individual lot;
- the roading and access hierarchy;
- Neighbourhood Service Hubs with shared car-parking / visitor car-parking areas, drop off points and loading zone; and
- the proposed setback and edging treatment requirements (as per the Residential Design Controls).

Proposed conditions have been put forward to ensure that the detailed design for each building, particularly the elevations and façade components, are provided prior to the issue of building consent. This will ensure that amenity, character and urban design considerations are fully assessed and analysed prior to construction.

4.3 The Employment Precinct

The plans for the Employment Precinct (Document 3e) outline its location in the north-western portion of the site, adjacent to existing rural activities and Ardmore Airport further to the north and west. The proposed lots are relatively large in order to cater for a range of industrial activities and buildings, with ancillary office space and vehicular loading, parking and manoeuvring spaces.

Vehicular access to the Employment Precinct is predominantly gained via Airfield Road to the north, with Hamlin Road dissecting the precinct in a west to east direction and connecting to Ardmore Airport.

The Employment Precinct Design Controls (Document 3l) outline the design requirements for buildings and landscaping on the lots, and how these are to integrate with connecting roads/laneways and neighbouring land-uses. This includes building setbacks of 5m to 20m depending on the adjoining interface, building heights up to 20m, and building coverage up to 80%. Of note, is the lack of buildings within a central portion of the precinct, which is to be 'yard' space for industrial activities, to ensure potential reverse sensitivity effects associated with Ardmore Airport are managed, as outlined in section 7.13 of this report.

4.4 The Town Centre Precinct

The Town Centre Precinct plans (Document 3f) illustrate the location of the Town Centre at the crossroads of Sunfield Loop Road and Hamlin Road, which gives the centre prominence and good accessibility. The Town Centre Precinct is illustrated in **Figure 12** below, outlining building locations, vehicle and pedestrian movement areas, with substantial landscaping. The Town Centre Precinct Design Controls (Document 3m) outline the detailed requirements for the built form and appearance of the mixed-use commercial areas.

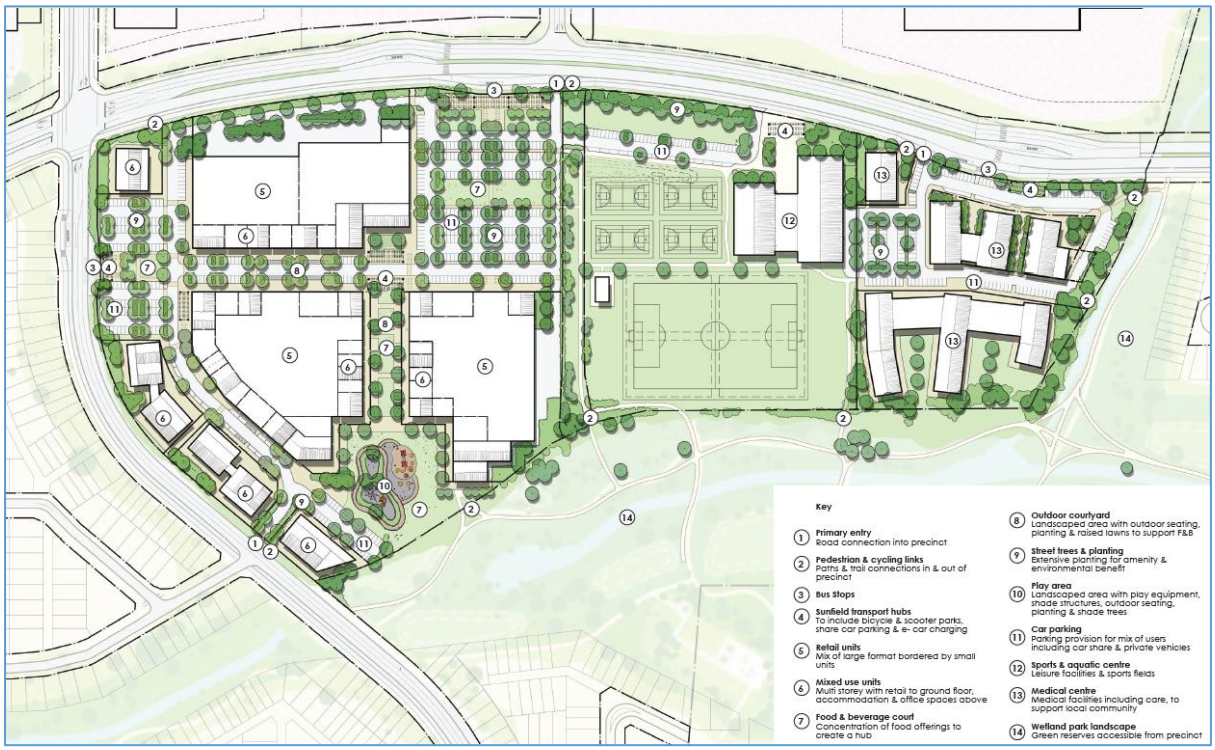

Figure 12: Town Centre – Illustrative Masterplan *(Source: Sunfield Town Centre Concept Masterplan)*

Town Centre

The northern part of the Town Centre Precinct will contain a traditional town centre with large format retail (four major tenancies) and smaller mixed-use commercial activities which will include offices, food and beverage, retail, and some residential and visitor accommodation above ground level. The buildings within the centre will be two levels and up to a maximum height of 9m.

Vehicle access into the Town Centre will be limited for private vehicles with two main access points, one on Sunfield Loop Road and one on Hamlin Road. Transport hubs with bicycle parks, car-parking and electric vehicle charging will be provided with a hub in the north and east, with adjacent bus stops on Sunfield Loop Road and Hamlin Road. Pedestrian connections through the Town Centre will be provided in both north to south and west to east directions providing good connectivity, with vehicle calming measures also proposed.

Three main buildings platforms will integrate with the pedestrian connections, and in particular two main streets which are orientated in a north to south and west to east direction, converging centrally. A landscaped play area is located at the end of one of the main streets in the western portion of the centre, which opens out on to the Central Stormwater Park. A row of mixed use buildings are located to the north,

fronting Sunfield Loop Road, with a mixed use building addressing the corner of Sunfield Loop Road and Hamlin Road in the north-east.

Sunfield Park

Sunfield Park is located centrally within the Town Centre Precinct with good connectivity to the town centre itself, with the sports fields, courts club rooms and a destination playground will become a focal point for the community. An aquatic /sports centre is proposed in the south-eastern corner of Sunfield Park.

Healthcare Facilities

Further to the south is a proposed 3ha site which is to accommodate a medical centre with hospital, aged care and healthcare facilities. It is proposed to have one larger building located to the west, with three smaller buildings in the eastern portion of the area with associated car-parking and landscaping.

4.5 The Aged Care Precincts

There are three proposed Aged Care Precincts within Sunfield being Lilyburn, Brookside and Homehill, each with an Illustrative Masterplan, and collective Aged Care Design Controls (Document 3n) detailing building and landscaping requirements.

Lilyburn

The Lilyburn Aged Care plans (Document 3h) show its location in the north-western portion of Sunfield, with Wetland Park to the north, the School Precinct and residential neighbourhood 11, and residential neighbourhood 15 to the east. Mill Road is directly to the west, with existing residential properties beyond.

Figure 13 below is the site plan for Lilyburn, with the key features being:

- Vehicular access and the primary entrance to the site from the south, leading to a loop road providing vehicular and pedestrian access with associated landscaping. A small amount of visitor and car-share parking is also provided on site.

- Pedestrian connections and laneways connecting to Wetland Park to the north, Mill Road, the wider open space greenway connection and the Local Hub.

- A 2.5m wide landscaped buffer strip between the site and Mill Road.

- Amenity buildings, up to 11m in height, adjoining the northern boundary containing a reception, café, games room, gym and pool.

- A total of 139 units are provided, with 62 x3 bedroom duplexes, 19 x3 bedroom detached, and 58 x1-2 bedroom townhouses. Buildings will be setback 4.5 metres from the loop road, 3 metres from pedestrian laneways and 5 metres from rear boundaries. Each dwelling will have a private outdoor area providing a level of on-site amenity.

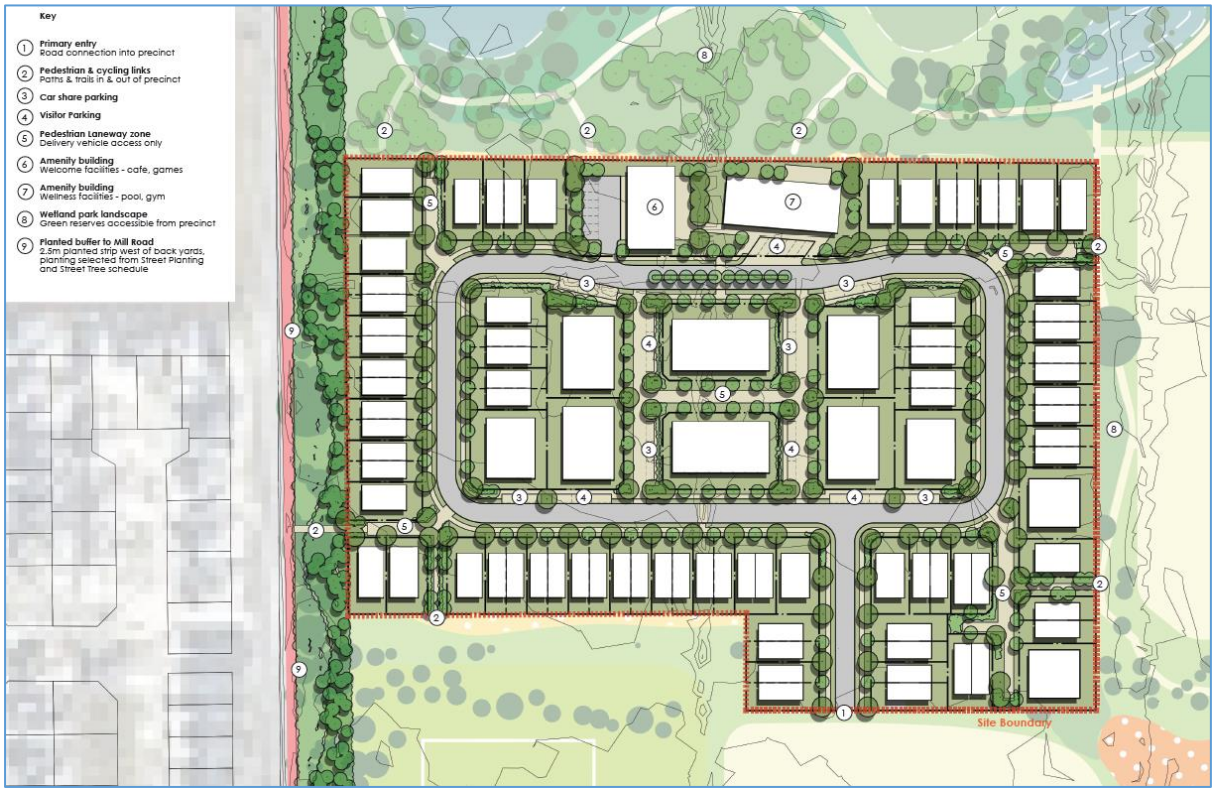

Figure 13: Lilyburn – Illustrative Masterplan *(Source: Sunfield Aged Care Concept Masterplan)*

Brookside

Brookside is proposed to be located centrally within the Sunfield, as illustrated in Brookside Aged Care plans (Document 3i), with a Local Hub to the north-west, the Central Stormwater Park to the east and north, residential neighbourhood 7 to the south, residential neighbourhood 10 to the west.

The key features include:

- Vehicular access and the primary entrance to the site from the west via Sunfield Loop Road, leading to a loop road providing vehicular and pedestrian access with associated landscaping. A small amount of visitor and car-share parking is also provided on site.

- Pedestrian connections and laneways connecting to Central Stormwater Park to the east and north, and the Local Hub to the north-west.

- Amenity buildings, up to 11m in height, in the south-eastern corner containing a reception, café, games room, gym and pool.

- A total of 140 units are provided, with 42 x3 bedroom duplexes, 8 x3 bedroom detached, and 90 x1-2 bedroom townhouses. Buildings will be setback 4.5 metres from the loop road, 3 metres from pedestrian laneways and 5 metres from rear boundaries. Each dwelling will have a private outdoor area providing a level of on-site amenity.

Homehill

Homehill, the largest aged care facility of the three, is located within the south-eastern portion of Sunfield, as illustrated in Homehill Aged Care plans (Document 3g), with Wai Mauri Stream Park to the east and north, residential neighbourhood 5 to the south, and a Local Hub and residential neighbourhood 6 to the west beyond Sunfield Loop Road.

The key features include:

- Vehicular access and the primary entrance to the site from the west via Sunfield Loop Road, leading to a loop road providing vehicular and pedestrian access with associated landscaping. A small amount of visitor and car-share parking is also provided on site.

- Pedestrian connections and laneways cross the site and also connect to Wai Mauri Stream Park to the east and north, Sunfield Loop Road and the Local Hub to the west.

- Amenity buildings, up to 11m in height, adjacent the northern boundary containing a reception, café, games room, gym and pool.

- A total of 221 units are provided, with 114 x3 bedroom duplexes, 19 x3 bedroom detached, and 88 x1-2 bedroom townhouses. Buildings will be setback 4.5 metres from the loop road, 3 metres from

pedestrian laneways and 5 metres from rear boundaries. Each dwelling will have a private outdoor area providing a level of on-site amenity.

4.6 The Local Hubs

Four Local Hubs will be located within the Sunfield proposal, as illustrated within the Design Controls and Design Guide for the Local Hubs (Document 3o). The Local Hubs will be within walking distance of the 15 residential neighbourhoods and 3 aged care facilities.

Figure 14 below illustrates Local Hub D, which is located in the north-western portion of Sunfield. The Local Hubs are similar in design, with the following design parameters:

- Three apartment buildings with parking, car-wash bay, solar battery storage area waste facilities, bicycle parks, storage (click and collect lockers), and a commercial tenancy at ground level. Three bedroom, two bedroom and one bedroom apartments will be located on level one of the three buildings.

- At grade shared and visitor car-parking, loading areas, drop-off and pick-up areas and associated landscaping.

Figure 14: Local Hub D – Layout Plan *(Source: Design Controls and Design Guide for Local Hubs))*

4.7 The School Precinct

The school precinct is located in the north-western portion of the site, as illustrated within the School Precinct Concept Masterplan (Document 3j), adjacent Mill Road and Hamlin Road. This allows for appropriate visibility from the main road and being at an identifiable junction, with it being a key destination. A pick-up and drop-off area, associated parking, and the primary pedestrian and vehicular entrance is proposed to be located adjacent Hamlin Road. The buildings in this portion of the site are setback 50m from Hamlin Road allowing for vehicular and pedestrian access, along with substantial landscaping.

The school buildings are predominantly single storey and are orientated around a central open courtyard. Some of the teaching blocks are two levels, however, this is dependent on final roll numbers. Playing fields

are located in the northern portion of the site. Appropriate buffers with landscaping are also proposed, particularly to the east, and the internal boundary with the residential area of Neighbourhood 11, within Sunfield.

4.8 The Recreational Precinct - Open Space/Green connection areas

There are a series of connecting parks and greenways across the site. These areas play an important function in stormwater management and the retention of the stream and wetland network. Additional planting within these areas will also enhance the ecological values of the area, which have previously been degraded through stock management and farming.

The Sunfield Open Space Strategy prepared by Studio Pacific (Document 3c) outlines the open space design philosophy to ensure consistency and connectivity. The strategy integrates the competing demands of stormwater management, biodiversity and creating a highly functional and enjoyable area of open space.

The primary areas of open space are made up of a number of larger spaces, being:

- *Wetland Park* – This 9.5ha park is located in the north-western corner of Sunfield, and provides for stormwater attenuation for areas to the north and west. There are three grassed attenuation basins which double as a park and open space area for informal recreation.

- *Centralised Stormwater Park* – This largely linear park will carry out an important stormwater attenuation and treatment function. The 11.6ha park will be grassed and planted, and will provide trails and paths for passive recreation whilst connecting the northern and southern portions of Sunfield through active modes. Neighbourhood parks are to be located adjacent this area to allow play and social gatherings, with three bridges crossing the stormwater channel to allow for east-west connections.

- *Wai Mauri Stream Park* – This 10.4ha park will reinvigorate the south-eastern natural inland wetland and associated stream (Watercourse 2). Passive recreation opportunities in the form of paths and open spaces will be provided, with the principal objective of this park to provide habitat for native fauna and to reflect and enhance the cultural connections to the site, which has been designed with close engagement with and agreement from iwi.

- *Sunfield Park* – These sports fields, courts, club rooms and a destination playground will become a focal point for the community. This 2.1ha site will support organised sport in the South Auckland region and will complement nearby Bruce Pullman Park.

- *Awakeri Stormwater Wetland* – As outlined in section 2.9 of this report, the regulatory approvals for Stages 2 and 3 of Awakari Wetlands are currently processing, and is located in the south-western portion of the site. This is a 2.3km linear reserve which provides passive recreation opportunities for walking and cycling, and provides connection to the wider site, and the existing residential communities to the west.

- *Northern and Western Linear Parks* – These parks are located adjacent to the northern and western boundary and provide connections through the site, with footpaths and boardwalks being provided, and stormwater channels for the movement and attenuation of water. These greenways also provide a buffer and transition to the rural properties adjacent Sunfield.

4.9 Infrastructure Summary

The proposed infrastructure for the development is outlined in detail within the Three Waters Strategy Report (Document 7) and Infrastructure Report (Document 8) prepared by Maven. In summary, the following infrastructure is to be provided:

Stormwater

In order to achieve the stormwater outcomes sought, the following stormwater principles are proposed:

- Using flood management devices to attenuate peak flows, including four stormwater ponds, conveyance channels and stormwater swales to manage the 100-year Annual Recurrence Interval (ARI) floodplain, as outlined on **Figure 15** below.

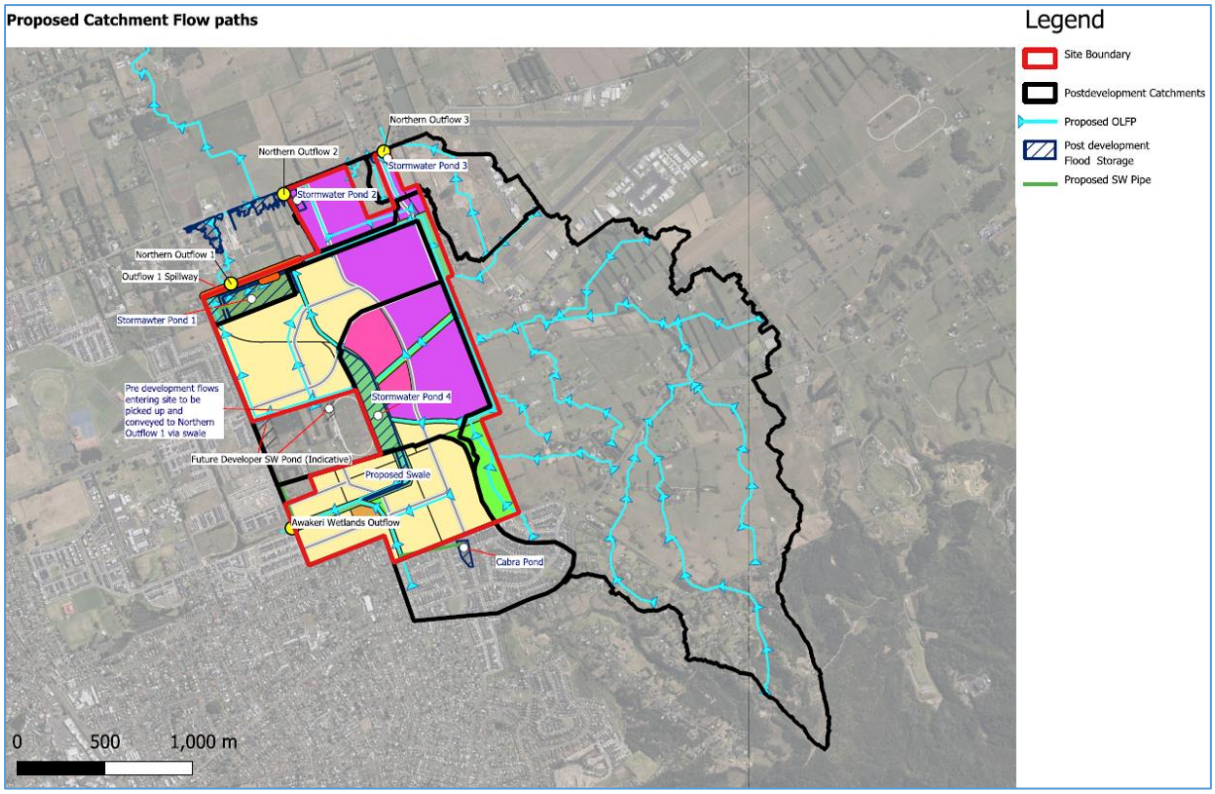

Figure 15: Proposed Stormwater Management Infrastructure *(Source: Three Waters Report prepared by Maven)*

- Hydrological mitigation to minimise the change in hydrology through retention and detention devices to manage the flow of water.

- Provide stormwater treatment devices such as conveyance channels and wetlands to manage water quality.

- Groundwater water recharge of the peat soil through soakage/recharge pits to ensure the retention of existing groundwater levels.

Wastewater

It is proposed to utilise a Low Pressure Sewer (LPS) system within the development which will discharge flows to the downstream Takanini Branch Sewer (being the existing 525mmØ transmission line) via a new rising main along Cosgrave Road, Walters Road and Mill Road.

LPS systems eliminate peak wet weather flows by utilising a sealed network which eliminates inflow and infiltration.

Due to the flat topography, poor ground conditions and high-water table of Sunfield, a LPS system is considered an acceptable alternative solution to a standard gravity option for wastewater servicing.

Water

A new reticulated public water supply will need to be extended from the Bulk Pressure Supply Point (BSP) to service the development.

There are two existing BSP points on the existing 450mmØ transmission line located in the near vicinity of Sunfield. The closest BSP point is in the front berm of 393 Porchester Road, with another at the intersection of Porchester Road and Airfield Road.

Consultation with Veolia and Watercare will be required to confirm the preferred connection point and capacity.

4.10 Earthworks Summary

Earthworks are required to enable the site to be developed and to allow for the construction of the required infrastructure to support the development. Earthworks are proposed over an area of 244ha and entail cut and fill operations associated with the formation of finished ground levels across the site.

The Infrastructure Report (Document 8) prepared by Maven, outlines the proposed earthworks area, volumes and methodologies for minimising potential adverse effects. This includes sediment and erosion control measures, preloading building platform areas, earthworks being undertaken under the supervision of a suitably qualified expert, and a regular maintenance and monitoring regime.

Figure 16 below provides an earthworks plan of the associated cut and fill.

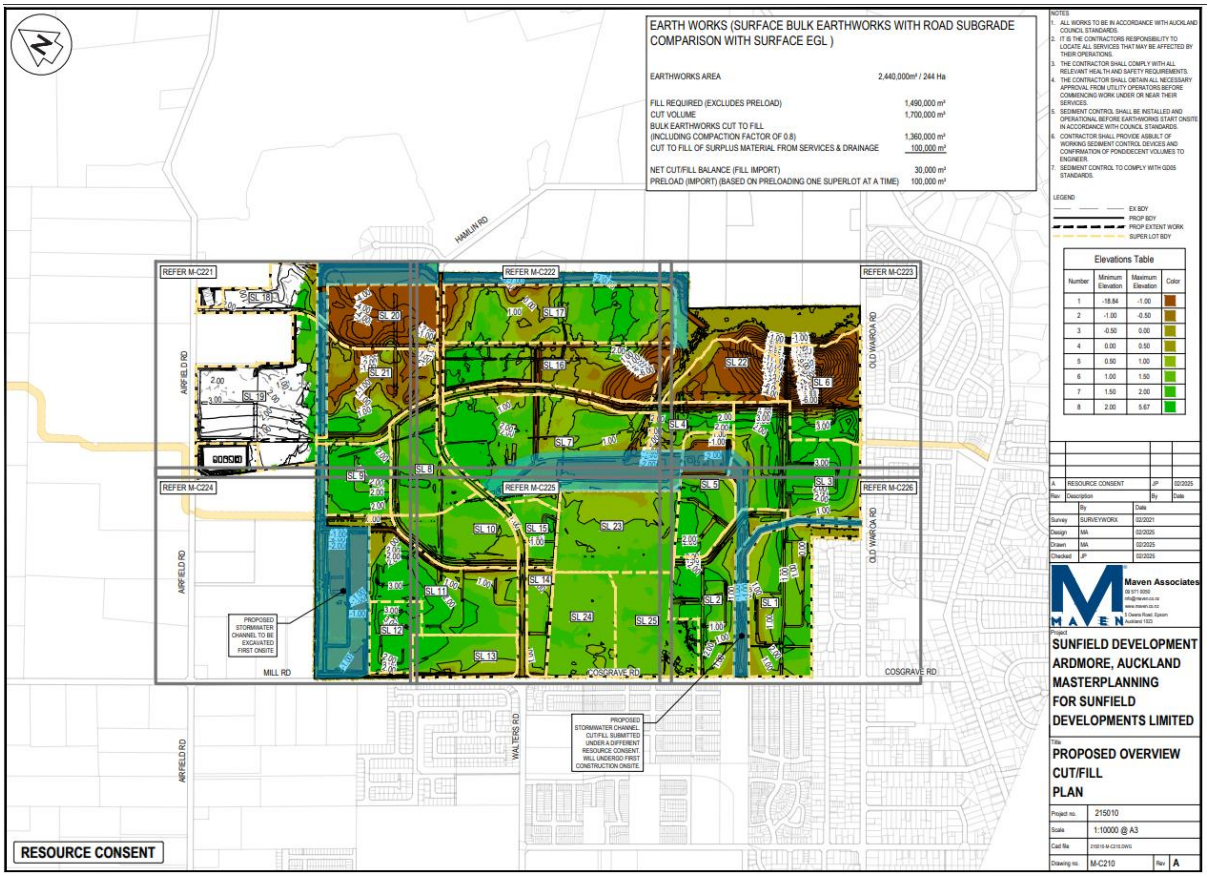

Figure 16: Earthworks Plan *(Source: Engineering Plans prepared by Maven)*

Table 3 below provides an overview of the earthwork proposed metrics.

Total area of ground disturbance	= 244Ha
Maximum cut and fill depth	= 18m cut & 6m fill
Fill required (excludes preload)	= 1,490,000m^3
Cut volume	= 1,700,000m^3
Bulk earthworks cut to fill (Including compaction factor of 0.8)	= 1,360,000m^3
Cut to fill of surplus material from services & drainage	= 100,000m^3
Total cut/fill volume (Sum of total cut + total fill)	= 3,290,000m^3
Net cut/fill balance (Fill Import)	= 30,000m^3
Preload (import) (Based on preloading one superlot at a time)	= 100,000m^3

Table 3: Earthwork Metrics *(Source: Infrastructure Report, prepared by Maven)*

4.11 Transport Summary

The proposed transportation upgrades, improvements and philosophy are outlined in the Integrated Transport Assessment Report (Document 31) prepared by Commute. In summary, the following is proposed:

- A significant limitation on the number of proposed car-parking spaces. One in every 10 dwellings will have on site car parks. Visitor parking will be provided at the same 1 in every 10 dwelling ratio. The provision of car share spaces at Sunfield at a ratio of 1 in every 11.5 dwellings. The total number of residential car-parking spaces will be 454 spaces within the Local Hubs for the apartments, visitor parking and car share parking, with 529 spaces within the Residential Precinct itself. This therefore means a total of 983 spaces. **Figure 17** below provides a breakdown of the parking ratios.

Ratio of houses which have on-lot carpark	10.16%	*Based on 3200 houses*
Ratio of apartments which have an assigned car park space	100.00%	*Based on 61 apartments*
Car share per residential dwelling (apartment + house)	8.65%	*Based on 3261 dwellings*
Visitor parking per residential dwelling (apartment + house)	9.66%	*Based on 3261 dwellings*

Figure 17: Residential Parking Ratios *(Source: Studio Pacific)*

- Provision of a frequent public transport system ('Sunbus') linking both internally within the site and wider network (including Takanini and Papakura town centres and train stations). This includes the provision and funding for a fleet of vehicles operating continuously.

- An internal road network, orientated around a loop road, the 'Sunfield Loop Road'. The Sunfield Loop Road is a 32m wide transport corridor which prioritises active and shared transport modes to provide access throughout the site and enable the concept of 15-minute walkable neighbourhoods. There are seven links to the wider roading network.

- Encouraging active transport modes through a reduction in car ownership, and the provision of significant walkways and cycleways within the site.

- Nine localised intersection upgrades including signalised intersections.

- Provision of upgraded cycle lanes linking the site to Takanini and Papakura town centres and train stations.

4.12 Subdivision Summary

The subdivision layout is contained within Document 11, which provides a detailed scheme plan, prepared by Maven.

The scheme plan outlines the detail of each lot, including the lot size, boundary dimensions, and which lots are to vest to Auckland Council as road, accessway or local purpose (drainage) reserve. The scheme plan also identifies Commonly Owned Access Lots (COAL), and Commonly Owed Lots (COL) being the Neighbourhood Service Hubs.

There is also considerable detail in the Engineering Plans (Document 10) and Infrastructure Report (Document 8). The Engineering Plans (Document 10) illustrate:

- The earthworks contours post development, and the amount of cut and fill.
- Sediment control measures to be implemented.
- The road layout including cross sections, long sections, and the required intersection upgrades.
- Stormwater, wastewater and potable water connections for each lot.

In addition, the subdivision of the site will include a number of easements, including for the following elements:

1. Right to convey electricity, water and telecommunications (both standard and in Gross)
2. Right to drain stormwater and sewerage (both standard and in Gross)
3. Maintenance
4. Right of Way
5. Maintenance and Eave Overhang
6. Party Wall

4.13 Staging of Development

This application is for the entire Sunfield development, however, given the scale of the proposal, it is anticipated that the project build out will be undertaken over a ten to fifteen-year period, with multiple stages. **Figure 18** below illustrates the proposed staging plan, where it anticipated there will be approximately 25 stages.

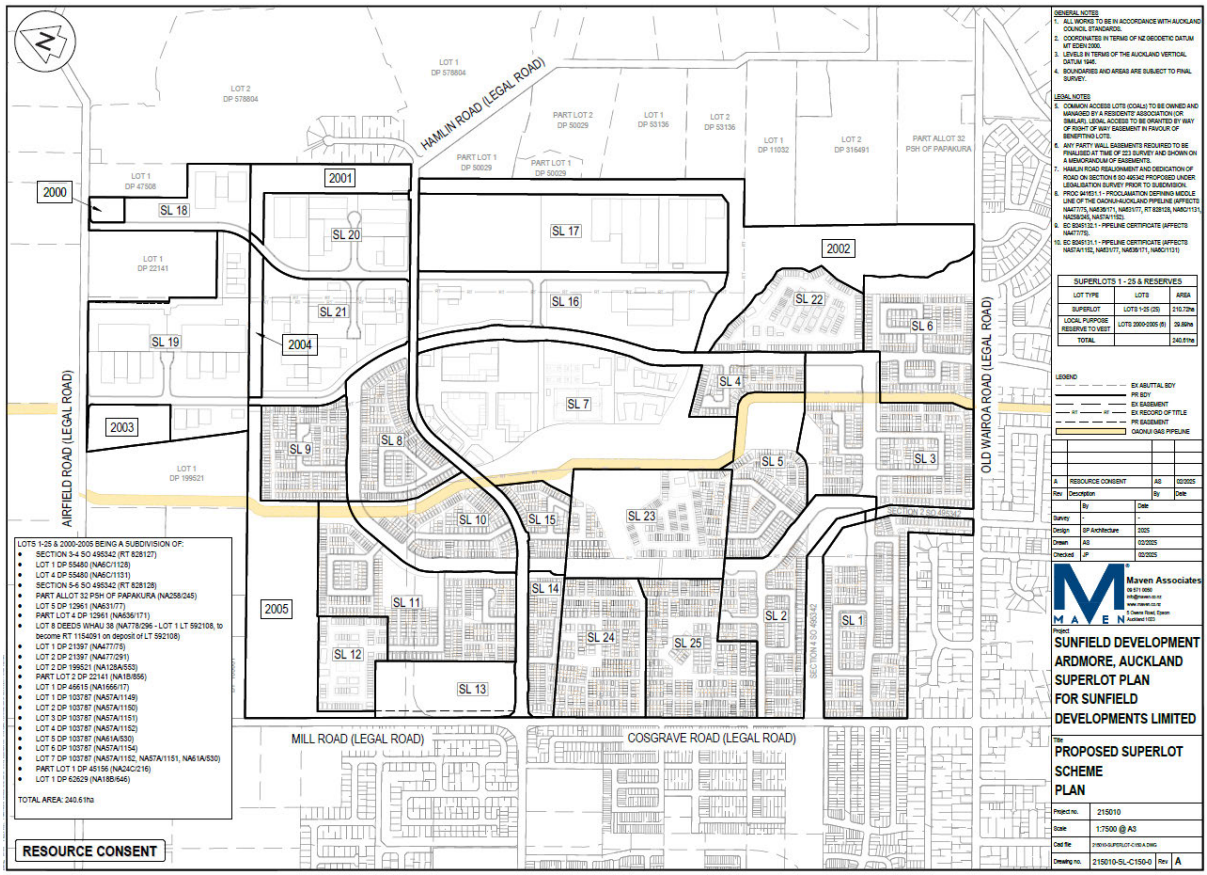

Figure 18: Staging Plan *(Source: Scheme Plans, Maven)*

The staging and construction sequence will follow the above plan, recognising that some stages may be undertaken concurrently, with each stage taking approximately 12 months to construct. **Table 4** below outlines the staging plan in more detail, and includes the infrastructure required at each stage.

	SUNFIELD INFRASTRUCTURE REQUIREMENTS BY STAGE					
STAGE	LOTS Refer Maven Plans 215010-SL-C150-0-13 and SL1-SL25	STORMWATER Refer Maven Plans M-C400 – M-C406	SEWER Refer Maven Plans M-C500-511	ROADING Refer Maven Plans M-300 – 326-5	WATER SUPPLY Refer Maven Plans M-C600-606	UTILITIES
1	353 including a Local Hub	Awakeri Wetlands Stage 2 and 3. Secondary swales conveying SW to Awakeri Wetlands. Internal: Stormwater	External: Low pressure sewer (LPS) network from existing 525Ø wastewater transmission line on Walters Road to the superhot via Walters Road	External: Intersection of proposed Road 2 and Cosgrave Road. External: Upgrade of Road frontage (Stage 1 frontage	External: Extension of water supply from existing 250mm line on western side of Cosgrave Road. Internal: Water	Network extensions of power and communications media to provide for this stage and future stages.

		network and provision for future stages.	and Cosgrave Road. Internal: LPS network and provisions for future stages	only). Internal: New Road Network. Includes Type 7 and Type 10 (refer to M-C310 and M-C351 to M-C356 identity the various types of roads and their cross-sections)	supply network and provisions for future stages	External network upgrades to be advised
2	209	Awakeri Wetlands Stage 2 and 3. Secondary swales conveying SW to Awakeri Wetlands. Internal: Stormwater network and provision for future stages	External: Low pressure sewer (LPS) network from existing 525Ø wastewater transmission line on Walters Road to the superhot via Walters Road and Cosgrave Road. Internal: LPS network and provisions for future stages	External: Intersection of proposed Road 4 and Cosgrave Road. External: Upgrade of Cosgrave Road frontage of Stage 2. External: Signalised intersection of Cosgrave Road and Clevedon Road should Stage 2 follow Stage 1. External: Pedestrian and Cycle links on Cosgrave Road between Walters Road and Clevedon Road Internal: New Road Network. Includes Type 6, & 10.	External: Extension of water supply from existing 250mm line on western side of Cosgrave Road. Internal: Water supply network extension from and provisions for future stages.	Network extensions of power and communications media to provide for this stage and future stages. External network upgrades to be advised

3	330	Awakeri Wetlands Stage 2, 3 & 4 (Swale section only). Swales conveying SW to Awakeri Wetlands. Internal: Stormwater network and provision for future stages.	Internal: Extension of LPS network from Stage 2 and provisions for future stages	Internal: Private network accessed via vehicle crossing from superlot 4.	Internal: Extension of Water supply network from Stage 2 and provisions for future stages.	Network extensions of power and communicatio ns media to provide for this stage and future stages. External network upgrades to be advised
4	312 including a Local Hub	Awakeri Wetlands Stage 2, 3 & 4 (including SW Pond 4). Swales conveying SW to Awakeri Wetlands. Internal: Stormwater network.	Internal: Extension of LPS network from superlot 3.	External: Signalised Intersection on Old Wairoa Road. Internal: Road network from superlot 2. Includes type 2 & 10.	External: Extension of Water supply network from BSP on Airfield Road down Mill Road and Cosgrave Road to Road 4. Internal: Extension of Water supply network from Stage 3.	Network extensions of power and communicatio ns media to provide for this stage and future stages. External network upgrades to be advised
5	165	Awakeri Wetlands Stage 2, 3 & 4 (Swale section only). Swales conveying SW to Awakeri Wetlands. Internal: Stormwater network.	Internal: Extension of LPS network from Stage 2.	Internal: Extension of road network from Stage 2. Includes Type 10. Provisions for future stages	External: Extension of water supply from existing 250mm line on southern side of Cosgrave Road. Internal: Extension of Water supply network from Stage 2 and provisions for future stages.	Network extensions of power and communicatio ns media to provide for this stage and future stages. External network upgrades to be advised

6	215	Swales conveying SW to Awakeri Wetlands. Internal: Stormwater network.	Internal: Extension of LPS network from Stage 3.	External: Intersection of Road 1 and Old Wairoa Road. Internal: Road network from Stage 3. Includes type 6 & 10.	Internal: Extension of Water supply network from Stage 3. External: Connection to the existing 125dia PE in Old Wairoa Road	Network extensions of power and communications media to provide for this stage and future stages. External network upgrades to be advised
7	11 Lots - Employment Precinct	Internal Stormwater Network for Stage 7	Internal: Extension of LPS network from Stage 4.	Internal: Extension of road network from Stage 4. Includes Type 10. Provisions for future stages	Internal: Extension of Water supply network from Stage 4.	Network extensions of power and communications media to provide for this stage and future stages. External network upgrades to be advised
8	202	Perimeter Diversion Swale. SW Pond 1. Swales conveying SW to SW Pond 1. Internal: Stormwater network.	External: Low pressure sewer (LPS) network from existing 525Ø wastewater transmission line on Walters Road to the superlot via Hamlin Road realignment. Internal: LPS network.	Hamlin Road realignment & Intersection of Hamlin Road realignment, Mill Road & Cosgrave Road. Internal: Road network. Includes Type 10	External: Extension of Water supply network from BSP on Airfield Road to site. Extension of water supply network from Stage 7 or Stage 21 and Hamlin Road realignment. Internal: Water supply network and provisions for future stages	Network extensions of power and communications media to provide for this stage and future stages. External network upgrades to be advised

9	219	Perimeter Diversion Swale. SW Pond 1. Swales conveying SW to SW Pond 1. Internal: Stormwater network.	External: Low pressure sewer (LPS) network from existing 525Ø wastewater transmission line on Walters Road to the Stage via Stage 8 or Stage 21. Internal: LPS network.	Extension of road network through Stage 8 or Stages 19 & 21. Internal: Road network. Includes Type 10.	External: Extension of Water supply network from BSP on Airfield Road to site. Water connection from water network in Stages 8 or 21. Internal: Water supply network and provisions for future stages	Network extensions of power and communicatio ns media to provide for this stage and future stages. External network upgrades to be advised
10	150	Perimeter Diversion Swale. SW Pond 1. Swales conveying SW to SW Pond 1. Internal: Stormwater network.	External: Low pressure sewer (LPS) network from existing 525Ø wastewater transmission line on Walters Road to the Stage via Walters Road. LPS network through Hamlin Road realignment. Internal: LPS network.	Hamlin Road realignment & intersection at Intersection of Hamlin Road realignment, Mill Road & Cosgrave Road. Internal: Road network. Includes type 2 & 10.	External: Extension of Water supply network from BSP on Airfield Road to site. Extension of water supply network from Stage 8 and Hamlin Road realignment. Internal: Water supply network and provisions for future stages	Network extensions of power and communicatio ns media to provide for this stage and future stages. External network upgrades to be advised
11	346 Lots including Local Hub	Perimeter Diversion Swale. SW Pond 1. Swales conveying SW to SW Pond 1. Internal: Stormwater network.	External: Low pressure sewer (LPS) network from existing 525Ø wastewater transmission line on Walters Road to the Stage via Walters Road. Extension of LPS network through Hamlin Road realignment and Stage 10. Internal: LPS network.	Hamlin Road realignment & intersection at Intersection of Hamlin Road realignment, Mill Road & Cosgrave Road and Stage 10. Internal: Road network. Includes type 10.	External: Extension of Water supply network from BSP on Airfield Road to site. Extension of water supply network from Hamlin Road realignment or Stage 10. Internal: Water supply network and provisions for future stages	Network extensions of power and communicatio ns media to provide for this stage and future stages. External network upgrades to be advised

12	139 Lots - Lilyburn Village	Perimeter Diversion Swale. SW Pond 1. Swales conveying SW to SW Pond 1. Internal: Stormwater network.	External: Low pressure sewer (LPS) network from existing 525Ø wastewater transmission line on Walters Road to the Stage via Walters Road. Extension of LPS network through Hamlin Road realignment and Stages 10 & 11. Internal: LPS network.	Hamlin Road realignment & intersection at Intersection of Hamlin Road realignment, Mill Road & Cosgrave Road and Stages 10 & 11. Internal: Private network accessed via vehicle crossing from superlot 12.	External: Extension of Water supply network from BSP on Airfield Road to site. Internal: Water connection from network in Stage 11.	Network extensions of power and communications media to provide for this stage and future stages. External network upgrades to be advised
13	School	Perimeter Diversion Swale. SW Pond 1. Swales conveying SW to SW Pond 1. Internal: Stormwater network.	External: Low pressure sewer (LPS) network from existing 525Ø wastewater transmission line on Walters Road to the superlot via Walters Road.	Hamlin Road realignment & intersection at Intersection of Hamlin Road realignment, Mill Road & Cosgrave Road. Access via vehicle crossing on Hamlin Road realignment.	External: Extension of Water supply network from BSP on Airfield Road to site.	Network extensions of power and communications media to provide for this stage and future stages. External network upgrades to be advised
14	109	Perimeter Diversion Swale. SW Pond 1. Swales conveying SW to SW Pond 1. Internal: Stormwater network.	External: Low pressure sewer (LPS) network from existing 525Ø wastewater transmission line on Walters Road to the Stage via Walters Road. LPS network through Hamlin Road realignment. Internal: LPS network.	Hamlin Road realignment & intersection at Intersection of Hamlin Road realignment, Mill Road & Cosgrave Road. Internal: Road network. Includes type 10.	External: Extension of Water supply network from BSP on Airfield Road to site. Extension of water supply network from Hamlin Road realignment. Internal: Water supply network and provisions for future stages	Network extensions of power and communications media to provide for this stage and future stages. External network upgrades to be advised

15	85	Perimeter Diversion Swale. SW Pond 1. Swales conveying SW to SW Pond 1. Internal: Stormwater network.	External: Low pressure sewer (LPS) network from existing 525Ø wastewater transmission line on Walters Road to the Stage via Walters Road. - LPS network through Hamlin Road realignment. Internal: LPS network.	Hamlin Road realignment & intersection at Intersection of Hamlin Road realignment, Mill Road & Cosgrave Road. Internal: Road network. Includes type 10.	External: Extension of Water supply network from BSP on Airfield Road to site. -Extension of water supply network from Hamlin Road realignment. Internal: Water supply network and provisions for future stages	Network extensions of power and communications media to provide for this stage and future stages. External network upgrades to be advised
16	2 Lots - Employment Precinct	Perimeter Diversion Swale. Awakeri Wetlands Stage 2, 3 & 4 (Including SW pond 4). Swales conveying SW to Awakeri Wetlands. Internal: Stormwater network.	LPS network through Hamlin Road realignment & Superlot 7. Internal: LPS network.	Hamlin Road realignment & intersection at Intersection of Hamlin Road realignment, Mill Road & Cosgrave Road. Internal: Road network. Includes Type 4.	External: Extension of Water supply network from BSP on Airfield Road to site. Extension of Water supply network from Superlot 20 Internal: Water supply network and provisions for future stages	Network extensions of power and communications media to provide for this stage and future stages. External network upgrades to be advised
17	3 Lots - Employment Precinct	Perimeter Diversion Swale. Swales conveying SW to Awakeri Wetlands. Internal: Stormwater network.	External: Low pressure sewer (LPS) network from existing 525Ø wastewater transmission line on Walters Road to the superlot via Walters Road. LPS network through Hamlin Road realignment & Stage 16. Internal: LPS network.	Hamlin Road realignment & intersection at Intersection of Hamlin Road realignment, Mill Road & Cosgrave Road. Access via Stage 16 or Hamlin Road	External: Extension of Water supply network from BSP on Airfield Road to site. Water connection from water network in Stage 16.	Network extensions of power and communications media to provide for this stage and future stages. External network upgrades to be advised

18	1 Lot - Employment Precinct	Perimeter Diversion Swale SW Pond 3 Swales conveying SW to Awakeri Wetlands. Internal: Stormwater network.	External: Low pressure sewer (LPS) network from existing 525Ø wastewater transmission line on Walters Road to the superlot via Walters Road. LPS network through Hamlin Road realignment LPS network through Stage 20 Internal: LPS network and provisions for future stages	External: Intersection on Airfield Road. Internal: Road network. Includes type 4.	External: Extension of Water supply network from BSP on Airfield Road to site. Internal: Water supply network and provisions for future stages	Network extensions of power and communications media to provide for this stage and future stages. External network upgrades to be advised
19	6 Lots - Employment Precinct	Perimeter Diversion Swale. SW Pond 2. Swales conveying SW to SW Pond 2. Internal: Stormwater network.	External: Low pressure sewer (LPS) network from existing 525Ø wastewater transmission line on Walters Road to the superlot via Walters Road. LPS network through Hamlin Road realignment LPS network through Stage 21. Internal: LPS network.	External: Intersection on Airfield Road and Airfield Road Frontage upgrade. Internal: Road network. Includes type 4 & 9.	External: Extension of Water supply network from BSP on Airfield Road to site. Internal: Water supply network and provisions for future stages	Network extensions of power and communications media to provide for this stage and future stages. External network upgrades to be advised
20	4 Lot - Employment Precinct	Perimeter Diversion Swale. SW Pond 1. Swales conveying SW to SW Pond 1. Internal: Stormwater network.	External: Low pressure sewer (LPS) network from existing 525Ø wastewater transmission line on Walters Road to the superlot via Walters Road. LPS network through Hamlin Road realignment.	Hamlin Road realignment. Internal: Road network. Includes type 4 & 9.	External: Extension of Water supply network from Stage 18. Internal: Water supply network and provisions for future stages	Network extensions of power and communications media to provide for this stage and future stages. External network upgrades to be advised

			Internal: LPS network.			
21	4 Lots - Employment Precinct	Perimeter Diversion Swale. SW Pond 1. Secondary swales conveying SW to SW Pond 1. Internal: Stormwater network.	External: Low pressure sewer (LPS) network from existing 525Ø wastewater transmission line on Walters Road to the superlot via Walters Road. LPS network through Hamlin Road realignment. Internal: LPS network.	Hamlin Road realignment & intersection at Intersection of Hamlin Road realignment, Mill Road & Cosgrave Road. Internal: Road network. Includes Type 9.	External: Extension of Water supply network from BSP on Airfield Road to site. -Extension of Water supply network from either Stage 19 or 20. Internal: Water supply network and provisions for future stages	Network extensions of power and communications media to provide for this stage and future stages. External network upgrades to be advised
22	221 Lots - Homehill Village	Awakeri Wetlands Stage 2, 3 & 4 (Including SW pond 4). Swales conveying SW to Awakeri Wetlands. Internal: Stormwater network.	External: Low pressure sewer (LPS) network from existing 525Ø wastewater transmission line on Walters Road to the superlot via Walters Road. Internal: Extension of LPS network from either Stage 3 or 4	Internal: Private network accessed via vehicle crossing from Stage 4.	External: Extension of Water supply network from BSP on Airfield Road to site. Internal: Water connection from network in either Stage 3 or 4.	Network extensions of power and communications media to provide for this stage and future stages. External network upgrades to be advised
23, 24 and 25	722	Awakeri Wetlands Stage 2, 3 & 4 (Including SW pond 4). Swales conveying SW to Awakeri Wetlands. Internal: Stormwater network.	External: Low pressure sewer (LPS) network from existing 525Ø wastewater transmission line on Walters Road to the superlot via Walters Road. Internal: Extension of LPS network from either Stage 3 or 4	Internal: Private network accessed via vehicle crossing from Stage 4. External: Cosgrave Road frontage upgrade	External: Extension of Water supply network from BSP on Airfield Road to site. Internal: Water connection from network in either Stage 3 or 4.	Network extensions of power and communications media to provide for this stage and future stages. External network upgrades to be advised

Table 4: Staging Plan with Infrastructure Requirements

5 CONSENT REQUIREMENTS

5.1 Introduction

Fast-track approval is being sought to enable the Proposal (as described in this report and all the documents submitted with the application). This application includes all necessary resource consents required to enable the Proposal to be given effect to, except for any consents required under other legislation, which will be applied for separately (refer part 5.3 below) and except for Awakeri Wetlands – Stages 2 and 3, as outlined in section 2.9 above.

5.2 Auckland Unitary Plan – Operative in Part ("the Unitary Plan")

The following tables outline the reasons for consent when assessed against the relevant Unitary Plan provisions, including those of the Mixed Rural Zone, the Future Urban Zone and the Auckland-wide provisions including, subdivision, land disturbance, contamination and remediation, and transportation. Accordingly, resource consent is requested for:

a. these activities identified in the tables below as requiring resource consent;
b. any activity requiring resource consent which is not identified in the tables below.

The proposed development is considered to be a **non-complying** activity overall. Given the comprehensive and integrated approach of the Sunfield Masterplan and the overlapping nature of the effects of the application, permitted activities do not form part of the proposal and there is no reliance placed on any permitted activities.

CHAPTER H18– Future Urban Zone	
Table H18.4.1 Activity Table	**Activity Status**
(A2) New buildings, building additions and accessory buildings	**Same status that applies to land use activities**
(A28) Dwellings that do not comply with Standard H18.6.8	**Non Complying**
(A38) Restaurants and cafes not otherwise provided for	**Discretionary**
(A47) Care centres for more than 10 people	**Restricted Discretionary**
(A48) Community Facilities	**Discretionary**
(A48) Healthcare Facilities	**Discretionary**
(A48) Education Facilities	**Discretionary**
(A54) Organised Sport and Recreation	**Restricted Discretionary**

H18.6 Development Standards	**Performances**
H18.6.3 Yards (20m Front - arterial, 10m - front, 12m – side or rear, 20m – riparian)	The development will infringe these controls = **restricted discretionary** activity

H18.6.8 Dwellings – No more than 1 per site	The development will infringe this control = **restricted discretionary** activity

CHAPTER H19– Rural – Mixed Rural Zone	
Table H19.8.1 Activity Table	**Activity Status**
(A12) Disposal of non-residential waste that does not comply with H19.10.1(1) and (2)	**Discretionary**
(A16) Rural commercial services	**Restricted Discretionary**
(A21) Rural industries	**Restricted Discretionary**
(A26) Dwellings	**Refer to H19.8.2 (A78)**
(A36) Restaurants and cafes not otherwise provided for	**Discretionary**
(A45) Care Centres for more than 10 people	**Restricted Discretionary**
(A40) Storage and lock up facilities	**Discretionary**
(A46) Community Facilities	**Discretionary**
(A47) Healthcare Facilities	**Discretionary**
(A48) Education Facilities	**Discretionary**
(A52) Organised Sport and Recreation	**Restricted Discretionary**
(A78) Dwellings not otherwise provided for	**Non complying**
C1.7. Industrial Activities (not provided for)	**Discretionary**

H19.6 Development Standards	**Performances**
H19.10.3 Yards (20m Front - arterial, 10m - front, 12m – side or rear, 20m – riparian)	The development will infringe these controls = **restricted discretionary** activity
H19.10.10 Dwellings – No more than 1 per site	The development will infringe this control = **restricted discretionary** activity

CHAPTER E39– Subdivision	
Table E39.4.1	**Activity Status**
E39.4.1(A5) Subdivision for an esplanade reserve	The proposal requires resource consent for a **restricted discretionary activity.**
E39.4.1(A6) Subdivision for an esplanade reserve	The proposal requires resource consent for a **discretionary activity.**
E39.4.1(A11) Subdivision for open space, reserve or road realignment	The proposal requires resource consent for a **discretionary activity.**
E39.4.1(A13) Subdivision not complying with E39.6.5.1 (Minimum average site size and minimum site size)	The proposal requires resource consent for a **Non-complying activity.**
E39.4.3(A28) Subdivision for open space, reserve or road realignment	The proposal requires resource consent for a **Discretionary activity.**
E39.4.1(A29) Any other subdivision not complying with E39.4.1 or E39.4.3	The proposal requires resource consent for a **Non-complying activity.**

CHAPTER E8– Stormwater Discharge/Diversion	
Table E8.4.1 Activity Table	**Activity Status**
E38.4.1(A11) Discharge of Stormwater to land from a new stormwater network	The Project includes discharge of stormwater. Accordingly, the Proposal requires resource consent for **discretionary activity**.

CHAPTER E11 – Land Disturbance – Regional	
E11.4.1 Activity Table – All Zones and Roads	**Activity Status**
(A5) Earthworks greater than 50,000m2	The proposed earthwork is across an area of 244 hectares and accordingly is a **restricted discretionary activity.**

CHAPTER E12 – Land Disturbance – District	
E12.4.1 Activity Table – All Zones and Roads	**Activity Status**
(A6) Earthworks greater than 2,500m^2 are to be assessed as a restricted discretionary activity	Earthworks across an area of 244 hectares are proposed and accordingly, resource consent for a **restricted discretionary activity** is required.
(A10) Earthworks greater than 2,500m^3 are to be considered as a restricted discretionary activity	Earthworks involving 3,290,000m^3 are proposed, and accordingly, resource consent for a **restricted discretionary activity** is required.

CHAPTER C– General Rules	
Rule C1.7 – Activities Not Provided For	**Activity Status**
(C1.7(1)) Activity not otherwise provided for which includes any activity not otherwise provided for as part of the proposal.	Aspects of the proposal will require resource consent for a **discretionary activity**

AUCKLAND-WIDE: CHAPTER E27 – TRANSPORTATION	
E27.4.1 Activity table	**Comment**
(A3) Any activity or subdivision which exceeds the trip generation standards set out in Standard E27.6.1 is a restricted discretionary activity	The proposal is for: • a residential development of greater than 100 dwellings. • education facilities for primary school (167 students). • office space greater than 5,000m^2. • retail greater than 1,667m^2. • warehousing and storage greater than 20,000m2. • other industrial activities 10,000m^2. Accordingly, resource consent for a **restricted discretionary activity** is required.

E27.6 Development standards	Performance
1. Trip generation Where a proposal exceeds 100 dwellings, resource consent for a restricted discretionary activity is required.	**Restricted discretionary activity** resource consent required.

CHAPTER E30 – CONTAMINATED LAND	
Table E30.4.1 Activity Table – All zones and roads	**Activity Status**
(A6) Discharges to land from land subject to contamination	The contamination assessment (refer Document 32) concludes that the proposed works will require a **restricted discretionary and discretionary** activity resource consent under the Auckland Unitary Plan.
E30.6.1 Development Standards	**Performance**
.4 Discharges of contaminant into air, or into water, or onto or into land from land not used for rural production activities a. For in-situ soil and fill material, the concentrations of contaminants (relevant to the site's history) in soil or fill material, or the 95% upper confidence limit of the mean, determined in accordance with the Ministry for the Environment Contaminated Land Management Guidelines No. 5 – Site Investigations and Analysis of Soils (Revised 2011), must not exceed: (a) the criteria specified in Table E30.6.1.4 Permitted Activity Soil Acceptance Criteria; or (b) for contaminants not in Table E30.6.4.1: … (a) The natural background levels for that soil or fill material or the relevant background levels specified in Table E30.6.1.4.2 Background ranges of trace elements in Auckland soils sources from Table 3 of TP153: 2001 Background Concentrations of Inorganic Elements in Soils from the Auckland Region. b. Any discharge from land containing elevated levels of contaminants must not contain separate phase liquid contaminants including separate phase hydrocarbons.	Focus Environmental have prepared a PSI, DSI, SMP and RAP. A **restricted discretionary** activity resource consent is considered to be required under this standard.

E36 NATURAL HAZARDS AND FLOODING	
4.1 Activity table	**Performance**
E36.4.1(A41) Overland Flow Path Diversion Diverting the entry or exit point of any overland flow path	This is proposed as part of the proposal. Accordingly, resource consent is required for a **restricted discretionary activity.**
E36.4.1(A42) Buildings or Structures within an Overland Flow Path Any buildings or structures within any overland flow path	This is proposed as part of the proposal. Accordingly, resource consent is required for a **restricted discretionary activity.**
E36.4.1(A37) Flood prone areas – 1% AEP All structures and buildings within the 1% AEP floodplain	This is proposed as part of the proposal. Accordingly, resource consent is required for a **restricted discretionary activity.**
E36.4.1(A51) All other buildings and structures on land subject to instability	Resource consent is required for a **restricted discretionary activity.**

E40 TEMPORARY ACTIVITIES – TABLE 11	
4.1 Activity table	**Performance**
(A24) Specific temporary activities that are not provided as a permitted activity in rules (A12) to (A23) are a restricted discretionary activity	The proposed construction duration will exceed the 24-month limit for a permitted activity as provided for under Rule (A20). Accordingly, resource consent is required for a **restricted discretionary activity.**

E7 Groundwater Diversion	
E7.4.1 Activity table	**Performance**
(A28) Diversion of groundwater not otherwise provided for	This requires a **restricted discretionary activity.**

D24.4.2 Ardmore Airport – TABLE 4.1	
4.3.1 Activity table	**Performance**
(A13) A new single dwelling in 65dBLdn	**Discretionary activity**
(A14) New activities sensitive to aircraft noise 60dB to 65 dB	**Discretionary activity**
(A15) New activities sensitive to aircraft noise 60dB to 65 dB that do not comply with standard D24.6.2(1) and D24.6.2(5)	**Non complying activity**
(A20) New activities sensitive to aircraft noise 55dB to 60 dB	**Restricted Discretionary activity**
(A21) New activities sensitive to aircraft noise 55dB to 60 dB that do not comply with standard D24.6.2(1) and D24.6.2(5)	**Non complying activity**
(A26) Subdivision within 65dB area with permanent legal mechanisms to avoid the establishment of additional activities sensitive to noise	**Discretionary activity**
(A27) Subdivision within 65dB area without permanent legal mechanisms to avoid the establishment of additional activities sensitive to noise	**Non complying activity**

(A26) Subdivision between 60-65dB and 55-60dB	**Restricted Discretionary activity**

5.3 National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health 2011 (NESCS)

A contamination report has been provided (Document 32), which contains a number of PSIs (Preliminary Site Investigation), DSIs (Detailed Site Investigation), and a covering report providing an over-arching summary.

The proposed works include land that is 'a piece of land' that is acknowledged to have had an activity or industry described in the Hazardous Activity and Industry List (HAIL) which is likely to have been undertaken on the land.

The results of the DSIs conclude that elevated concentrations of contaminants, and therefore the regulations of the NESCS will be triggered by future residential development of the properties at 508 Old Wairoa Road, 80 Hamlin Road and 279 Airfield Road. As per regulation 10 of the NESCS, this is a **restricted discretionary** activity.

The regulations of the NES are triggered as a **discretionary activity**, as per regulation 11 of the NESCS, as future residential development of the remaining properties of Sunfield will occur for which DSIs have not yet been conducted, with PSIs not stating that it is highly unlikely that there will be a risk to human health.

5.4 National Environmental Standards for Freshwater 2020 (NESF)

The natural inland wetland within the subject site (see section 7.11) will be protected and enhanced as part of this proposal, with drainage of the natural inland wetland not being proposed.

Earthwork activities and vegetation clearance for the restoration of the natural inland wetland are generally not intended to occur within 10m of the natural inland wetland, however, it is anticipated that a small amount of earthworks and vegetation clearance may occur within this 10m threshold. This is a **restricted discretionary** activity pursuant to regulation 39 of the NESF, as the area of earthworks may be in excess of the lesser of 500m^2 or 10% of the area of the natural inland wetland. This has been applied for out of an abundance of caution.

The construction of a wetland utility structure (footpaths, boardwalks and bridges) is proposed to occur within the natural inland wetland within Wai Mauri Stream Park. Regulation 42 of the NESF states that the

construction of a wetland utility structure is a **restricted discretionary** activity when vegetation clearance or earthworks/land disturbance is required within 10m of a natural inland wetland.

5.5 Reasons for Consent – Summary

Overall, the Proposal is to be assessed as a **non-complying activity** under the Unitary Plan.

5.6 Other consents required

There are no other resource consents required for the Sunfield Development that have not been applied for as part of this application, noting the separate consent process for Awakeri Wetlands – Stages 2 and 3, as outlined in section 2.9 above. The only other approvals required for the project are set out below.

5.6.1 Partial realignment of Hamlin Road and associated road stopping

The proposal will require the realignment and partial stopping of Hamlin Road. The works involve:

a. the stopping of part of the western end of Hamlin Road and the transfer of that area of land to the applicant;

b. the vesting of an equivalent area of land (where the relocated road is proposed) in Council as (replacement) legal road. The realigned portion of Hamlin Road is to the south of its current alignment.

Figures 19 and 20 illustrate the current and proposed alignment of Hamlin Road. The current alignment is a straight road from Village Way to the Cosgrave Road/Mill Road intersection. The proposed alignment is from Village Way, curving to the south, so the western end of Hamlin Road meets Cosgrave Road at the intersection with Walters Road. This is considered to be a safer and more efficient road network, with a reduction of intersections along Cosgrave Road.

This process will be carried out under either the Local Government Act (LGA) or the Public Works Act (PWA) and will be addressed subsequent to the granting of this consent. The applicant will work with Auckland Council or Auckland Transport separately on this issue. A condition of consent has been proposed to ensure that titles do not issue for any lots that require access from the re-aligned portion of Hamlin Road and any lots that are configured on the basis of the re-alignment until the road stopping and re-routing has been

approved. This will ensure that the parts of the development affected by the proposed road stopping and re-alignment will not progress until the required road stopping procedures are approved.

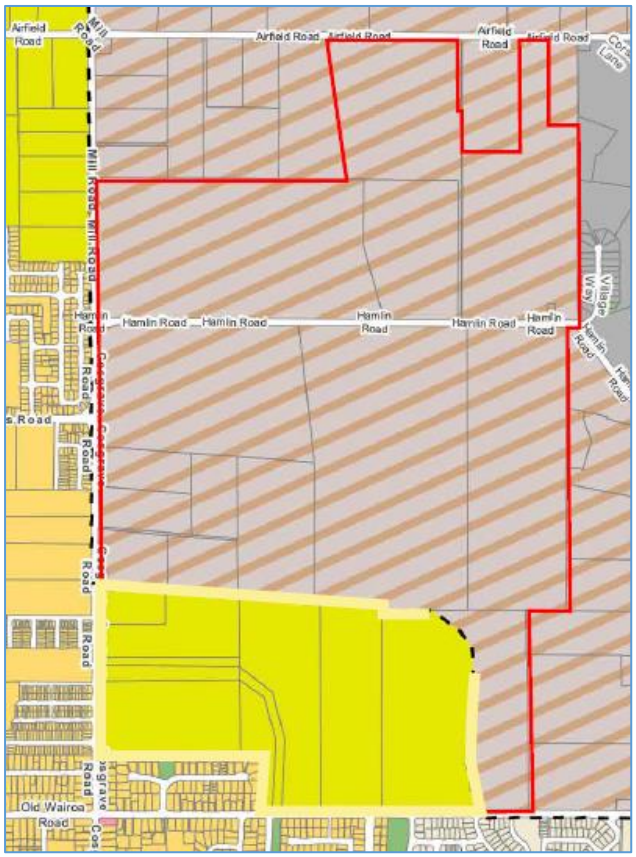

Figure 19: Current Alignment of Hamlin Road *(Source: Studio Pacific – Masterplan)*

Figure 20: Proposed Alignment of Hamlin Road *(Source: Studio Pacific – Masterplan)*

5.6.2 Network Discharge Consent

A Network Discharge Consent (NDC) was granted for Auckland Council's public stormwater network in April 2019. This NDC applies to:

- existing diversions and discharges of stormwater from the public network
- new or modified diversions and discharges resulting from stormwater network upgrades
- future diversions and discharges resulting from extending the public network to service intensification and growth.

Given the Awakeri Wetlands is anticipated to be a public network vested with Auckland Council and the Eastern Catchment is discharging at pre-development flows through existing outfalls, it is considered that this NDC covers the future stormwater discharges and diversions resulting from this proposal.

5.6.3 *Wildlife Act 1953*

A site-specific Department of Conservation authorisation under the Wildlife Act 1953 to relocate lizards when found is not likely to be required, as many herpetologists hold regional Wildlife Act Authority (WAA) permits to relocate lizards within the Auckland Region. Consequently, if the project herpetologist holds such a permit, a site-specific permit will not be required. A Lizard Management Plan is proposed as a condition of consent, which will be prepared in accordance with Department of Conservation guidelines by the project herpetologist, and will include reference to the relevant WAAs which are held (or are required) to permit the works.

5.6.4 *Heritage New Zealand Pouhere Taonga Act 2014*

The archaeology assessment (Document 27) has identified one recorded archaeological site, R11/3435, being a villa at 80 Hamlin Road. Demolition of the villa at 80 Hamlin Road is proposed, recognising it is situated within the Employment Precinct, and it is therefore challenging to retain such a building which would be out of context within the subject development proposal whilst creating land development inefficiencies.

Whilst this building is not a scheduled building under the Auckland Unitary Plan – Operative in Part, an authority issued by Heritage NZ must be obtained, and will be applied for separately.

5.6.5 *Lapse Date*

Section 26 of the Act states that a decision document for a resource consent may specify the date on which the approval lapses unless it is given effect to by the specified date. The Act further specifies that there is no maximum date and that any specified lapse date must be no less than 2 years.

Given that this application involves approximately 4,000 residential units and a significant quantity of commercial development (Town Centre, Employment Precinct, Healthcare activities and Local hubs), it is considered that an extended lapse period is appropriate. This will be particularly important because subdivision consents are not considered to have commenced until a s223 scheme plan has been submitted to Council. Therefore a 15-year lapse period is sought. This is considered to be appropriate given the scale and complexity of the proposed development.

6 FAST-TRACK APPROVALS ACT 2024

6.1 s29 imposes s11 pre-lodgement consultation requirements

Before lodging an application, the applicant must consult:

a. the relevant local authorities, being Auckland Council

Response: A pre-application meeting with planners from the Auckland Council Premium Resource Consent team was held on the 11th of December 2024, where the Sunfield masterplan and proposal details as well as the key design philosophies was outlined to the Council officers.

b. any relevant iwi authorities, hapū, and Treaty settlement entities, including:
   (i) iwi authorities and groups that represent hapū that are parties to relevant Mana Whakahono ā Rohe or joint management agreements
   (ii) the tāngata whenua of any area within the project area that is a taiāpure-local fishery, a mātaitai reserve, or an area that is subject to bylaws made under Part 9 of the Fisheries Act 1996

Response: Not applicable – Refer to Document 6 – Schedule of Provisions Relevant to Māori.

c. any relevant applicant groups with applications for customary marine title under the Marine and Coastal Area (Takutai Moana) Act 2011

Response: Of the six Iwi Authorities involved with Sunfield, three – Ngaati Tamaoho, Ngaati Te Ata Waiohua, Ngaati Whanaunga – are applicants for customary marine title under the Takutai Moana Act 2011. However, those applications relate to coastal and marine areas of Auckland. Sunfield is located on land a significant distance from coastal and marine areas and as such the applications are not applicable.

Refer to Document 6 – Schedule of Provisions Relevant to Māori

d. ngā hapū o Ngāti Porou, if the project area is within or adjacent to, or the project would directly affect, ngā rohe moana o ngā hapū o Ngāti Porou

Response: Not applicable – Refer to Document 6 - Schedule of Provisions Relevant to Māori

e. the relevant administering agencies, being the Ministry for the Environment

Response: Winton provided details on Sunfield and the Sunfield masterplan to Ilana Miller, the General Manager Delivery & Operations Partnerships, Investment and Enablement at the Ministry of the Environment on 3 December 2024.

Winton sent a letter to James Palmer, the CEO of the Ministry for the Environment which detailed the Sunfield proposal, included a copy of the Sunfield Concept Masterplan document and an offer to meet of 20 December 2024.

A follow up email was sent on 23 January 2025 given no response had been received.

f. [land exchange]

Response: Not applicable

6.1.1 30 [Obtain confirmation from Auckland Council that there are no existing resource consents of the type described in s30(3)(a)]

Response: Confirmation from Auckland Council (Document 46) has been provided, via correspondence dated 30 January 2025, that there are no existing resource consents associated with the same activity using the same natural resource.

6.1.2 42(1)(a) and (3)(a) [Technical lodgement requirements]

Response: This application is for one substantive application, and the applicant is eligible to apply for all corresponding approvals under the Resource Management Act 1991.

6.1.3 43(1)(a) Lodgement in the form and manner approved by the EPA.

Response: The application has been lodged in accordance with the prescribed form and in the manner approved by the EPA.

6.1.4 43(1)(b)(i) explain how the project to which the application relates is consistent with the purpose of this Act; or

Response: The stated purpose of the Act is *"to provide a fast-track decision making process that facilitates the delivery of infrastructure and development projects with significant regional or national benefits".* It is considered the project meets the required thresholds of the Act as set out in the assessment below.

The Economics Assessment undertaken by Property Economics (Document 16) outlines the significant regional benefits of the Sunfield proposal. This includes the following:

- The southern Auckland markets are anticipated to have an additional 207,470 residents over the next 31 years (2022-2053), meaning a net growth in the catchment being proportionately equivalent to a 35% increase in the population. Average annual growth for these catchments over this period equates to around 6,690 people and nearly 2,460 dwellings per annum. The proposal will open up and make available approximately 244.5 hectares of land with 3,854 healthy homes, consisting of individual homes and 3 retirement villages with independent living units. This will improve housing stock and affordability by supporting competitive land development markets and contribute significantly to the regional supply of housing in the southern Auckland catchment.

- The total economic impact on business activity within Auckland as a result of the Sunfield development is estimated to be around $4.68 billion. In terms of employment multipliers this would contribute around 8,130 full time equivalents during the peak development and operation year within Auckland, with a total number of full time equivalents at around 24,700 over the development period.

- Property Economics estimates a potential capacity reduction of approximately 7,000 dwellings in the south Auckland catchment based on the identified Future Urban Zone removals caused by the implementation of the Future Development Strategy by Auckland Council. The proposed development will contribute significantly to this regional shortfall of dwelling requirements.

Other significant benefits include:

- The Awakeri Wetlands not only provides a functional / practical infrastructure solution for stormwater across the entire Property but also creates a quality public asset in the form of an attractive public space including a boardwalk network along the edge of the channel.

- Sunfield will provide its own public transport service through the Sunbus autonomous electric vehicle shuttle fleet providing connections throughout the development and to the rail stations in Papakura and Takanini, indicating the scale of the proposed development.

- A number of roading network upgrades are proposed within the surrounding area. Mill Road abuts the Property and has recently been classified as a Road of National Significance. The Sunfield development will move away from a reliance on private motor vehicles toward a future-thinking people-centric collection of liveable neighbourhoods. This approach will create opportunities that will lead to healthier and more sustainable outcomes now and the future. Meeting the needs of communities requires that Sunfield considers all aspects of life and integrates housing, employment opportunities, amenity and open space to enable neighbourhoods to become more self-sufficient and provide for higher standards of living in compact ways. In short, Sunfield will provide a sustainable and environmentally friendly 15 minute neighbourhood, not seen before in New Zealand. The proposed development will support these national initiatives.

- As outlined previously, a comprehensive and significant engineering solution has been developed to manage the stormwater that affects the Property. This solution takes the form of an extension to the existing stormwater conveyance channel that has been designed to provide an overall stormwater solution.

6.1.5 43(1)(c) Demonstrate that the project does not involve any ineligible activities

Response: This application does not seek approval for any ineligible activity.

6.1.6 43(1)(e)(ii) Relevant requirements listed in s43(3)(a) as detailed in clauses 5-8 of Schedule 5

Response: The application addresses the subsection 3 requirements in that it seeks resource consents (3(a)) and therefore addresses clauses 5 to 8 of Schedule 5.

6.1.7 43(1)(f) Requirements of application subject of a determination under s39 (linear infrastructure).

Response: N/A - The application does not relate to linear infrastructure on Māori land.

6.1.8 43(1)(h) [Priority project requirement]

Response: This application does not relate to a priority project.

6.1.9 43(1)(i) Deadline specified under s28(3)(d).

Response: N/A - The application is not subject to this requirement as no notice has been given under section 28(3)(d).

6.1.10 43(1)(j) Must pay required fee when lodging application

Response: The required fee will be paid when the application is lodged.

6.2 43(2) Requires the application to include the information required by s13(4):

6.2.1 13(4)(a) Description of the project and the activities it involves.

Response: Refer to Section 4 of this report – Proposal and to the Sunfield Concept Masterplan (Document 3a) for full details of the proposal and the activities it involves.

6.2.2 13(4)(b) Not specified in the FT Act as a requirement, but assumed to be necessary Proposed approvals being requested under this Application.

Response: Refer to Section 5 of this report for full details of the approvals requested under this application. Resource consent is required for this proposal. No other approvals are being sought.

6.2.3 13(4)(c) Demonstrate that the project does not involve any ineligible activities

Response: This project does not involve or include any of the activities described in Section 5 of the Act.

6.2.4 13(4)(d) Description or map of the whole project area that identifies its boundaries in sufficient detail to enable consideration of the Application

Response The below map (**Figure 21**) clearly identifies the project area and surrounds. Further, Document 3a comprises the Masterplan for the development and includes several maps and plans that clearly identify the Site and its boundaries. This information is also included in sections 2 and 3 above, within this report.

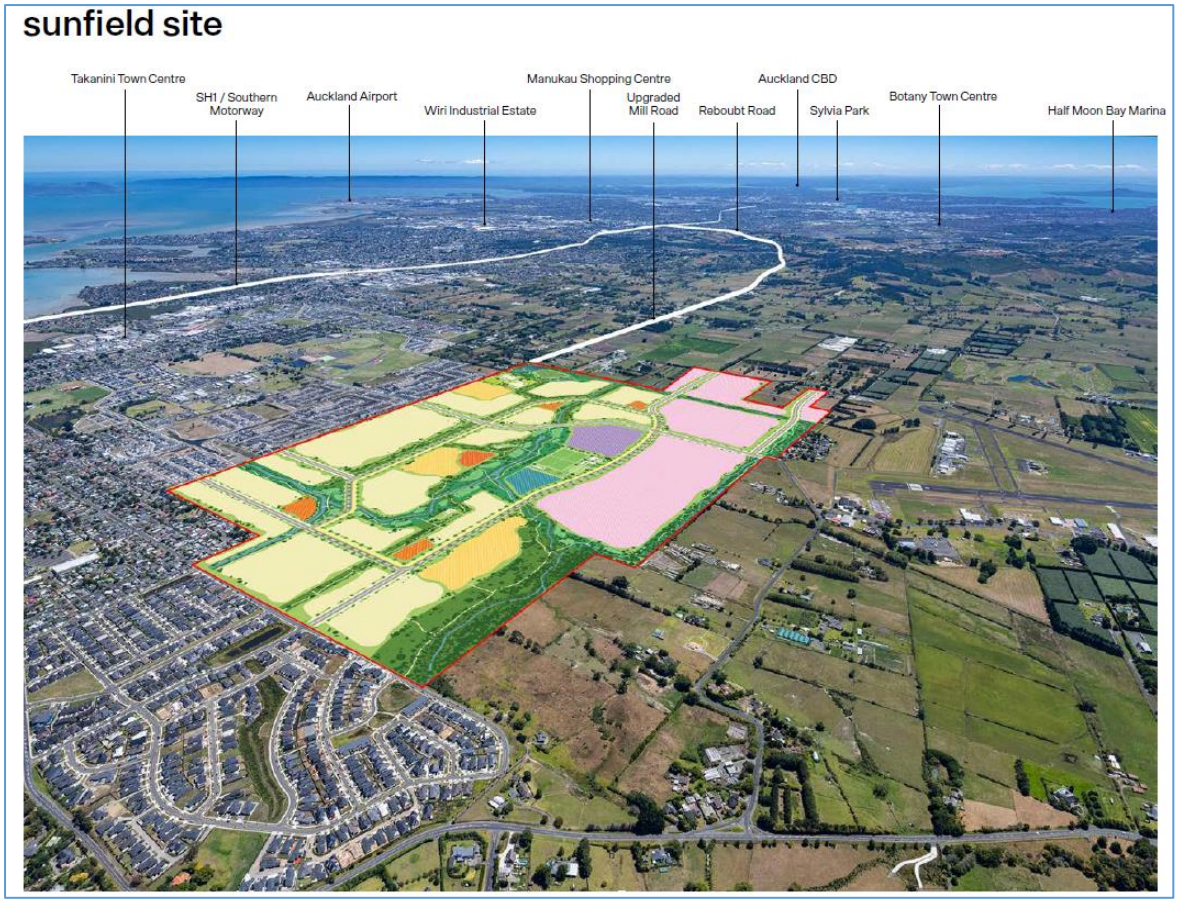

Figure 21: Sunfield Site *(Source: Studio Pacific – Masterplan)*

6.2.5 13(4)(e) Anticipated commencement and completion dates for construction activities (where relevant).

Response The project build out period is envisaged as being undertaken over a ten to fifteen year period, with the commencement of construction starting as soon as possible, following the necessary approvals being in place.

6.2.6 13(4)(f) Statement of whether the project is planned to proceed in stages and, if so:

(i) outline of the nature and timing of the stages;

The nature, extent and timing of the stages, including land-use development and required infrastructure is outlined in section 4.13 of this report.

(ii) statement of whether a separate and substantive application is to be lodged for each of the stages;

Not applicable. All stages are included in this application.

(iii) explanation of how each stage meets the criteria in section 22.

Not applicable. This is a listed project and not subject to the separate referral process.

6.2.7 13(4)(g) Statement of whether a part of the project is proposed as an alternative project in itself

Response Not applicable – no part of the project is proposed as an alternative project in itself.

6.2.8 13(4)(h) Description of the anticipated and known adverse effects of the project on the environment.

Response Refer to section 7 of this report for the detailed assessment of adverse effects on the environment and to the technical assessments submitted with this application.

6.2.9 13(4)(i) Statement of any activities involved in the project that are prohibited activities under the RMA 1991.

Response No prohibited activities are proposed as part of this application.

6.2.10 13(4)(j)List of the persons the applicant considers are likely to be affected by the project, including:

(i) relevant local authorities;

Response Auckland Council

(ii) iwi authorities and groups that represent hapu that are parties to relevant Mana Whakahono ā Rohe or joint management agreements;

Response N/A – refer Document 6 – Schedule of Provisions Relevant to Māori

(iii) other relevant iwi authorities;

Response As detailed within the Sunfield Mana Whenua / Māori Engagement Report dated February 2025 prepared by Navigator Limited (the 'Sunfield Mana Whenua / Māori Engagement Report'), which is Document 5 of this application, the relevant iwi authorities are:

- Ngaati Tamaoho,
- Ngaati Te Ata Waiohua,
- Te Akitai Waiohua,
- Ngaati Whanaunga,
- Ngāti Paoa, and
- Ngai Tai ki Tamaki

(iv) relevant Treaty settlement entities;

Response N/A – refer Document 6.

(v) relevant protected customary rights groups and customary marine title groups;

Response N/A – refer Document 6.

(vi) ngā hapū o Ngāti Porou, if the project area is within or adjacent to, or the project would directly affect, ngā rohe moana o ngā hapū o Ngāti Porou;

Response N/A – refer Document 6.

(vii) relevant applicant groups under the Marine and Coastal Area (Takutai Moana) Act 2011;

Response N/A – refer Document 6.

(viii) persons with a registered interest in land that may need to be acquired under the Public Works Act 1981.

Response N/A, no land is required to be acquired under the Public Works Act 1981.

6.2.11 13(4)(k) Summary of:

(i) the consultation undertaken for the purposes of s11 [which is referenced in s29] and any other consultation undertaken on the project with the persons and groups referred to in paragraph (j) above

(ii) how the consultation has informed the project

Response Refer to section 11 of this report, which addresses consultation undertaken and the outcomes from consultation.

6.2.12 13(4)(l) List of any Treaty settlements that apply to the project area, and a summary of the relevant principles and provisions in those settlements.

Response Refer Document 6 – It is acknowledged that the Sunfield project area is partially covered by a statutory acknowledgement stemming from the Ngaati Tamaoho Claims Settlement Act 2018. The southern section of the Property is covered by the Otūwairoa Stream statutory acknowledgement. This acknowledges the ancestral significance of this area to the Ngaati Tamaoho people, and the importance of the waterways, wetlands and their flow into Ngaati Tamaoho tupuna moana Te Mānukanuka O Hoturoa/Te Maanuka. A statutory acknowledgement is a formal legal acknowledgement by the Crown that recognises the mana of tangata whenua in relation to specified areas - particularly the cultural, spiritual, historical and traditional associations with an area. It is a legal recognition of Ngaati Tamaoho cultural values in the lands and waters of this area and requires consultation with Ngaati Tamaoho as Mana Whenua and information on resource consent activities affecting their statutory acknowledgement. Ngaati Tamaoho have provided details on this statutory acknowledgment within their Cultural Values Assessment which accompanies this application within the Sunfield Mana Whenua / Māori Engagement Report and are described in further detail below.

The assent of the Ngaati Tamaoho Claims Settlement Act 2018 occurred on 10 July 2018. Under the Ngaati Tamaoho Deed of Settlement with the Crown, 37 land areas and waterways were offered as statutory acknowledgement.

Of those 37 land areas and waterways, one waterway - Otūwairoa Stream and its tributaries - Waipokapo, Mangapu, Waihoehoe Streams – has statutory acknowledgement status. This Otūwairoa Stream statutory acknowledgement includes an area of the southwest

corner of the Sunfield project area. The Otūwairoa Stream statutory acknowledgement is shown in the map attached as Appendix 1 to the Sunfield Mana Whenua / Māori Engagement Report (Document 5), and is taken from the Deed of Settlement between Ngaati Tamaoho and the Crown with the Sunfield project area overlayed.

No other provision of the Deed of Settlement between Ngaati Tamaoho and the Crown applies to the Sunfield project area.

6.2.13 13(4)(m) Description of any processes already undertaken under the Public Works Act 1981 in relation to the project.

Response N/A – no Public Works Act 1981 processes required or undertaken in relation to the project.

6.2.14 13(4)(n) Any relevant principles or provisions in the Ngā Rohe Moana o Ngā Hapū o Ngāti Porou Act 2019.

Response N/A – refer Document 6.

6.2.15 13(4)(o) Information identifying the parcels of Māori land, marae, and identified wahi tapu within the project area.

Response Not applicable. No parcels of Māori land, marae and identified wahi tapu are within the Sunfield project area – refer Document 6.

6.2.16 13(4)(p) a statement of whether the applicant is seeking a determination under section 23 and, if so, an assessment of the effects of the activity on the relevant land and on the rights and interests of Māori in that land:

Response N/A – the applicant is not seeking a determination under s23.

6.2.17 13(4)(q) [Linear infrastructure requirements]

Response: N/A – the applicant is not seeking a determination under s24(2).

6.2.18 13(4)(r) [Electricity infrastructure requirements]

Response: N/A – the applicant is not seeking a determination under s24(4).

6.2.19 13(4)(s) Description of the applicant's legal interest (if any) in the land on which the project will occur, including a statement of how that affects the applicant's ability to undertake the work.

Response Refer to section 2.2 above in this report which details the applicant's legal interest in the land upon which the project will be delivered and the applicant's ability to undertake the work required to deliver the project.

6.2.20 13(4)(t) Outline of the types of consents, certificates, designations, concessions, and other legal authorisations (other than contractual authorisations or the proposed approvals) that the applicant considers are needed to authorise the project, including any that the applicant considers may be needed by someone other than the applicant.

Response A proposed road closure and realignment of Hamlin Road is required for the project. This can be authorised under the Local Government Act or the Public Works Act and will be progressed once this Fast-track Approval application process is concluded.

In addition, it is also considered that s176 RMA consents may be required from the requiring authorities that have designations over parts of the development site (First Gas Limited and Auckland Council).

The applicant has engaged with the potentially affected requiring authorities being First Gas Limited and Auckland Council regarding the project and appropriate management approaches (including conditions of consent) are proposed to ensure any potential effects on the designated works are avoided, remedied or mitigated.

As outlined in section 5.6.3, regulatory authorisations are not required under the Wildlife Act 1953 for the likely relocation of lizards. Section 5.6.4 of this report outlines that approval is not sought as part of this application under the Heritage New Zealand Pouhere Taonga Act 2014 for the demolition of the villa at 80 Hamlin Road.

6.2.21 13(4)(u) Whether any activities that are involved in the project, or are substantially the same as those involved in the project, have been the subject of an application or a decision under a specified Act and:

(i) if an application has been made, details of the application;

(ii) if a decision has been made, the outcome of the decision and the reasons for it.

Response The applicant has previously lodged regulatory approvals for aspects of Sunfield. The applications that have been lodged and the status of each application is set out below:

- Awakeri Wetlands – Stages 2 and 3 (as per section 2.9) – resource consents are currently being processed by Auckland Council.

- Private Plan Change Application for the FUZ land in the south-western corner of Sunfield – Formal Clause 23 requests for further information have been received from Council.

  The Private Plan Change area comprises a comprehensive land holding of approximately 56.5 hectares with the request seeking the rezoning of this land from FUZ to predominantly Residential – Mixed Housing Urban, with the aim of delivering a yield of around 1,550 new residential lots. It also seeks the rezoning of part of the land to Business – Neighbourhood Centre and Open Space – Informal Recreation to support the primary residential zoning.

6.2.22 13(4)(v) Description of whether and how the project would be affected by climate change and natural hazards.

Response Refer to response provided in the assessment of effects, sections 7.4 and 7.21 below, for climate change and natural hazards assessment. Also refer to Documents 36 and 37 of the application – Sustainability and Greenhouse Gas assessment for the detailed assessment of climate change issues.

6.2.23 13(4)(w) if the application is lodged by more than 1 person, a statement of each proposed approval to be held by each of those persons

Response N/A – The application is lodged by only one applicant.

6.2.24 13(4)(x) Summary of compliance or enforcement actions (if any) taken against the applicant under a specified Act.

Response Over the 15 years of Winton's history of delivering masterplanned communities there has been one instance of subsidiary companies of Winton having enforcement action taken against them, as follows:

- In 2018, Northlake Investments Limited was prosecuted under the RMA by the Otago Regional Council. The prosecution related to sediment discharge at a site which occurred when the sediment erosion controls installed by Northlake Investment's civil contractor failed. The failure was remedied immediately by the contractor. A fine was imposed, and no further action was taken.

6.2.25 13(4)(y)(i) For an approval described in s42(4)(a) [resource consent] the information specified in clause 2 of Schedule 5.

Response N/A as clause 2 of Schedule 5 relates to referral applications. This project is a listed project in the Act and does not require a separate referral application. However, the substance of clause 2 of Schedule 5 is addressed in the Schedule 5 assessment summarised in section 6.3 below.

6.3 FT Act Schedule 5 Requirements – clauses 5-8

6.3.1 5(1)(a) Description of the proposed activity.

Response Refer to section 4 above in this report for a detailed description of the proposal and the technical documents submitted in support of this application.

6.3.2 5(1)(b)

- *Description and map of the site at which the activity is to occur;*

Response Refer to sections 2, 3 and 6.2.4 above in this report for a map of the site where the activities are to occur. This is also contained within the Masterplan in Document 3a.

- *Whether the site is within or adjacent to:*

(i) a statutory area (as defined in the relevant Treaty settlement Act);

Response Refer to section 6.2.13 above in this report regarding the Ngaati Tamaoho Claims Settlement Act 2018 and the Otūwairoa Stream statutory acknowledgement.

(ii) ngā rohe moana o ngā hapū o Ngāti Porou;

Response N/A – refer Document 6.

(iii) a protected customary rights area under the Marine and Coastal Area (Takutai Moana) Act 2011.

Response N/A – refer Document 6.

6.3.3 5(1)(c) Confirmation that the consent application complies with s46 (2)(a), (b) and (d):

a. the application complies with -

(i) s42; and

(ii) ss43 and 44;

Response s42(1)(a): This Application seeks approvals for a listed project. The Applicant is the authorised person for this listed project as detailed in Schedule 2 of the Act.

s42(2)(a): This substantive application by the relevant authorised person complies with section 43, as stated within section 6 of this report.

s42(3)(a): The applicant would be eligible to apply for the corresponding approvals sought, under the RMA.

s42(4)(a): Refer to section 5 above in this report for details of the approvals sought under this Application, which are all resource consents.

s42(5) to (13) are not applicable to this application.

s43: The Application complies with the requirements of s43, as detailed above in sections 6.1 and 6.2 of this report.

s44: This Application complies with the requirements of s44.

b. The application relates solely to a Listed Project or a Referred Project;

Response This application relates solely to a listed project.

d. Any fee, charge or levy payable under regulation in respect of the application is paid.

Response The required fee will be paid when this application is lodged.

6.3.4 5(1)(d) Full name and address of:

(i) each owner of the site and of land adjacent to the site; and

(ii) each occupier of the site and of land adjacent to the site whom the applicant is unable to identify after reasonable inquiry.

Response The full names and addresses required by clause 5(1)(d) are provided in Document 49 attached to this report regarding the subject site, and Document 47 attached to this report for land adjacent to the site.

6.3.5 5(1)(e) Description of any other activities that are part of the proposal to which the consent application relates.

Response There are no activities that are part of the proposal which are not detailed in section 4 and section 5 above in this report.

6.3.6 5(1)(f) Description of any other resource consents, notices of requirement for designations, or alterations to designations required for the project to which the consent application relates.

Response Not applicable - all the resource consents required for the project to which the consent application relates are set out in section 5 above in this report, recognising Awakeri Wetlands – Stages 2 and 3 are progressing under a separate resource consent application. No designations or alterations to designations are required for the project.

6.3.7 5(1)(g) Assessment of the activity against sections 5, 6 and 7 of the Resource Management Act 1991

Response This application achieves the purpose of the RMA as the proposal and its supporting documents confirm that this is a development project that will result in significant regional benefits (section 6.1.4). The subject report provides an analysis of the relevant actual and potential effects, and statutory provisions, with the Unitary Plan having been prepared against and being reflective of Part 2 of the RMA. In summary:

Section 5

The purpose of the RMA is to promote the sustainable management of natural and physical resources. As stated in section 5 of the Act, this means:

5(2) In this Act, sustainable management means managing the use, development and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural wellbeing and for their health and safety while –

(a) Sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and

(b) Safeguarding the life-supporting capacity of air, water, soil, and ecosystems; and

(c) Avoiding, remedying, or mitigating any adverse effects of activities on the environment.

The Sunfield proposal will promote the sustainable management of natural and physical resources recognising:

- The use of motor-vehicles within the development is restricted, as people will be able to live, work and play within their community. Public transport and open space greenways will be provided which provide connections throughout the development and provide a high-level of amenity for residents and the local population.
- Sustainable practices are proposed with the use of solar panels and an electric bus service.
- Natural waterbodies, particularly Watercourse 2 and the natural inland wetland in the south-eastern portion of the site will be retained. This will support stormwater management, and promote ecological benefits with significant planting proposed in these areas and within the wider site. Currently the site is used for animal stock with limited and low value vegetation and the freshwater environment will benefit from this proposal.
- Providing 3,854 healthy homes will provide for the social and economic well-being of residents, with a variety of housing typologies proposed.
- Adverse effects can be mitigated through land use design solutions, and construction/engineering methodologies. A detailed set of proposed conditions are also put forward to avoid, remedy, or mitigate any adverse effects of activities on the environment.

Section 6

Section 6 sets out matters of national importance relative to the protection of outstanding natural features, protection of areas of significant indigenous vegetation and habitats for indigenous fauna, lakes and rivers, the protection of historic heritage, the management of natural hazard risks, and the relationship of Maori and their culture and traditions.

In regard to Sunfield, the proposal:

- Provides a stormwater management solution which appropriately manages the flooding risk in the catchment.
- Protects the streams and natural inland wetlands within the development area, and in turn areas of indigenous flora and fauna.
- Does not protect historic heritage in the form of the building at 80 Hamlin Road, given this will be demolished (or potentially relocated). However, this building is

not scheduled under the AUP, and its demolition will lead to an efficient use of land, meaning on balance its loss is considered acceptable.

- Significant engagement with mana whenua has occurred, who are supportive of the Sunfield proposal.

Section 7

Section 7 requires particular regard by had to 'other matters', as outlined below:

(a) kaitiakitanga:
(aa) the ethic of stewardship:
(b) the efficient use and development of natural and physical resources:
(ba) the efficiency of the end use of energy:
(c) the maintenance and enhancement of amenity values:
(d) intrinsic values of ecosystems:
(e) [Repealed]
(f) maintenance and enhancement of the quality of the environment:
(g) any finite characteristics of natural and physical resources:
(h) the protection of the habitat of trout and salmon:
(i) the effects of climate change:
(j) the benefits to be derived from the use and development of renewable energy.

Of relevance to this application, are:

- The proposal will provide for the communities social, economic, and cultural wellbeing and for their health and safety through the creation of a significant number of residential dwellings, employment opportunities and an open space network which will enhance the ecological and amenity values of the area.
- Water quality will be maintained both during and post construction through sediment control methods and extensive planting.
- Sustainable practices are proposed with a proposed reduction in private vehicles, the use of solar panels and an electric bus service, which collectively will support climate change and greenhouse gas reduction.

The proposal is therefore considered to meet the purpose of the RMA, in particular Sections 5, 6 and 7.

6.3.8 5(1)(h) Assessment of the activity against any relevant provisions in any of the documents listed in subclause 5(2) below.

Response The documents listed in subclause 5(2) include national environmental standards, RMA regulations, national policy statements, the NZ coastal policy statement, regional policy statement or proposed regional policy statement, plan or proposed plan and any relevant planning document recognised by a relevant iwi authority. Assessment of these documents to the extent relevant to the proposed development has been undertaken in sections 8 and 9 below in this report.

6.3.9 5(1)(i) Information about any Treaty settlements that apply in the area covered by the consent application, including:

(i) identification of the relevant provisions in those Treaty settlements;

(ii) a summary of any redress provided by those settlements that affects natural and physical resources relevant to the project or project area.

Response (i) Refer to section 6.2.12 above in this report which addresses the Ngaati Tamaoho Claims Settlement Act 2018 and the Otūwairoa Stream statutory acknowledgement.

(ii) N/A

6.3.10 5(1)(j) List of any relevant customary marine title groups, protected customary rights groups, ngā hapū o Ngāti Porou (where an application is within, adjacent to or directly affecting ngā rohe moana o ngā hapū o Ngāti Porou), or applicants under the Marine and Coastal Area (Takutai Moana) Act 2011.

Response N/A – refer Document 6.

6.3.11 5(1)(k) Conditions that the applicant proposes for the resource consent.

Response The applicant has prepared a comprehensive set of resource consent conditions that will implement the proposal and will avoid, remedy or mitigate the effects of the proposed

development. The conditions are submitted as part of the application – refer **Attachment 2**. The proposed conditions are divided into sections including:

- General conditions applicable to all consents
- Land-use consent conditions broken down into pre-commencement conditions, conditions during physical works (demolition and construction phase), and on-going land-use conditions.
- Regional earthworks consent conditions; and
- Subdivision consent conditions.

6.3.12 5(1)(l) [Include copy notice received from Council under s30(3)(b) (no competing resource consents) and confirm that Application lodged within three months after the date of that notice]

Response Confirmation from Auckland Council (Document 46) has been provided, via correspondence dated 30 January 2025, that there are no existing resource consents associated with the same activity using the same natural resource.

6.3.13 5(2) The documents referred to in subclause 5(1)(h) above are the following:

(a) a national environmental standard;
(b) other regulations made under the Resource Management Act 1991;
(c) a national policy statement;
(d) a New Zealand coastal policy statement;
(e) a regional policy statement or proposed regional policy statement;
(f) a plan or proposed plan;
(g) a planning document recognised by a relevant iwi authority and lodged with a local authority.

Response Assessment against the documents that are relevant to the proposal has been undertaken in sections 8 and 9 below in this report.

6.3.14 5(3) An assessment under subclause 5(1)(h) above must include an assessment of the activity against:

(a) any relevant objectives, policies, or rules in a document listed in subclause 5(2) above;
(b) any requirement, condition, or permission in any rules in any of those documents;
(c) any other requirements in any of those documents.

Response The assessment of the proposal required under the provisions listed in clause 5(3) has been undertaken in sections 8 and 9 below in this report and confirm the requirements of this clause have been met.

6.3.15 5(4) Assessment of the activity's effects on the environment that:

(a) includes the information required by clause 6 below;

(b) covers the matters specified in clause 7 below.

Response The assessment of effects of the Proposal on the environment required under the provisions listed in clause 5(4) has been undertaken in section 7 below in this report. In addition, the technical assessments undertaken in the documents submitted with the application include detailed analysis of environmental effects and should be referred to as part of the analysis required by this clause. A summary of the proposed mitigation measures is also outlined in section 7.25 of this report. Overall, it is considered that the environmental effects of the proposed development can be adequately avoided, remedied or mitigated.

6.3.16 5(5)(a) If a permitted activity is part of the proposal to which the consent application relates, a description that demonstrates that the activity complies with the requirements, conditions, and permissions for the permitted activity (so that a resource consent is not required for that activity under section 87A(1) of the Resource Management Act 1991).

Response The proposed development is considered to be a non-complying activity overall. Given the comprehensive and integrated approach of the Sunfield Masterplan and the overlapping nature of the effects of the application, permitted activities do not form part of the proposal and there is no reliance placed on any permitted activities.

6.3.17 5(5)(b) If the activity is to occur in an area that is within the scope of a planning document prepared by a customary marine title group under section 85 of the Marine and Coastal Area (Takutai Moana) Act 2011 or the environmental covenant prepared by ngā hapū o Ngāti Porou under section 19 of the Ngā Rohe Moana o Ngā Hapū o Ngāti Porou Act 2019, an assessment of the activity against any resource management matters set out in that document.

Response Not applicable – refer Document 6.

6.3.18 5(5)(c) If the activity is to occur in an area that is taiāpure-local fishery, a mātaitai reserve, or an area that is subject to bylaws made under Part 9 of the Fisheries Act 1996, an assessment of the effects of the activity.

Response Not applicable – refer Document 6.

6.3.19 5(6) If the applicant is not able to supply the name and address of the owner and each occupier of the site and of land adjacent to the site because the land is Māori land in multiple ownership, the applicant must include a statement to that effect.

Response Not applicable – refer Document 6.

6.4. Information required to assess environmental effects

6.4.1 6(1)(a) Assessment of the actual or potential effects on the environment.

Response A detailed assessment of the actual and potential effects on the environment resulting from the proposed development has been undertaken in section 7 below in this report. In addition, the technical assessments undertaken in the documents submitted with the application include detailed analyses of environmental effects and should be referred to as part of the consideration of this clause. Overall, it is considered that the environmental effects of the proposed development can be adequately avoided, remedied or mitigated.

6.4.2 6(1)(b) If the activity includes the use of hazardous installations, an assessment of any risks to the environment that are likely to arise from such use.

Response N/A as no hazardous installations are proposed.

6.4.3 6(1)(c) If the activity includes the discharge of any contaminant, a description of:

(i) the nature of the discharge and the sensitivity of the receiving environment to adverse effects; and

(ii) any possible alternative methods of discharge, including discharge into any other receiving environment

Response The proposal involves disturbance of potentially contaminated land. Focus Environmental have assessed this (refer Document 32) and the proposed conditions of consent will ensure that any potential adverse effects are able to be avoided, remedied or mitigated.

6.4.4 6(1)(d) Description of the mitigation measures (including safeguards and contingency plans where relevant) to be undertaken to help prevent or reduce the actual or potential effect of the activity.

Response The application includes a comprehensive suite of mitigation measures to prevent or reduce the actual or potential effects of the proposed development. These include the following:

- Geotechnical ground strengthening, liquefaction and settlement monitoring to ensure land stability to accommodate the buildings and structures proposed as part of the development.
- Settlement monitoring and contingency plans for groundwater diversion.
- Contaminated land remediation action plans and soil management plans.
- Earthworks and sediment control plans.
- Construction noise and vibration management plans.
- Stormwater management plans.
- Measures to mitigate potential ecological effects.
- Traffic and transport mitigation measures (including construction traffic).
- Construction management plans.

- Proposed conditions of consent.

These measures, which are detailed in the comprehensive suite of technical assessment documents lodged with the application, plus the proposed consent conditions (**Attachment 2**) will ensure that any actual and potential adverse effects of the development are prevented or reduced. A summary of the proposed mitigation measures is also outlined in section 7.25 of this report.

6.4.5 6(1)(e) Identification of persons who may be affected by the activity and any response to the views of any persons consulted, including the views of iwi or hapū that have been consulted in relation to the proposal.

Response Consultation has occurred with various parties, as outlined in section 11 of this report. This has included parties who the applicant considers may be potentially affected by Sunfield, which includes Ardmore Airport Limited given potential reverse sensitivity issues, and First Gas Limited given the gas line running through Sunfield. For the reasons outlined in section 7 of this report, it is considered these adverse effects can be appropriately mitigated.

The applicant has also engaged with the various asset owners being Auckland Council, Auckland Transport, Watercare and Veolia, recognising the intent for these assets to be vested.

With regard to the views of iwi or hapu, engagement with the six iwi authorities that have a relationship with the area has been undertaken since March 2021. The outcomes of the engagement process are set out in Document 5 of the application – Sunfield Mana Whenua Engagement Report.

6.4.6 6(1)(f) If iwi or hapū elect not to respond when consulted on the proposal, any reasons that they have specified for that decision.

Response Refer to the Sunfield Mana Whenua/Māori Engagement Report (Document 5) which details the following:

Ngāti Paoa is one of the six Iwi Authorities who expressed an interest in the project. At their first engagement, the CEO noted due to capacity issues within their organisation they are unable to be engage deeply on the project, however would:

- welcome being kept apprised of the project as it goes through the planning processes including if a change to the planning strategy occurs,
- advise the assessor of the application of this capacity challenge within the Iwi but support the submission of the application and that the applicant is keeping the Iwi apprised, and
- request that, when the resource consent is achieved, the applicant via Navigator Limited is to re-engage with the Ngāti Paoa regarding activation of the conditions and provisions.

Ngai Tai ki Tamaki advised that they could not actively engage on Sunfield, however would like to be:

- apprised of the planning strategy and any change in the planning strategy, and
- informed when the resource condition is granted and the consent holder is seeking to activate the conditions and provisions.

As detailed within the Sunfield Mana Whenua / Māori Engagement Report, Sunfield Developments Limited has to date adhered, and will continue to adhere, to the requests of Ngāti Paoa and Ngai Tai ki Tamaki.

6.4.7 6(1)(g) If the scale and significance of the activity's effects are such that monitoring is required, a description of how the effects will be monitored and by whom, if the activity is approved.

Response The application will require ongoing monitoring throughout the development stages. The proposed conditions of consent detail the monitoring requirements that will be undertaken by Auckland Council compliance and monitoring officers. This currently occurs for development projects across Auckland and will be undertaken for this project in a similar manner.

6.4.8 6(1)(h) Assessment of any effects of the activity on the exercise of a protected customary right.

Response Not applicable to this application – refer Document 6.

6.5 Matters to be covered in assessment of environmental effects

6.5.1 7(a) Any effect on the people in the neighbourhood and, if relevant, the wider community, including any social, economic, or cultural effects.

Response Refer to assessment undertaken in sections 7.1, 7.2, 7.3, 7.8, and 7.9 below in this report and the associated relevant technical assessments submitted with this application. Whilst these sections and technical documents provide the relevant detail of the effects on people in the neighbourhood, section 7.26 provides a summary and overview.

6.5.2 7(b) Any physical effect on the locality, including landscape and visual effects.

Response Refer to assessment undertaken in sections 7.1, 7.2 and 7.12 below in this report and the associated relevant technical assessments submitted with this application.

6.5.3 7(c) Any effect on ecosystems, including effects on plants or animals and physical disturbance of habitats in the vicinity.

Response Refer to assessment undertaken in sections 7.4, and 7.11 below in this report and the associated relevant technical assessments submitted with this application.

6.5.4 7(d) Any effect on natural and physical resources that have aesthetic, recreational, scientific, historical, spiritual, or cultural value, or other special value, for present or future generations.

Response Refer to assessment undertaken in sections 7.2, 7.9, 7.10, 7.11, 7.12 and 7.20 below in this report and the associated relevant technical assessments submitted with this application.

6.5.5 7(e) Any discharge of contaminants into the environment and options for the treatment and disposal of contaminants.

Response Refer to assessment undertaken in sections 7.19 and 7.4 below in this report and the associated relevant technical assessments submitted with this application.

6.5.6 7(f) Any unreasonable emission of noise.

Response The proposal will not give rise to any unreasonable noise emission given the largely residential nature of the development and all activities on site having to comply with the proposed conditions which include compliance with the relevant noise standards, particularly during the construction period. Construction activities will be staged, with the site being large allowing effects to be internalised and management plans being adaptable.

6.5.7 7(g) Any risk to the neighbourhood, the wider community, or the environment through natural hazards or hazardous installations.

Response Refer to assessment undertaken in sections 7.4 and 7.19 below in this report and the associated relevant technical assessments submitted with this application.

6.6 Information required in applications for subdivision consent

6.6.1 8(1)(a) The position of all new boundaries.

Response This information is contained within the Scheme Plan (Document 11).

6.6.2 8(1)(b) The areas of all new allotments, unless the subdivision involves a cross lease, company lease, or unit plan.

Response This information is contained within the Scheme Plan (Document 11).

6.6.3 8(1)(c) The locations and areas of new reserves to be created, including any esplanade reserves and esplanade strips.

Response This information is contained within the Scheme Plan (Document 11), noting there are no esplanade reserves or esplanade strips proposed.

6.6.4 8(1)(d) The locations and areas of existing esplanade reserves, esplanade strips, and access strips.

Response There are no existing esplanade reserves, esplanade strips of access strips affected by the proposal, with the current Records of Title contained within Document 49.

6.6.5 8(1)(e) The locations and areas of any part of the bed of a river or lake to be vested in a territorial authority under section 237A of the Resource Management Act 1991.

Response Not applicable to this application as no bed of a river or lake in the application site.

6.6.6 8(1)(f) The locations and areas of any land within the coastal marine area that is to become part of the common marine and coastal area under section 237A of the Resource Management Act 1991.

Response Not applicable to this application as there is no land within the coastal marine area within the application site.

6.6.7 8(1)(g) The locations and areas of land to be set aside as new roads.

Response This information is contained within the Scheme Plan (Document 11).

7 ASSESSMENT OF EFFECTS

The below assessment of effects is provided in accordance with clauses 6 and 7 of Schedule 5 of the Act. It outlines the positive and negative actual and potential effects arising from the proposal, proposed mitigation measures and effects on people in the neighbourhood.

7.1 Effects Associated with Urban Growth

The appropriate location for urban growth has a range of factors and considerations, many of which are addressed further in this report. Whilst there are different approaches and philosophies to urban growth, a common pattern for greenfield growth is 'continuous growth'. In simple terms, this is expanding directly out from a nucleus or urban area, as opposed to creating a new urban area with a gap or space between an existing urban area. These gaps can often be left, or 'backfilled'. Both can be used with equal success depending on the particular urban development circumstances and location.

In this instance, the continuous growth model is supported, with the land being a logical greenfield area to develop. Sunfield is the next block to the east of the existing urban areas of Takanini and Papakura, and north of the urban area adjacent to Old Wairoa Road. This area of appropriate urban growth is then bordered to the west by Ardmore Airport, and to a lesser extent Hamlin Road/Airfield Road in the north, which creates a logical expansion for growth adjacent to a significant existing edge of urban land. This is highlighted by **Figure 22** below.

Continuous urban growth in this location is considered to be appropriate as:

a) It will create better linkages and connections to the existing urban area given the close proximity to the rail network, creating efficiencies for the movement of people and infrastructure provision, and in turn reducing greenhouse gas emissions through less vehicle kilometres travelled.
b) It does not fragment rural land, which would create inefficiencies for rural production.
c) It will provide better access to different land-uses within the existing urban area including employment, open spaces, retail/cafes and education in areas such as Papakura, Takanini and Manukau Metropolitan Centre.

The consequences and flow on effect of Sunfield will be a potential change to the Rural Urban Boundary (**RUB**), a planning tool used within the Unitary Plan to identify land potentially suitable for urban development. If the subject application is approved, the location of the RUB will need further consideration, noting Chapter G1 – Rural Urban Boundary of the AUP states *'The only method for relocating the Rural Urban*

Boundary is by way of a plan change pursuant to Schedule 1 of the Resource Management Act 1991.' The approval of this application is not dependent on the location of the RUB, with the proposal needing to be assessed against the statutory requirements of the Act.

Figure 22: Location of Sunfield within the urban environment *(Source: Winton)*

There are other factors to consider when determining the appropriateness of this area being considered for urban growth which are detailed below within this section, primarily:

- Sunfield will have its own Town Centre and Local Centres, which will complement existing centres as it is located approximately 2.5kms from the Papakura Town Centre zone and 9kms from Manukau Metropolitan Centre zone.

- The area is well serviced by public transport with the rail stations being approximately 2-2.5km away at Papakura and Takanini.

- There is high demand for housing within the South Auckland catchment.

- When looked at in detail, the subject land is not considered to be high value productive rural land, and is therefore appropriate for urbanisation.

- Utilising the location of Ardmore Airport to support adjacent industry and employment opportunities to create a 'hub'.

7.2 Urban Design, Amenity and Character

The Masterplan prepared by Studio Pacific (Document 3a) with an associated Urban Design Assessment (Document 4), provide a detailed analysis of the design approach and philosophy of Sunfield. The urban design outcomes are also heavily linked to the 'Sunfield Design Principles', outlined in section 3 of this report. The key features of the proposal are summarised below:

- The Sunfield Loop which is a distinctive wayfinding and placemaking feature prioritises active and shared transport modes to ensure easy access through the site and enable the 15 minute walkable neighbourhoods.

- Community Transport through the Sunbus autonomous electric vehicle shuttle fleet which accommodates the needs and facilitates the trips of its residents with continuous operation. The vehicles will travel around the Sunfield loop, transporting people to and from their homes, places of work, education, recreation and other amenities within the development. These autonomous vehicles will also provide fast and efficient transport to Papakura Train Station and town centre in the first stage, and to Takanini Train Station and town centre in later stages.

- The Town Centre is located at the crossroads of the Sunfield Loop Road and Hamlin Road, which gives the centre prominence and good accessibility. This creates a focal point for the development and ensures people are attracted to the area.

- Ensures connectivity, with cycling and walking being practical journey methods throughout the development. Amenities, education and recreation are distributed throughout the development to ensure they are easily accessible for residents. A dedicated two-way cycle/micromobility lane is given the same priority as vehicles on the Sunfield Loop and provides easy access throughout the site.

- Private vehicle ownership will be restricted to a ratio of 1 car per 10 housing units. Visitor parking will be provided at the same ratio. Parking for both residents and visitors will be provided at the Neighbourhood Service Hubs.

- Prioritising clean and affordable energy, the energy requirements of Sunfield will mostly be filled with onsite solar power and energy storage solutions throughout the community.

- Local Hubs will be distributed evenly throughout Sunfield which will provide amenities the community need on a daily basis as well as being social spaces that foster community and interaction for the residents. The hubs are centrally located, accessed easily by community transport or vehicles from the loop road or by foot or bicycle from home.

- The open space strategy comprises a series of networks that when layered together carry out important environmental functions, whilst creating a varied mix of outdoor environments that will meet the diverse needs of the community – including increased connection to nature and access to both informal and formal recreation and sports.

- Neighbourhood Service Hubs will be provided which will remove cars and enable a highly permeable neighbourhood, where compact housing and neighbourhood spaces are connected through safe, walkable lanes, which are pleasant to be in, as illustrated by Figure 23 below. A 2m building setback from the laneway creates a blurred line between public and private space. Occupiable spaces are envisaged at the front of properties for bike storage, outdoor living, and activity. This setback promotes an active lane that is a comfortable space for residents while balancing privacy needs within the home. It also increases the minimum building to building dimension to 8.4m.

- The design intent is to locate service hubs within easy walking distance of every house. They would contain:
    - Refuse and recycling
    - Cycle and micromobility storage and charging
    - Loading bays for service vehicles and pick up and drop off services
    - Post and courier boxes

Figure 23: Pedestrian Lanes *(Source: Masterplan prepared by Studio Pacific)*

The following commentary is provided in relation to the respective precincts within the development.

7.2.1 Residential Precinct

The residential precinct plans (Document 3d) illustrate the 15 neighbourhoods across the residential precinct, and the design controls (Document 3k) outline the design requirements for buildings and landscaping on residential lots, and how these are to integrate with connecting roads/laneways and minor service hubs. Key points of note are:

- The residential neighbourhoods are located in the western portion of Sunfield, which provides an appropriate transition from the residential suburbs further west.

- The neighbourhoods will be pedestrian friendly, with limited vehicle movements within the landscaped laneways, given restrained parking provision within each individual site.

- The laneways are designed to allow for pedestrian priority, with landscaping, paving materiality and gathering areas emphasising the human scale. The laneways are 6 metres wide, with a minimum width of 8.4m between buildings.

- The residential design controls will ensure that new dwellings have minimal privacy, streetscape, shadowing, and dominance effects given appropriate heights, setbacks and bulk controls will be adhered to, with the requirement to comply with the design controls proposed as a condition of consent.

- Given geotechnical conditions, dwellings will be limited to two-storeys, ensuring that dominance and shadowing effects are minimised.

- The entrance ways to the dwellings are setback from the laneways with overhangs and canopies to ensure a welcoming environment. Glazing and balconies on the upper levels, overlooking the laneways, provide for passive surveillance opportunities and adhering to CPTED design principles.

- Neighbourhood Service Hubs within each neighbourhood will provide spaces for visitor parking, shared parking, cycle storage, rubbish collection, pick up zones, and post and courier services, to ensure an efficient use of land by co-location.

The urban design report prepared by Studio Pacific (Document 4) states:

'The character of the residential neighbourhoods from the macro to the micro aspects have been carefully considered and crafted together. Designing homes without car parking is a fundamental shift from the norm, functionally and aesthetically. The laneways and streetscapes are, as a result therefore radically different in character being more pedestrian orientated and walkable.'[2]

The residential precinct will provide an appropriate level of amenity for residents within the development, and the proposed conditions of consent, along with the Residential Design Controls, will ensure that the design outcomes align with the overall vision and intent of the Masterplan and Residential Precinct Plans.

[2] Urban Design Assessment dated 11 February 2025, Document 4, Section 7.6.11, Page 29

7.2.2 Local Hubs

The Design Controls and Design Guide for the Local Hubs (Document 3o) provide details on the design and layout of the 4 Local Hubs within Sunfield, with each hub having a consistent design strategy. Key matters of note are:

- The Local Hubs are within close proximity to the residential neighbourhoods.
- The apartments and commercial tenancy (café/retail) will provide activation of these areas, along with passive surveillance opportunities noting the adjacent at grade parking areas.
- The Local Hubs are situated on Sunfield Loop Road or collector roads allowing for vehicle access and proximity to bus stops.
- The Local Hubs will provide communal services such as storage (click and collect lockers), waste facilities, bicycle parking and pick-up/drop off areas to supporting the 'car-less' environment.
- The two level buildings will be of an appropriate scale reducing potential dominance, privacy and shading effects.
- The different apartment sizes will allow for different price points and living styles.

The urban design report prepared by Studio Pacific (Document 4) states:

'The character of the Local Hubs reflects their important shared communal use. The car-less walkable environment is dependent upon and predicated on adequate support services that are convenient and situated within easy walking and cycling distances. They are as such located on primary transport corridors and located on highly visible corners.'[3]

The Local Hubs are therefore considered to be an appropriate design for a communal space, with the detailed design being provided through the proposed conditions of consent.

[3] Urban Design Assessment dated 11 February 2025, Document 4, Section 7.7.6, Page 30

7.2.3 Town Centre Precinct

The Town Centre Precinct plans (Document 3f) and the Town Centre Precinct Design Controls (Document 3m) outline the proposed layout and detailed requirements for the built form and appearance of the mixed-use commercial areas. Key points of note are:

- The town centre is located at the crossroads of Sunfield Loop Road and Hamlin Road, which gives the centre prominence and good accessibility. This creates a focal point for the development and ensures people are attracted to the area.

- Vehicle access into and out of the town centre is restricted, with the number of car-parking spaces provided for a centre of this size being significantly reduced. Traffic calming measures are also proposed. This will enable the 'car-less' design principle and encourage a pedestrian orientated development.

- Pedestrian connections are provided throughout the town centre with multiple route options. The size of buildings, being two to three levels with a maximum height of 9m, will add to the human scale of the centre and reduce dominance effects.

- The main streets will provide a welcoming environment for pedestrians with planting, façade articulation and passive surveillance opportunities. Pedestrians will get priority.

- A landscaped courtyard area with a playground is located at the western end of a main street, which opens out to the Central Stormwater Park. This will create a significant gathering space which with give the town centre a sense of place and identity.

- Buildings will address Hamlin Road in the north and the corner of Hamlin Road and Sunfield Loop Road, creating activation, passive surveillance opportunities and an appropriate streetscape.

- A variety of activities will be located within the town centre, creating diversity and activation. The large format retail activities will create anchors and help attract people to the area.

- Substantial landscaping is proposed throughout the precinct which will soften the appearance of buildings and provide shading in summer months.

- The centre integrates well with the sports and recreation areas, aquatic / sports facility and medical centre. All of these activities open out onto the Central Stormwater Park, with pedestrian connections to the north and the town centre provided.

The urban design report prepared by Studio Pacific (Document 4) states:

'The Town Centre follows good practice centre urban design in terms of planning with an emphasis on less car parking and access to the Sunfield Loop, public transport and the open space network. The Town Centre Design Controls are detailed and comprehensive.'[4]

The Town Centre Precinct will provide an appropriate level of amenity for residents within the development and the South Auckland area. The proposed conditions of consent, along with the Town Centre Design Controls, will ensure that the design outcomes align with the overall vision and intent of the Town Centre Concept Masterplan.

7.2.4 Recreational Precinct – Open Space and Connections

There is approximately 25.6ha of open space within the Sunfield proposal. This equates to approximately 80m^2 per household. This is made up of a variety of spaces which provide a range of functions and purposes, including:

- An interconnected green network throughout Sunfield, providing access to the different precincts via active modes of transport, with a variety of different path and boardwalk typologies, including wayfinding signage.

- Ensuring stormwater is managed effectively and efficiently, to create a resilient and sustainable neighbourhood.

- Varied habitats which have high ecological values to create an extensive biodiversity corridor, with extensive riparian and wetland planting proposed.

- Informal active recreation spaces, including playgrounds, basketball courts, picnic areas, outdoor gyms, event spaces and 'kick about' areas.

[4] Urban Design Assessment dated 11 February 2025, Document 4, Section 7.8.10, Page 32

- Sunfield Park which will provide a community hub with the provision of organised sport and active recreation.

The urban design report prepared by Studio Pacific (Document 4) states:

'There is a high degree of diversity in terms of the scale and character of the open spaces. Each of the parks and greenway networks are defined by their ecological and stormwater function and by their specific location within the masterplan. The plans and the planting schedules are detailed and, in my view, can be realized from the information supplied.'[5]

The quantity and quality of the proposed open space network is appropriate with a variety of different spaces, for different purposes, being proposed to cater for all demographics. Proposed conditions have also been put forward requiring detailed landscape plans to be provided prior to the commencement of works, to ensure that the detailed design is consistent with the intent and information contained within the subject application.

7.2.5 Employment Precinct

The Employment Precinct plans (Document 3e) illustrate the layout of the industrial activities and buildings with the design controls (Document 3l) outlining the design requirements for buildings and landscaping on the lots, and how these are to integrate with connecting roads/laneways and adjoining land-uses. Key points of note are:

- The industrial activities are located in the north-western portion of Sunfield, providing an appropriate transition to the rural activities to the north and west, as well as Ardmore Airport.

- Access to the Employment Precinct will predominantly from Airfield Road, away from residential properties which will help reduce amenity effects associated with larger loading trucks and vehicles.

- Smaller lots and buildings are located adjacent to the Town Centre to the south-east. This will allow for light industrial activities, which adds diversity and will be more compatible with the Town Centre interface.

[5] Urban Design Assessment dated 11 February 2025, Document 4, Section 7.9.7, Page 34

- The proposed open space network and landscaped setbacks will provide an appropriate buffer from immediately adjacent neighbours, including the Residential Precinct to the west beyond the internal road network.

- The road and greenway network provides appropriate north to south, and east to west connections and, combined with the building setbacks from roads and laneways, creates a positive pedestrian experience which will not dominate the streetscape environment.

Proposed conditions have been put forward to ensure that the detailed design for each building, particularly the elevations and façade components, are provided prior to the issue of building consent. This will ensure that amenity, character and urban design considerations are fully assessed and analysed prior to construction.

7.2.6 School Precinct

The school precinct is located in the north-western portion of the site, as illustrated within the School Precinct Concept Masterplan (Document 3j), adjacent to Mill Road and Hamlin Road. The main points of note are that:

- The site is located at the crossroads of Mill Road and Hamlin Road, being an identifiable junction aiding visibility and accessibility.

- The school is in the western part of the site, adjoining the residential precincts within Sunfield and the neighbouring existing residential areas to the west.

- The 'front' of the site on Hamlin Road provides an appropriate setback of buildings, with an associated pedestrian and vehicular pick up and drop off point. Pedestrian access opportunities on the eastern boundary, joining up with residential neighbourhood 11, are also provided creating a visual and physical connection.

- Significant building setbacks are proposed to ensure that dominance effects on neighbouring properties are reduced, with proposed landscaping also softening the appearance of buildings and creating a buffer around the perimeter of the site.

- A centrally located courtyard and play area is proposed to create a focal point for the school, particularly for school children during play time, which will provide a safe and secure environment.

7.2.7 Aged Care Precinct

The Aged Care Precinct has three retirement areas being Lilyburn, Brookside and Homehill. Each are designed using a similar philosophy, with an internal loop road, adjoining parks and a local hub, with pedestrian connection to these adjacent features. The building formats are similar with amenity buildings (reception, gyms and cafes etc…) and three residential typologies (x3 bedroom duplexes, x3 bedroom detached and x1-2 bedroom townhouses).

The Aged Care Precinct Concept Masterplan (Documents 3g, 3h and 3i) and Design Controls (Document 3n) outline the design detailing and requirements for the retirement villages. The main points of note are that:

- Large outdoor spaces are located in close proximity to each of the retirement villages, providing for passive recreation opportunities, with each unit having a small private open space area for on-site amenity.

- The housing typology range will cater for different price points and living needs, and are of a scale which will minimise shading, dominance and privacy effects.

- Amenity buildings will provide for the well-being of residents, with social areas including cafés and a games room, as well as a gymnasium and pool providing health benefits.

- The Aged Care centres will be walkable with pedestrian connection within each site and linkages to adjacent activities such as the nearby parks and Local Hub.

- Landscaping, both hard and soft, will contribute to the character of the area, and ensure a level of on-site amenity and pleasantness for residents.

As with other precincts, the proposed conditions will ensure that the detailed design of the Aged Care Precincts are reviewed and deemed appropriate.

7.2.8 Summary

Overall, it is considered that the design philosophy and envisaged urban design outcomes will create a sustainable and 'liveable' community which will be a pleasant environment to live, work and play. The proposed conditions will ensure that any effects associated with urban design, amenity and character will be to an acceptable level and internal to the Sunfield development proposal, with the proposed application

demonstrating that the proposal fits into its surrounding context and is designed with a strong urban design framework.

7.3 Economic Impact

An Economics Assessment prepared by Property Economics has been undertaken (Document 16).

The report is broken down into key areas with the following assessments made by Property Economics.

Residential Market Assessment

'Average annual growth for these catchments (South Auckland) over the 31-year period for the medium projection equates to around 6,690 people and nearly 2,460 dwellings net, while under the high scenario average annual growth equates to around 11,510 people and nearly 3,570 dwellings net.'[6]

'Given the above projections, it can be expected that growth is projected to be strong and sustained within the catchments over the short, medium and long-term. Of the three assessed catchment, Papakura / Manurewa (the local market the Subject site forms part of) growth is still tracking closer to the High scenario with demand remaining strong. This gives confidence that the Subject site is in an area sought by the market and an area that would deliver increasing amenity and efficiency for purchasers.'[7]

'Using these figures as the basis, the recommended removal of 330ha (gross) of FUZ land in Drury East / Slippery Creek would lead to the loss of expected residential capacity in the order of 5,100 dwellings16. Consequently, the total residential capacity loss within the South Auckland FUZ areas due to the FDS removals would be around 7,500 dwellings.'[8]

Therefore, it is considered that Sunfield with the proposed 3,864 healthy homes, consisting of individual homes and 3 retirement villages, would support the delivery of the region's growth strategy and will mitigate the likely fluctuations in the local market created by the removal of ear-marked land from the FDS.

Commercial Centre Development Potential

[6] Property Economics Report dated December 2024, Document 16, Section 4.2, Page 21
[7] Property Economics Report dated December 2024, Document 16, Section 4.2, Page 23
[8] Property Economics Report dated December 2024, Document 16, Section 5.1, Page 31

'Property Economics has assessed the retail land requirement for the proposed main Sunfield Commercial Centre's core catchment, encompassing the full delivery and occupancy of 4,000 new homes within the development.

Considering the projected growth in retail spending and sustainable GFA over the upcoming two decades, the sustainable additional retail land provision within the core catchment is estimated to be approximately 15.7ha.

This 15.7ha is well above the proposed retail provision proposed within the Sunfield development. With Sunfield being the primary and central location for future growth in the area, the development of a main commercial centre servicing the growth in the market in Sunfield represents an efficient outcome. As such, in Property Economics' view, the proposed Sunfield Commercial Centre is sustainable and appropriate to accommodate a portion of the expected market growth over the next 25 years.'[9]

It is therefore considered that the cumulative area commercial centres is sustainable and will not have an adverse economic impact on the wider area.

Employment Land Demand

'Property Economics would recommend consideration, based on the population scenario and the need to adequately provide for a growing industrial market in the Southern Auckland catchment, that up to 150ha of employment land, with an emphasis on light industrial activities, would be sustainable for Sunfield once fully developed. This would enable a range of activity types including higher tech industries and some office activities which may locate to efficiently service the local community and provide local employment opportunities, without compromising the wider industrial / business land provision.'[10]

Sunfield is proposing approximately 57ha of employment land, which will provide jobs and employment for the local community, which will not compromise the wider industrial land provision.

[9] Property Economics Report dated December 2024, Document 16, Section 6.8, Page 46
[10] Property Economics Report dated December 2024, Document 16, Section 7.6, Page 62

Medical Facility Development Potential

'The analysis of this section has shown that the local urban population (Manurewa Papakura Ward) has a demographic profile that on a comparative basis has a lower socio-economic composition than the balance of Auckland. This market has a higher proportion of Māori and Pacific peoples that traditionally in NZ have a higher risk to many health-related conditions and issues and a greater need for access to medical facilities and practitioners.

Despite this, there appears to be an under-supply of medical services in the area relative to other urban areas of Auckland on a per capita basis. The research indicates additional medical facilities and services are required to assist these communities and better meet their medical requirements and improve access.'[11]

Given the sustained high level of growth projected for South Auckland, the healthcare offering within Sunfield will be an important addition to the development recognising that the current shortfall of medical facilities is likely to become more pronounced in the future.

Economic Impact Analysis

Sunfield will have a significant positive economic impact on Auckland.

'In terms of the nominal expenditure from Sunfield, it is expected that over the life of the development there would be in the order of a $4.68b capital expenditure into the Sunfield development.'[12]

'It is estimated that the proposed mix of activities at the subject site would provide a total of circa 10,940 employees. This projected level of employment generation is considered beneficial to ensure there is a meaningful increase in employment internalisation within the localised area. That is, more local employment opportunities for local Sunfield residents and as a result improved market efficiency.'[13]

Economic Costs and Benefits

The Property Economics report outlines a number of potential economic benefits resulting from Sunfield[14], namely:

[11] Property Economics Report dated December 2024, Document 16, Section 8.6, Page 67
[12] Property Economics Report dated December 2024, Document 16, Section 9.2, Page 73
[13] Property Economics Report dated December 2024, Document 16, Section 9.4, Page 75
[14] Property Economics Report dated December 2024, Document 16, Section 11.1, Page 86

- *Increased residential capacity and a greater range of housing typologies.*
- *More affordable housing.*
- *Increased choice of living location.*
- *Decreased marginal infrastructure costs.*
- *Increased economic activity and local employment.*
- *High value residential area.*
- *A diverse buyer pool*
- *Greater Level of growth in South Auckland.*
- *Increased amenities.*

Likewise, the Property Economics report also outlines potential economic costs, which relates to the loss of rural productive land:

'The strategic location of the Subject site mitigates the potential economic impact, making it not a significant cost. Significantly, when evaluating other feasible and efficient options within the same locality and market, it becomes evident that the Subject site emerges as the most suitable greenfield choice for accommodating additional residential supply.'[15]

As well as the cost of infrastructure:

'Although being directly adjacent to the Auckland urban boundary means the extent of required infrastructure upgrades is likely to be limited, the cost of any upgrades to the wider network will need to be serviced by the Council. These capital costs are likely to be mitigated, at least in part, through either developer contributions or the level at which the developer provides the infrastructure itself.'[16]

When balancing the economic costs and benefits, Property Economics states:

'In Property Economics' view, balancing all the economic considerations, the proposed development would generate significantly more economic benefits for the local and regional economy and communities than economic costs. As such, Property Economics supports the proposed development from an economic perspective in the context of the RMA.'[17]

[15] Property Economics Report dated December 2024, Document 16, Section 11.2, Page 88
[16] Property Economics Report dated December 2024, Document 16, Section 11.2, Page 88
[17] Property Economics Report dated December 2024, Document 16, Section 11.3, Page 89

Impact of a 'Car-less' Environment

A separate standalone report from Property Economics (Document 17) has assessed the potential benefits associated with a 'car-less' environment at Sunfield. The report concludes:

'The geospatial overview of car ownership highlighted that although employment opportunities, public transport access and local amenities are determinates in where these carless households reside, they do not in and of themselves motivate most households to forego car ownership altogether. This is particularly evident in the CBD in which 46% of households have access to at least one motor vehicle. Although the Sunfield proposal has some unique elements, the propensity for households to go carless directly as a result of these innovations is difficult to estimate at the outset.

For those who do choose to go carless, the average household is expected to save approximately $6,800 per annum. This is equivalent to increasing their annual pre-tax household income by roughly $10,000 and could make the difference between being able to afford a home or not for roughly 3,300 of the households currently living within the catchment.

What is not included in this estimate however is the potential savings on the property price itself. The removal of car parking will presumably make each unit cheaper to build and therefore relatively more affordable for first-home buyers. This price differential is entirely dependent on the costs incurred by the developer and no attempt has been made to incorporate this into this analysis.'[18]

Therefore, given Sunfield will provide appropriate alternative transport options to the private vehicle, and services and employment on a resident's doorstep, the 'car-less' environment can potentially contribute to household savings.

Economic Impact Summary

Sunfield will have a significant positive economic impact on Auckland, particularly South Auckland. The land-use activities within the proposal are of an appropriate scale and mix to ensure these economic impacts are realised.

[18] Embracing a Car-Free Future – Benefits For Sunfield Residents Report (Property Economics), Document 17, Section 4, Page 13

7.4 Flooding and Stormwater

A number of reports and assessments are provided with the application regarding flooding and stormwater management which include a Three Waters Strategy Report which includes a Stormwater Modelling Report (Document 7), a Stormwater Management Plan (Document 9), an Infrastructure Report (Document 8) and a prepared by Maven. The stormwater reports have been independently peer reviewed by McKenzie & Co (and this report accompanies this application – Document 15). Tonkin + Taylor have also completed an independent peer review of the stormwater modelling undertaken by Maven Associates (and this report accompanies this application – Document 13) and CKL have undertaken a proof of concept review of the Stormwater Management Plan (Document 14). In summary, these reports confirm that flood issues can be adequately mitigated.

The subject site is located within two stormwater catchments, as illustrated by **Figure 24** below. The northern portion of the site, with an area of 188.0 ha, is located within the Papakura Stream catchment and the southern portion, with an area of 56.5 ha, within Pahurehure Inlet Catchment. Both catchments discharge into the Manukau Harbour.

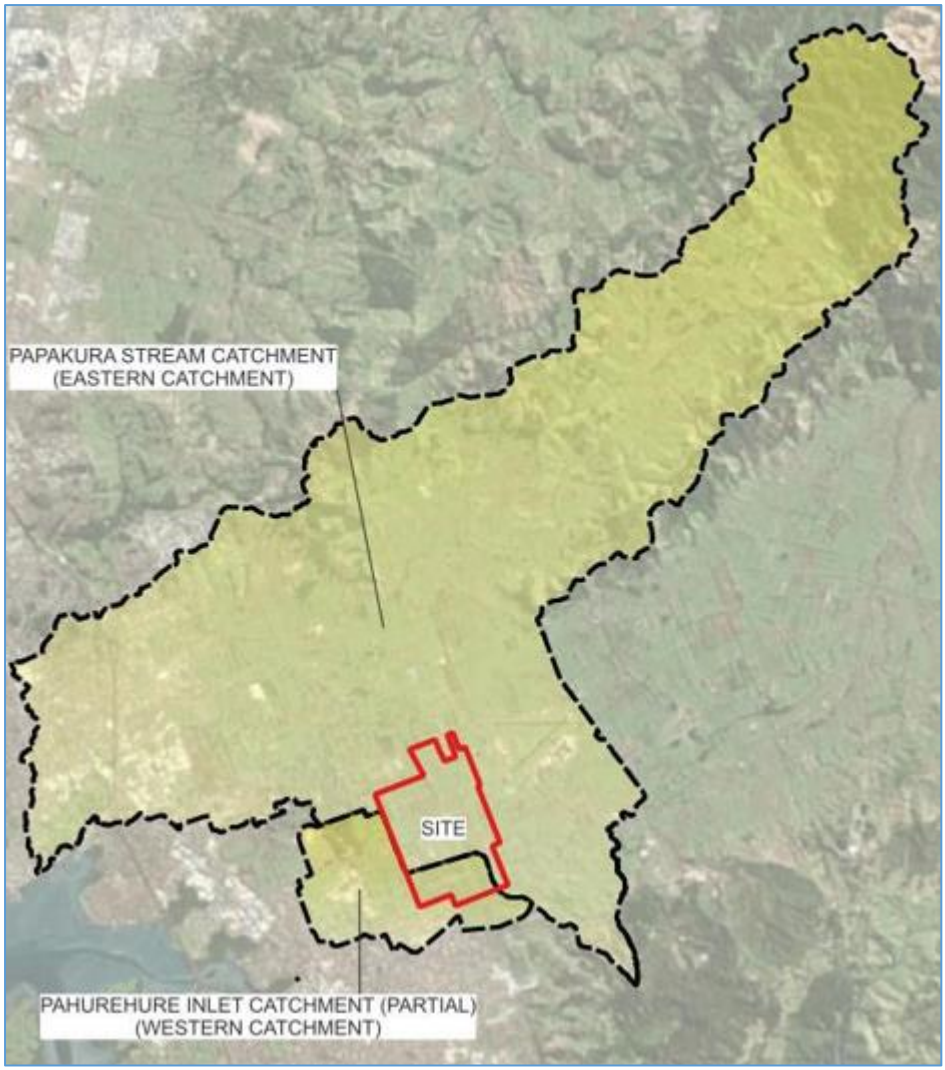

Figure 24: Stormwater Catchments *(Source: Stormwater Modelling Report prepared by Maven)*

For stormwater analysis purposes and addressing future stormwater management for Sunfield, the Maven reports have divided the development area and upstream stormwater catchments into four main catchments – Catchments A, B, C and D. Catchment A is identified as the exsiting Western Catchment (Pahurehure Inlet Catchment) and Catchments B, C and D are identified as the existing Eastern Catchment (Papakura Stream Catchment). These catchments are outlined in section 3.3.1 of the Three Waters Strategy Report (Document 7), however, to summarise, Figures 25 and 26 illustrated below have been extracted from the Three Waters Strategy Report.

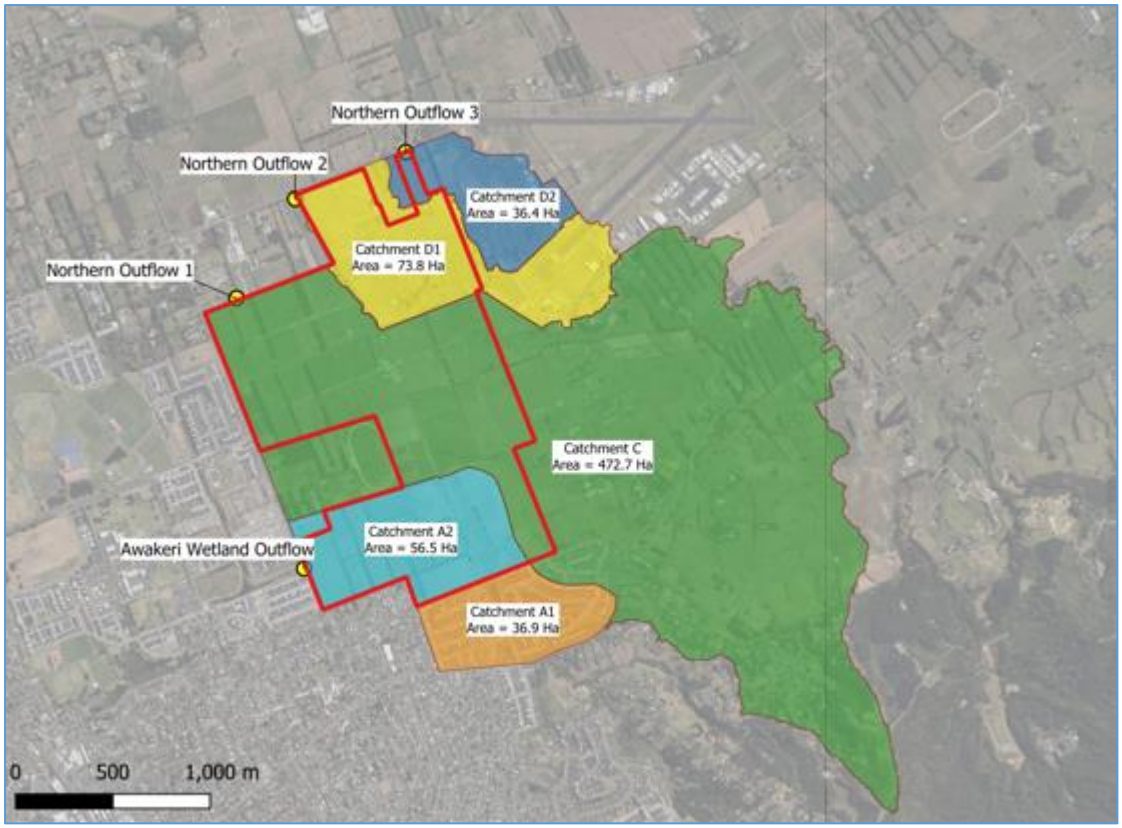

Figure 25: Map of Stormwater Catchments Pre-Development *(Source: Three Waters Strategy Report, Maven)*

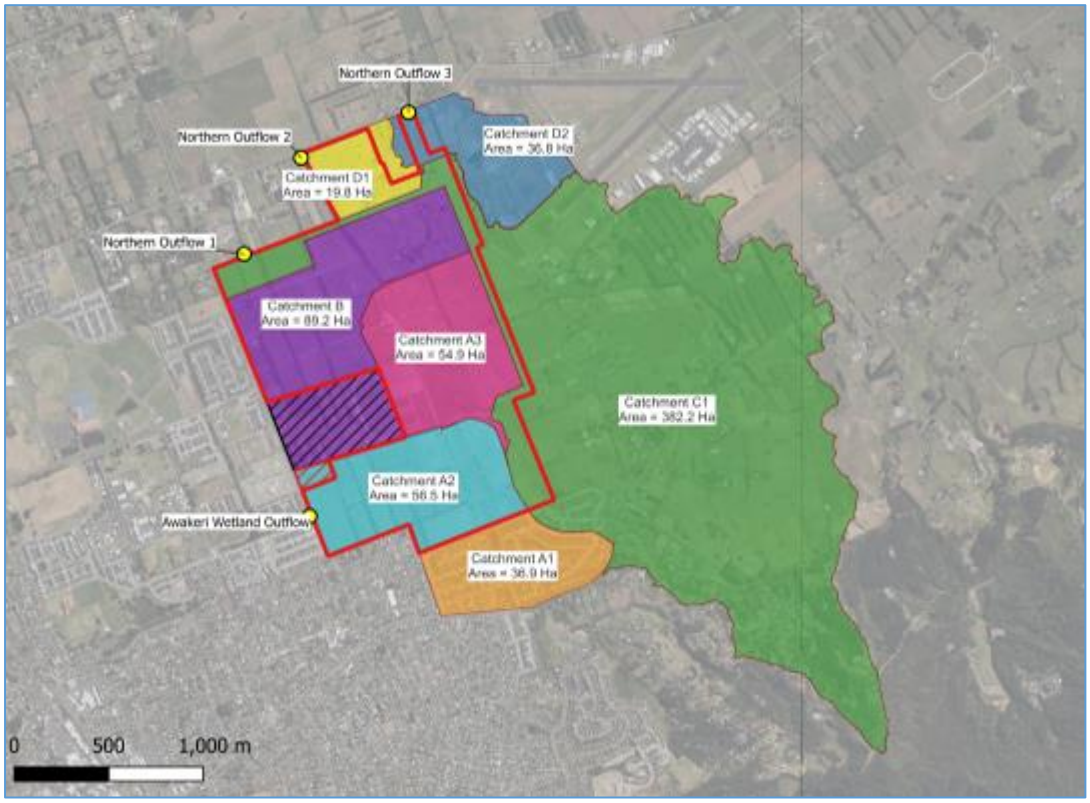

Figure 26: Map of Stormwater Catchments Post-Development *(Source: Three Waters Strategy Report, Maven)*

Figures 27 and 28 below, taken from the Three Strategy Report at section 3.3.3 highlight the stormwater management devices for each catchment and the proposed catchment flow paths.

Proposed Catchment	Catchment A	Catchment B	Catchment C	Catchment D1	Catchment D2
Approach	Attenuation	Attenuation	Diversion of upstream catchment around development site.	Attenuation	Attenuation
Pre-Development Discharge	94 ha (Of which 50ha is in FUZ Zone)	-	473 ha undeveloped	74 ha undeveloped	36 ha undeveloped
Post-Development Discharge	174 ha (Total Catchment) developed	71 ha developed	374 ha undeveloped	23 ha developed	36 ha developed
Outcomes Sought By Flood Management	- Manage the 100-year ARI floodplain to be clear of areas of the proposed development site that will be habitable to buildings. -Provide 100-year stormwater servicing to a catchment where stormwater servicing is not currently present. - Not worsen flood risk upstream or downstream for events up to the 100-year ARI.				
	-Attenuate 10 to 100-year flows to achieve peak flow rate and peak water level design criteria provided by Healthy Waters for Stage 2 & 3 Awakeri Wetlands (based on MPD of FUZ land).	-Attenuate 10 to 100-year flows to maintain peak flow rate to pre-development.	-Conveyance of flows up to 100-year ARI storm for upstream catchment.	-Attenuate 10 to 100-year flows to maintain peak flow rate to pre-development.	-Attenuate 10 to 100-year flows to maintain peak flow rate to pre-development.
Proposed Devices to Achieve Performance Standards					
Conveyance up to 100-year flow	Public roads, swales & extension of Awakeri Wetlands Stages 2, 3 & 4 referred to as "**Awakeri Wetlands Stage 4**".	Public roads & swales	Perimeter swale to divert the upstream catchment to the existing discharge point referred to as "**Northern Outflow 1**"	Public roads & swales to convey OLFP to discharge point referred to as "**Northern Outflow 2**"	Public roads & swales to convey OLFP to discharge point referred to as "**Northern Outflow 3**"
Overland flow & Flood plain Management for 10-to-100-year flow.	Attenuation pond referred to as "**Stormwater Pond 4**".	-Reduction in catchment (Catchment diverted to Catchment A). -Attenuation pond referred to as "**Stormwater Pond 1**".		Attenuation pond referred to as "**Stormwater Pond 2**"	Attenuation pond referred to as "**Stormwater Pond 3**"

Figure 27: Proposed Flood Management Devices *(Source: Three Waters Strategy Report, prepared by Maven)*

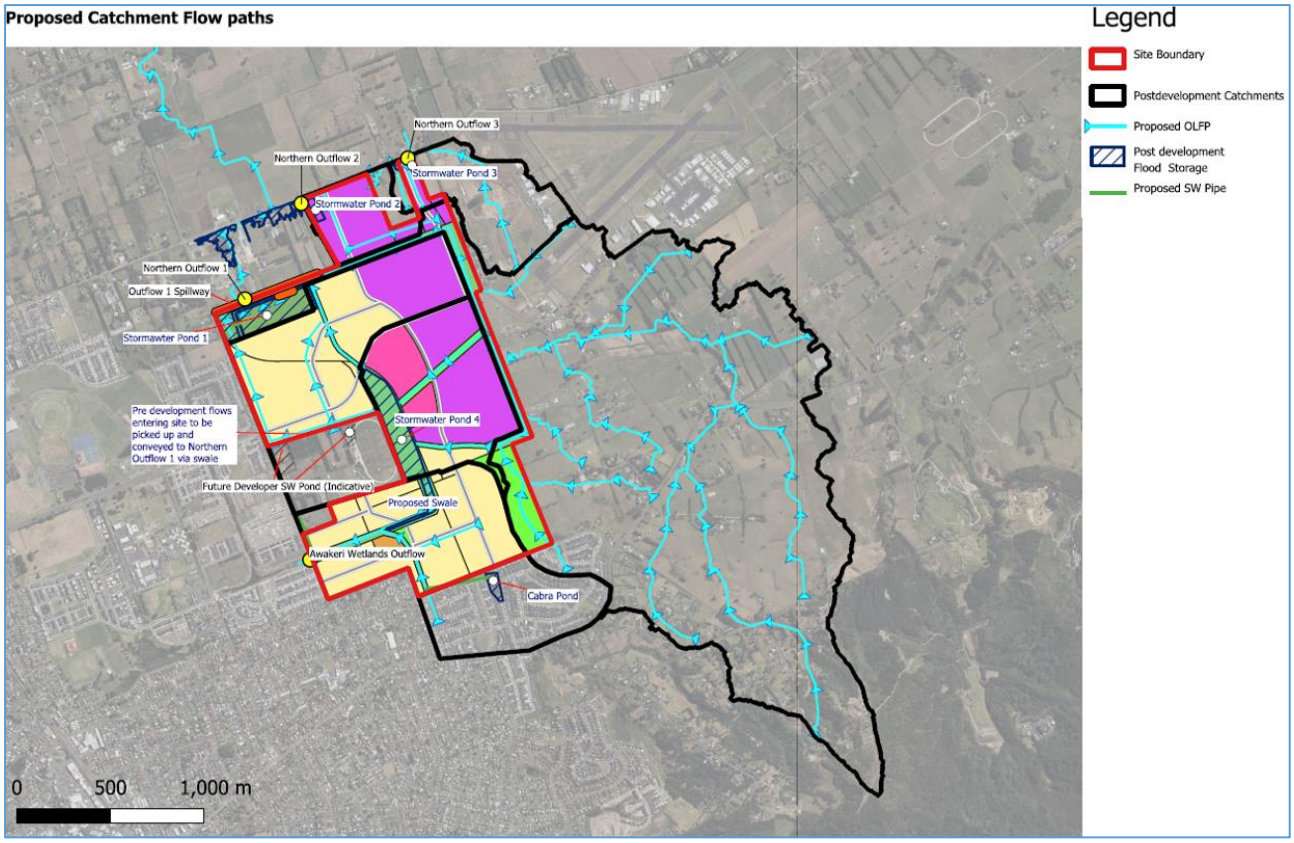

Figure 28: Proposed Catchment Flow Paths and Flood Storage *(Source: Three Waters Strategy Report, prepared by Maven)*

Catchment A

To summarise, the following comments are extracted from the Three Waters Strategy Report regarding Catchment A and peak discharges.

'The key flood management strategy for Catchment A is the diversion of a portion of catchment draining north to Papakura Stream Catchment, this diversion into the Pahurehure Catchment is seen as beneficial to utilise the recently implemented highly engineered existing downstream flood management infrastructure.

The proposed catchment diversion reduces the area draining to Papakura Stream Catchment in post-development scenario. The reduction in catchment size along with the proposed attenuation reduces the overall peak discharge flow rate (for up to 100-year ARI event) to less than pre-development peak discharge flow rate. The 100-year peak discharge draining to the Papakura Stream catchment has reduced from 60.71 m^3/s to 56.9m^3/s This has a positive effect on the Papakura Stream Catchment which is known to have downstream flooding issues.'[19]

The Awakeri Wetlands, and its extension, is proposed to control the 100-year ARI event flood flows, effectively removing the flood plain from the surrounding area.

'Stages 2 and 3 will provide stormwater servicing for the FUZ land and a portion of the MRZ land.

Detailed engineering plans have been prepared for both Stages 2 and 3. Stage 2 design is for the box culverts under Cosgrave Road and the Stage 3 design is a 40m wide channel up to 3m in depth with a low-level permanent stream and side batters ranging from 1:3 to 1:5 up to ground level. (Note: This consent is currently processing)

To provide stormwater servicing of the remainder of Catchment A (part MRZ land) an extension to the Awakeri Wetlands (Stage 4) where a pond is proposed. The proposal is for a 40m wide channel extension to the northern border of the FUZ land, and a 100m wide extension through the MRZ land.

[19] Three Waters Strategy Report, Document 7, Section 3.3.3.1, Page 29

The extension (Stage 4) will be 2m deep and have 1:3 side batters on each side up to ground level. It is envisaged that weirs will be incorporated between the 40m and 100m sections to ensure that flows are adequately restricted through each stage and to mitigate downstream flooding effects.'[20]

Figure 29 below illustrates the post development 100-year extent in Awakeri Wetlands Stage 2-4 (Catchment A).

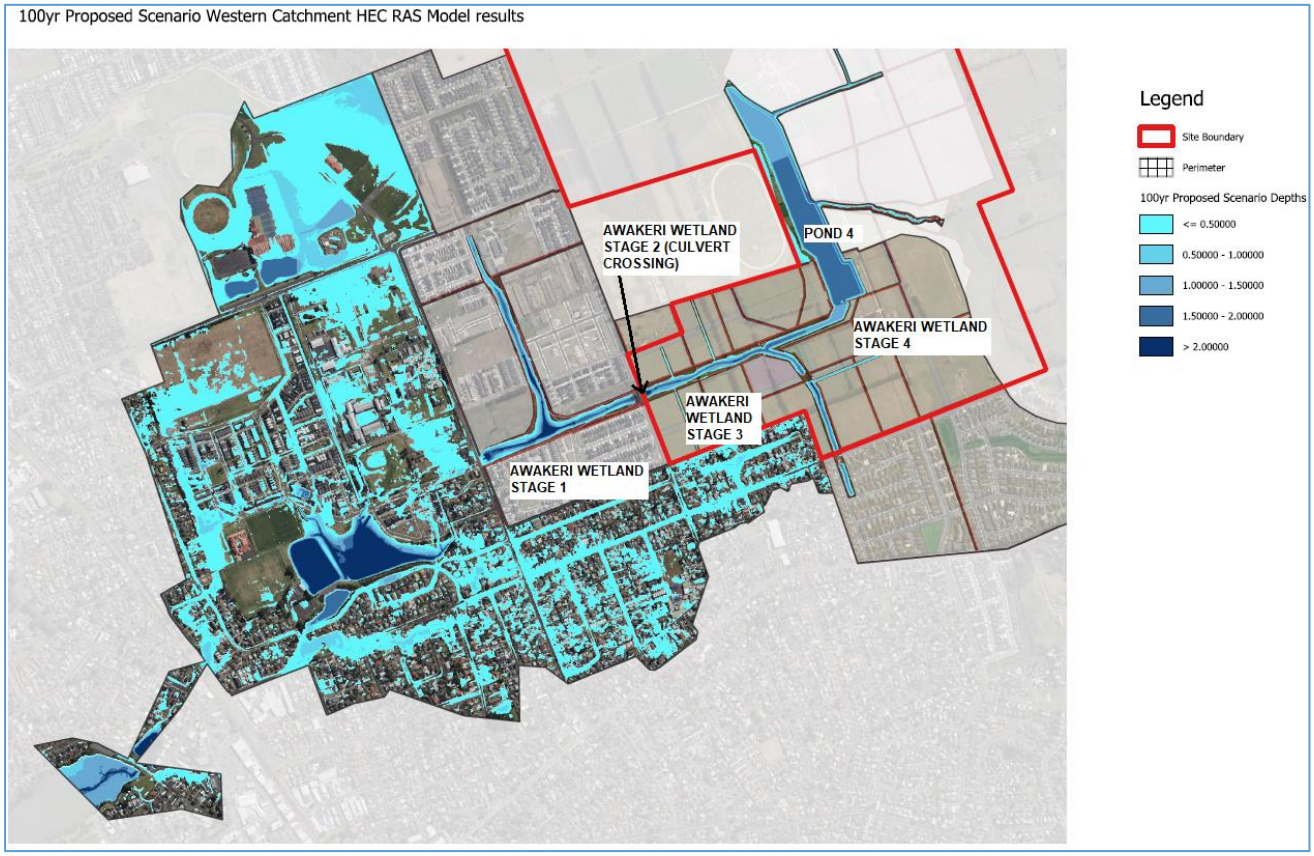

Figure 29: Post development 100-year extent in Awakeri Wetlands Stage 2-4 *(Source: Three Waters Strategy Report, prepared by Maven)*

Catchment B

In regard to Catchment B, the Three Waters Strategy Report outlines the proposed mitigation and states;

'Stormwater attenuation will limit stormwater runoff to the pre-development conditions (flow rate) by utilising stormwater storage during rain fall events up to and including the 100-year ARI event.

[20] Three Waters Strategy Report, Document 7, Section 3.3.3.1.2, Page 30

Stormwater attenuation will prevent any increase in flows resulting from future land use changes/increase in impervious surfaces associated with the development of the Site.

There will be no increased risk of flooding from displaced flood storage as:

1. *compensatory flood storage will be provided within the proposed wetland pond (Stormwater Pond 1) and stormwater swales; and*
2. *the wetland pond and stormwater swales have been designed to contain 100-year ARI event flood flows.*

Post-development 100-year ARI event flows are proposed to be attenuated to existing pre-development levels via a proposed wetland pond (Stormwater Pond 1) and secondary stormwater swales, which will convey flows from the catchment to the wetland pond.[21]

Catchment C

The mitigation for Catchment C is outlined in the Three Waters Report report which states,

'Stormwater runoff from upstream Catchment C (374ha) currently flows through the development site via overland flow during larger rain events.

… It is proposed to redirect the flows from the two permanent upstream watercourses along the eastern perimeter of the Site via an engineered swale.

*Stormwater modelling (**Appendix B**) has determined that the proposed swale will require a surface area ranging from 20-40m wide and will require a trapezoid shape up to 1.5m deep. This engineered swale will be formed with a low flow channel representing a natural stream during final design.*

Once the swale reaches the northern boundary, it is proposed to continue the swale west along the northern boundary of the Site at a flat grade to form a basin with a weir or level spreader outlet structure. Stormwater would pond within the proposed swale before overflowing to the north via controlled sheet flow over the proposed level spreader at the current pre-development flows.'[22]

The proposed overland flow path diversion swale is illustrated in **Figure 30** below.

[21] Three Waters Strategy Report, Document 7, Section 3.3.4.1, Page 32
[22] Three Waters Strategy Report, Document 7, Section 3.2.1, Page 33

Figure 30: Proposed Overland Flow Path Diversion Swale – Catchment C *(Source: Three Waters Strategy Report, prepared by Maven)*

Catchments D1 and D2

In regard to Catchments D1 and D2, the Three Waters Strategy Report outlines the following;

'Post development Catchment D1 is approximately 19.8ha and is proposed to be entirely zoned Industrial/Employment. Catchment D1 will continue to discharge stormwater to the north via an existing discharge point ("Northern Outflow 2") and onwards to the Papakura Stream.

Catchment D2 is approximately 36.4ha and is proposed to be zoned a mix of rural, residential, commercial and Industrial/Employment. Catchment D2 will continue to discharge stormwater to the north via an existing discharge point ("Northern Outflow 3") and onwards to the Papakura Stream.

Attenuation for 10 & 100-year ARI events will be provided for catchment D1 and D2 via the proposed storm water ponds (Stormwater Pond 2 for Catchment D1 and Stormwater Pond 3 for Catchment D2).'[23]

[23] Three Waters Strategy Report, Document 7, Section 3.2.2, Page 34

Overland Flow Paths

For events greater than a 10-year ARI storm event and up to a 100-year ARI storm event, secondary flows will be conveyed along roads, swales and green spaces.

The Three Waters Strategy Report outlines the following design criteria for the overland flow paths:

- *Overland flow paths will be designed with sufficient capacity to accommodate the 100-year ARI storm event for the MPD, including climate change, in accordance with the Auckland Council SWCOP.*

- *They will be unobstructed, with capacity to safely convey runoff through the development.*

- *Overland flows to follow either road reserves or dedicated green areas. All flow paths are proposed to be located within public areas (roads/parks) where practicable and not over private properties without easement or other approval by Auckland Council.*[24]

Stormwater Quality

Stormwater quality will be achieved via a stormwater treatment train approach, including:

- The use of non-contaminating building materials, grated catchpits and inlets to stormwater, gross pollutant filters such as tetra traps within catchpits.

- Runoff from public roads will be captured by a catchpit fitted with a 'tetra trap' or similar over the outlet pipe before overflow to the reticulated pipe network.

- Secondary treatment will be provided via stormwater swales. The stormwater swales will direct and slow stormwater across vegetation. Swales filter sediments, nutrients and contaminants.

- Tertiary treatment for Catchment A will be provided by proposed Stormwater Pond 1, Awakeri Wetlands and the existing McLennan Wetland. Wetlands uses biological processes to provide sediment removal through enhanced sedimentation and biological uptake.

[24] Three Waters Strategy Report, Document 7, Section 3.3.6.2, Page 37

- Tertiary treatment for Catchments B and D will be provided by the proposed Stormwater Ponds 1, 2, 3 & 4. This will provide a high level of stormwater quality treatment before ultimately discharging to the Papakura Stream.

Summary

In summary, the proposed stormwater mitigation strategy will ensure that flooding and stormwater effects will be appropriately mitigated through wetlands and channels, allowing for development to occur within Sunfield.

The Maven report concludes under section 5 of the Three Waters Strategy Report;

- *Enables development by delivering stormwater servicing to catchments where stormwater servicing is not currently present.*
- *Emphasises a water-sensitive design approach that:*
- *minimises or mitigates the adverse effects on water quality, freshwater systems, stream health, and ecological values of the receiving environment through the implementation of stormwater management devices; and*
- *protects and enhances stream systems and natural hydrology, while mitigating hydrological changes and managing flooding effects.*
- *Minimises the generation and discharge of contaminants/sediments into the sensitive receiving environment of the Manukau Harbour.*
- *Manages the 100-year ARI floodplain to ensure there are no adverse effects on proposed development.*
- *Ensures that the flood risk upstream or downstream for events up to the 100-year ARI is not increased.*
- *Allows for the effects of climate change by allowing a climate change factor of 3.8°c degrees in accordance with SWCoP Version 4.*[25]

Based on the range of Maven reports being a Three Waters Strategy Report including a Stormwater Modelling Report (Document 7), a Stormwater Management Plan (Document 9), and an Infrastructure Report (Document 8), the adverse flooding and stormwater effects can be appropriately mitigated.

[25] Three Waters Strategy Report, Document 7, Section 5, Page 51

Conditions are proposed to ensure the effects are appropriately mitigated. This includes a staging plan as to when the respective stormwater management devices need to be operational, in line with the land-use staging of development.

7.5 Wastewater

A Three Waters Strategy Report has been prepared by Maven assessing wastewater matters (Document 7).

Section 4.1 of the Maven report outlines the existing wastewater situation in the surrounding area;

'The surrounding developed residential areas dispose of wastewater via LPS (Low-Pressure Sewer) *system and gravity reticulation to the existing 525mmØ Takanini Branch Sewer line located on Walters Road on the eastern boundary of Bruce Pullman Park. The transmission line traverses northwest and discharges into the transmission pump station located at the Wattle Farm Ponds Reserve in Manurewa. From there, the transmission network continues to traverse northwest and ultimately discharges into the Māngere Wastewater Treatment Plant.'*[26]

Figure 31 below illustrates the existing wastewater assets.

[26] Three Waters Strategy Report, Document 7, Section 4.1, Page 44

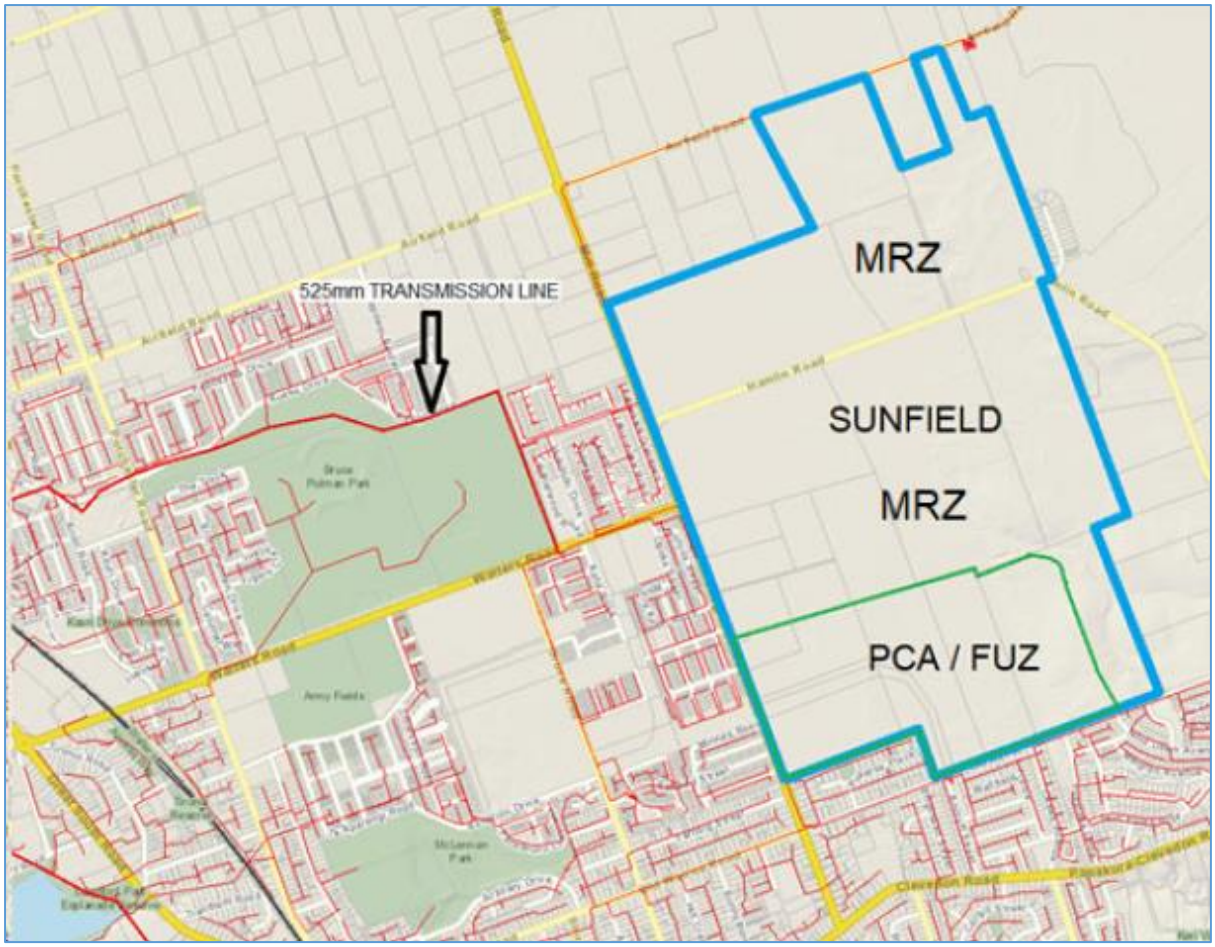

Figure 31: Existing Wastewater Assets *(Source: Three Waters Strategy Report, Maven)*

The Maven report, in section 4.2, goes on to state regarding the proposed wastewater strategy and design;

'The proposed wastewater servicing strategy for the Site is to design and construct a LPS system. The final design will be detailed at engineering approval stage.

The wastewater network will provide wastewater reticulation within the development and will discharge flows to the downstream Takanini Branch Sewer (being the existing 525mmØ transmission line) via a new rising main along Cosgrave Road, Walters Road and Mill Road. Refer to attached engineering plans for the proposed wastewater network.

LPS systems are considered an acceptable alternative to the typical gravity wastewater disposal systems in areas that have:

- *flat low-lying terrain,*
- *poor underlying soil quality, and*
- *a high water table.*

The Site includes each of these components. Its underlying low strength peat soils and high water table (which varies from 1m to 3m below the ground surface) have historically led to gravity wastewater networks 'dipping' and holding wastewater overtime and increases the risk of inflow and infiltration.' [27]

The Maven assessment has undertaken a capacity analysis utilising calculations and the anticipated allowable discharge under the development of the FUZ zoned land.

'The incorporation of an LPS system greatly reduces the ultimate peak discharge. Without inflow and infiltration, the Watercare standards indicate that ADWF ("Average Dry Weather Flow") with an added capacity safety factor of 1.2 per dwelling unit can be used for discharge instead of the PWWF (Peak Wet Weather Flow). *Through the inclusion of an LPS system, the preliminary calculations for the demand for development entails a flow of 57.63L/s which less than the 64.91L/s of capacity network anticipated from the FUZ land.'* [28]

As summarised in the Maven report, the LPS option for the proposed development would therefore keep the discharge levels below the existing downstream capacity, which ensures that subject to the proposed network extensions outlined above, no downstream infrastructure upgrades would be required to service the development.

Conditions are proposed regarding the detailed design of the reticulated wastewater network, including the obtaining engineering plan approval and certification from the utility provider that works have been satisfactorily undertaken. Conditions are also proposed regarding the staging of the reticulated wastewater network to align with land-use development.

Based on the Maven Three Waters Strategy Report (Document 7), any adverse wastewater effects can be appropriately mitigated.

7.6 Water Supply

A Three Waters Strategy Report (Document 7) has been prepared by Maven assessing water supply matters.

Section 4.5 of the Maven report states;

[27] Three Waters Strategy Report, Document 7, Section 4.2, Page 45
[28] Three Waters Strategy Report, Document 7, Section 4.2, Page 45

'Water demand is calculated at approximately 70.56 l/s for average daily demand, 85.84 l/s peak day demand and 154.59 l/s for peak hourly demand.'[29]

'Preliminary Investigations with Veolia have indicated that a connection to the nearest (Bulk Supply Point) *BSP will be necessary to provide the minimum firefighting water supply classification for the development of the site. A public water main will need to be extended from the BSP point to the Site.*

Wastewater and Water supply transmission lines below indicates the closest BSP points located on Airfield Road. The two closest BSP's identified from Watercare's BSP GIS file are the Airfield #1 and Porchester Road BSP's.

To provide sufficient water supply for future development of the Site, a new public water main will connect the site to the Airfield #1 BSP located on the 450mmØ transmission line on Airfield. The BSP may need to be upgraded as part of these works.

If this BSP point does not have sufficient capacity, a new BSP point may need to be constructed on the transmission line closer to the Cosgrave Road intersection. Consultation with Veolia and Watercare will be required to confirm the preferred connection point and capacity.

As the majority of water supply for Auckland originates in the south and the close proximity of transmission line to the site, an engineering solution for either an upgraded BSP or new BSP can be developed to supply the Site's water demand.'[30]

Figure 32 below illustrates the transmission line for bulk water supply.

[29] Three Waters Strategy Report, Document 7, Section 4.5, Page 49
[30] Three Waters Strategy Report, Document 7, Section 4.5.2, Page 49

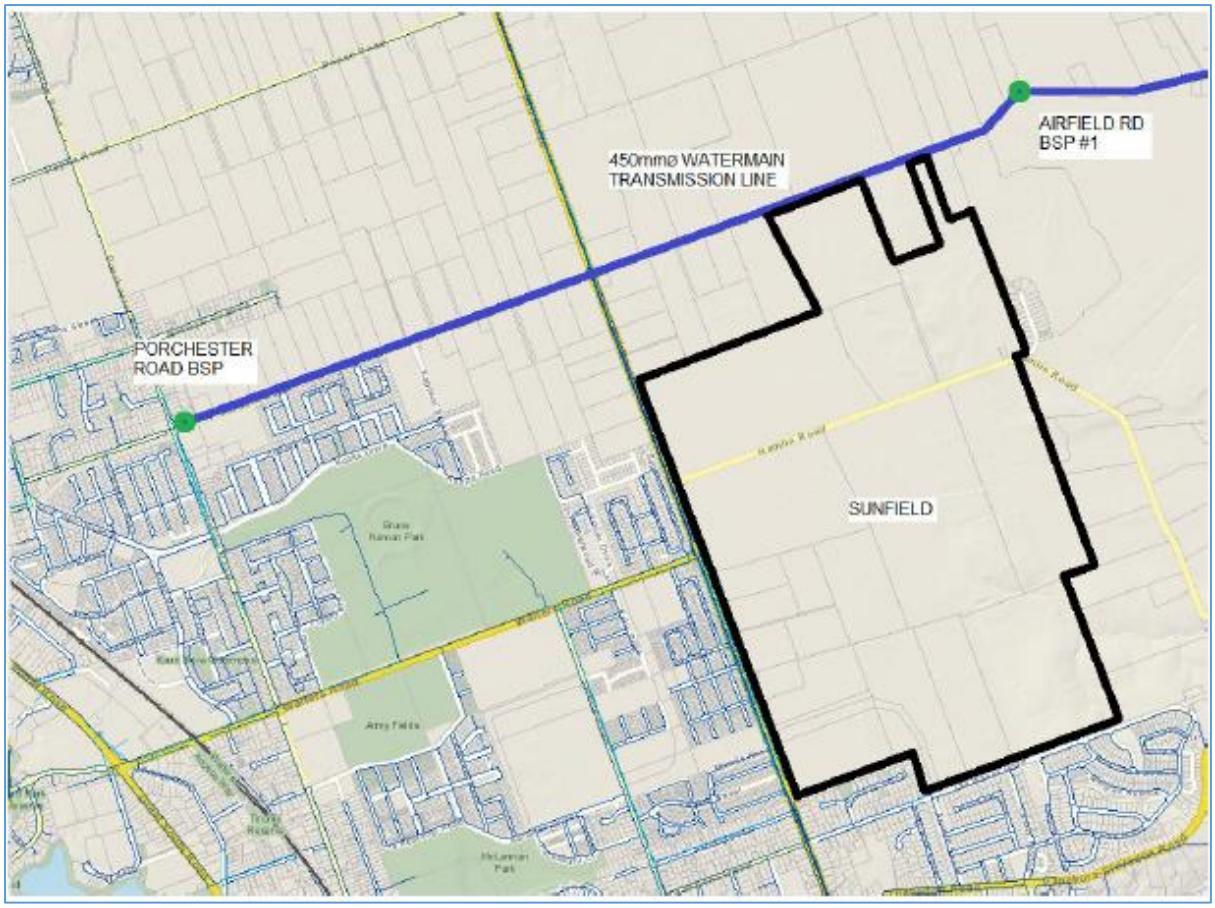

Figure 32: Water Supply Transmission Lines *(Source: Three Waters Strategy Report, Maven)*

As with wastewater matters, conditions are proposed regarding the detailed design, consulting with the network utility provider and staging the roll out of the water infrastructure in line with land-use development. These conditions will ensure that water supply is provided to Sunfield approporiately.

7.7 Other Infrastructure

The Infrastructure Report prepared by Maven (Document 8) outlines the other infrastructure requirements regarding power and telecommunications.

Consultation has occurred with Tuatahi First Fibre Limited (Document 42) and Chorus (Document 44) which outlines that both operators can provide telecommunication connections into the development. Likewise, consultation with Vector regarding the extension of the electrical network has also occurred and is on-going (Document 43).

A condition is proposed requiring certification from the utility provider that the connection has been satisfactorily provided prior to the issuance of the 224c certificate.

7.8 Transportation

An Integrated Transportation Assessment Report has been prepared by Commute (Document 31). This report provides an overview of the existing environment and the proposed development from a transportation perspective, with the key transportation matters outlined below.

Traffic Generation

With regard to trip generation for residential activities, Sunfield proposes 3,854 dwellings, comprising both individual houses and retirement villages, noting a 'standard' subdivision of 1,600 dwellings, as per the Private Plan Change in the FUZ land, would typically generate 0.5-0.65 traffic movements per dwelling in the peak hour and some 800-1,040 movements in the peak hour (two-way).

The Commute Transportation Report highlights the following considerations in respect of Sunfield:

- *Parking is only provided in the order of 10% (excluding visitors) of a more typical development.*
- *'Sunbus' electric bus fleet providing continuous and reliable connection to the Papakura and Takanini Train Stations.*
- *The ability for residents of Sunfield to 'Live Local' and 'Work Local'.*
- *The ability to walk and / or cycle to the Papakura and Takanini Train Station.*
- *600 of the dwellings will be retirement units.*

While only 10% of dwellings own a car, it is considered that the car traffic generation rate is not going to reduce completely to 10% of typical due to:

- *It being more likely that the cars provided will be more utilised than a typical subdivision (i.e. you will only have one if you really need it); and*
- *Uber, etc. will also be used by residents thereby creating traffic in the peak periods (and these create two trips of one entering and one exiting).*

It is considered a more reasonable assumption is the traffic generation will be 20-25% of typical so 0.1-0.16 trips per dwelling. This is 400-640 movements in the peak hour.'[31]

In regard to trip rates associated with employment, Commute outline that:

[31] Integrated Transportation Report, Document 31, Section 9.1.1, Page 35

'The following has been assumed in this assessment, based on the proposed masterplan for the warehouse distribution and office facilities which has been developed for the property:

- *Site coverage of 60% (being 326,610 sqm in total)*
- *45,725 sqm of office (being 14%), and*
- *280,885 sqm of warehouse distribution (being 86%).'*[32]

Due to residents of Sunfield being more likely to work in Sunfield, and controlling warehouse distribution to outside of peak hours, Commute outline:

'It is therefore considered that a more reasonable assumption is that the warehouse distribution peak hour traffic generation will be 10-15% of a typical development. The total for the employment zone is therefore 394-545 movements in the peak hour.'[33]

In regard to trip generation rates for the medical centre, based on the proposal of 7,610m^2, Commute outline:

'The site is however located so that the residents of Sunfield are more likely to use the medical centre. As such external traffic (ie that outside Sunfield) will also significantly reduce. It is therefore considered that a more reasonable assumption is that the traffic generation will be 15-20% of a typical development. This is 100-134 movements in the peak hour.' [34]

In regard to the Town Centre, Commute outline that this area is to primarily serve the Sunfield residents and not those outside of the development area, with limited parking provision, meaning traffic generation is expected to be minimal.

In conclusion, Commute have therefore outlined that the total external traffic generation is expected to be 894-1,329 movements in the peak hour (two-way), with consideration needed to be given to:

- *Sunfield will be developed over an extended period of time in the range of 10 to 15 years.*
- *Sunfield is being developed over an area of 244.5 hectares rather than the 56.5 hectare of development on the FUZ land.*

[32] Integrated Transportation Report, Document 31, Section 9.1.2, Page 36
[33] Integrated Transportation Report, Document 31, Section 9.1.2, Page 36
[34] Integrated Transportation Report, Document 31, Section 9.1.3, Page 37

- *The Sunfield proposal provides an additional 2,400 healthy homes when compared to the development of the FUZ land.*
- *The Sunfield proposal delivers 76.5 hectares of employment, healthcare and education zoned land which is not considered in the development of the FUZ land and will provide permanent employment for in excess of 11,000 people.*

For the purposes of modelling the effects on the surrounding road network from the development, the average of the above range of 894-1,329 movements have been assumed for the peak hour which translates to ***1,112*** *movements per hour.'*[35]

Intersection Upgrades

Modelling has been undertaken to understand the operation of eleven intersections and the potential future intersection layouts. Section 9.3 of the Commute Report outlines that nine local network intersection upgrades are required to facilitate the safe and efficient movement of private vehicles, public transport, and active modes of transport. Figure 33 below illustrates the location of the required external intersection upgrades.

The Commute Report considers the traffic volumes generated by the development and the impact on the surrounding road network using SIDRA traffic modelling. The intersection layouts based on this modelling are outlined within Table 9.2 of the Commute Report, which concludes that the intersection upgrades will operate within industry accepted thresholds with spare capacity, low delays and queuing will be minimal.

'Overall, the operations of the signals are considered to meet industry accepted thresholds and for this reason are considered acceptable. It is also important to remember that the operations are for the peak hours in a 10-year horizon period, and therefore the intersection will operate better than the results show majority of the time.'[36]

[35] Integrated Transportation Report, Document 31, Section 9.1.5, Page 37
[36] Integrated Transportation Report, Document 31, Section 9.4.1, Page 57

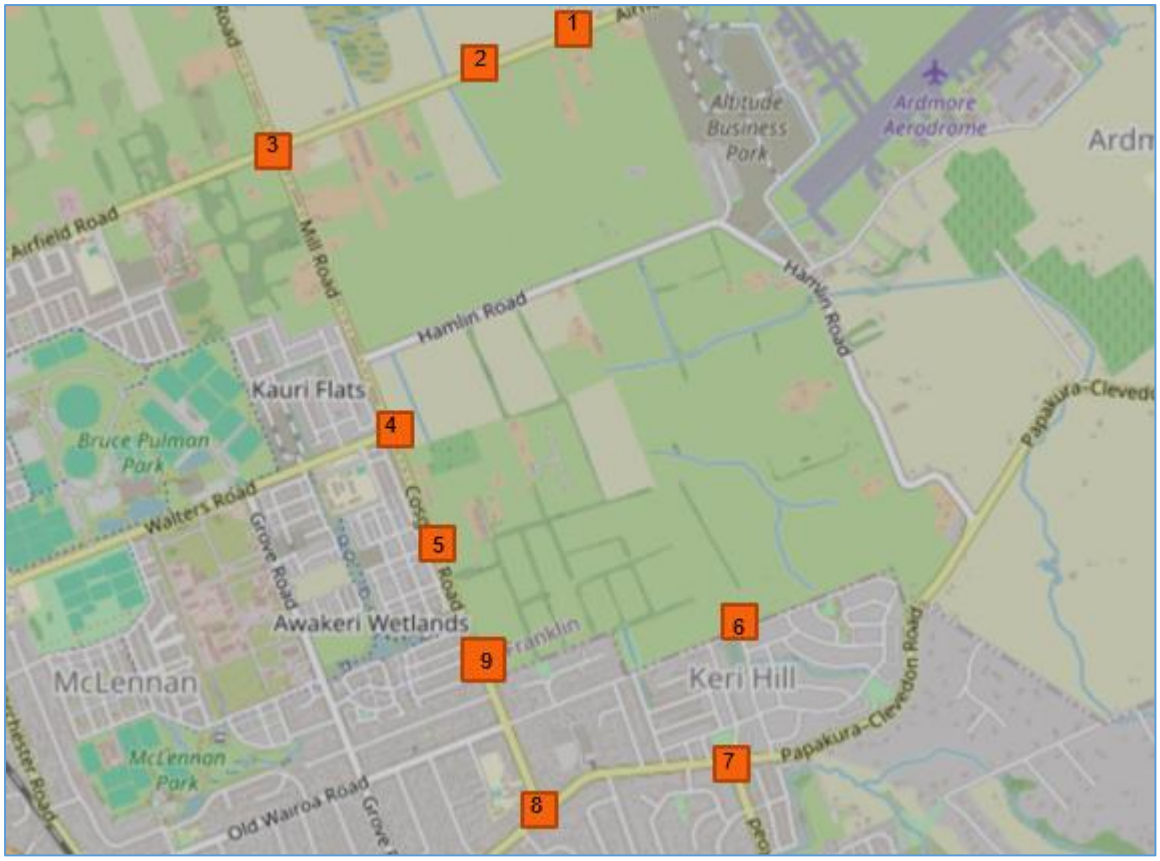

Figure 33: Proposed External Intersection Upgrades *(Source – Integrated Transportation Report, Commute)*

Mitigating Transportation Effects

Sections 11 and 12 of the Commute Report highlight a variety of matters and measures to mitigate transport effects which are summarised below:

a) In the residential environment, it is proposed to reduce parking space numbers with 1 in 10 dwellings having parking spaces, and communal and visitor parking provided at a ratio of 1 space per 10 dwellings. There will also be the provision of car share spaces at a ratio of 1 in every 11.5 dwellings;

b) In regard to parking in the employment environment, given residents of Sunfield are likely to work in Sunfield, Commute highlight:

'The current Unitary Plan would have parking for office at a minimum of 1 per 45 sqm and at a maximum of 1 per 30 sqm (depending on zone). The Unitary Plan also has a City Fringe at a maximum of 1 per 60 sqm and City Centre of 1 per 200 sqm.

For Industrial the Unitary Plan now contains no minimum of maximum rates.

Given parking for the residential use only provides 10% of typical parking numbers, it is considered appropriate to consider a similar stance for employment. As such the following is considered appropriate:

- *Maximum of 1 per 300 sqm for office; and*
- *Maximum rate of 1 per 500 sqm for manufacturing / warehouse / industrial.'*[37]

c) The Sunfield public transport system is expected to cater for a significant proportion of the movement through Sunfield. Commute outline:

'The analysis shows that this equates to about 3,000-3,500 people per hour (during the peak hour) using the Sunfield public transport system (both externally and internally). This translates to around 1,000 people per hour internally and 2,600 externally per hour (both residential and employment). The number of buses required to accommodate this number of people depends on the capacity of the vehicle. Assuming a seating capacity of 40 people this translates to up to 88 bus movements per hour.'[38]

The Sunbus autonomous electric shuttle fleet has been tested and considered, to ensure it is a viable option for the provision of public transport. A letter from Ohmio Automation Limited (Document 39), a New Zealand based company who develop autonomous shuttle vehicles, outlines the operating parameters of such technology.

It is envisaged that requirements will be for a staged approach to the implementation of the public transport system to ensure that the supply of the service marries up to the level of demand, which in turn will reduce transportation effects associated with trip generation.

d) Walking and cycling upgrades will be needed both within Sunfield and in the local network in order to provide appropriate connections to the Papakura and Takanini Rail Stations. Figure 34 below outlines the intended active transport network and possible upgrades required to the connections to the rail stations. Commute outline:

[37] Integrated Transportation Report, Document 31, Section 11.1.2, Page 66
[38] Integrated Transportation Report, Document 31, Section 11.2.1, Page 68

'It is noted that small sections of Walters Road (in particular near Cosgrave Road) already have cycle lanes partly constructed. The detail of the cycle lanes / upgrades will need to be designed / constructed with Auckland Transport.'[39]

The proposal will therefore need to ensure that the cycleways and walkways are in the appropriate locations within Sunfield, and that the wider local network is upgraded to an acceptable standard and when demand dictates.

Figure 34: Active Transport Upgrades *(Source: Integrated Transportation Report by Commute)*

e) There are three main rail crossings between Sunfield and the Papakura and Takanini Rail stations being at Manuroa Road, Taka Street, Walters Road. Given the additional growth from Sunfield, there will be increased movement of people and vehicles across these rail crossings. Supporting Growth Alliance have released a document which will mitigate effects and includes:

- Closing the level crossings of Manuroa Road and Spartan Roads
- Grade separating Taka Street and Walters Road

[39] Integrated Transportation Report, Document 31, Section 11.3, Page 69

- A new grade separated crossing (underpass or overpass) which will connect Rangi Road and Mahia Road (via Popes Road), north of the Takānini Interchange.

These rail crossing upgrades have been subject to Notices of Requirement (NoRs). At the time of lodging this application, these NoRs are currently within the appeal period, which closes on 21st February 2025.

f) A Travel Plan requirement for the Employment Precinct is proposed, which would be continuously updated and refined, with the main aim at minimising freight and deliveries to the area during peak times and to reduce the use of private vehicles.

g) Sunfield is a unique proposal in the New Zealand context, meaning monitoring will be required to ensure the relevant assumptions have been accurate and measures can be adapted as necessary. This will particularly be the case for illegal parking within Sunfield, people parking outside of Sunfield and walking, loading and servicing, and public transport uptake.

Mill Road

Mill Road has been announced as a Road of National Significance within the Government Policy Statement on land transport 2024-34, with Sunfield providing the opportunity for the Mill Road extension to be in close proximity and integrated into a significantly populated development.

Implementation / Staging

The proposal will need to ensure that the staging of transportation infrastructure, including the Sunbus, and upgrades to existing transportation infrastructure are appropriate and timed as demand requires. **Figure 35** below is taken from the Commute Report[40] and provides an implementation plan for the required transportation infrastructure. This has been incorporated into the proposed conditions.

Project	Responsibility	Upgrade	Trigger / timing
Intersection upgrade – Cosgrave Road / Walters Road /	Developer / Auckland Transport	Traffic Signals	After first 50 dwellings within the development site.

[40] Integrated Transportation Report, Document 31, Table 14-1, Page 75

Project	Responsibility	Upgrade	Trigger / timing
Hamlin Road (Road 6)			
New/Upgrade Intersection – Cosgrave Road / Clevedon Road / Papakura-Clevedon Road	Developer / Auckland Transport	New signalised intersection and bypass lane on Clevedon Road.	Required prior to any dwellings are occupied as currently operates below industry accepted thresholds.
Intersection upgrade – Okawa Ave / Clevedon Rd / Dominion Rd / Papakura-Clevedon Rd	Developer / Auckland Transport	Traffic signals	Dependant on exact staging. Likely needed early in development of the development site due to existing capacity issues.
New/Upgrade Intersection – Cosgrave Road / Road 4	Developer	Traffic signals for the two roads on Cosgrave Road, a priority-controlled intersection is anticipated on Old Wairoa Road	Required prior to any dwellings accessed via the respective roads are occupied.
New/Upgrade Intersection – Cosgrave Road / Road 2 / Bellbird Street	Developer	New signalised intersection with bypass lane on Cosgrave Road (north).	Dependant on exact staging. Likely needed early in development of the development site due to existing capacity issues.
Intersection Upgrade – Airfield Road / Mill Road	Developer	Traffic signals.	Dependant on exact staging. Likely needed when development occurs with access to Airfield Road.
New/Upgrade Intersection – Airfield Road / Road 1	Developer	New priority-controlled intersection.	Access to Airfield Road

Project	Responsibility	Upgrade	Trigger / timing
New/Upgrade Intersection – Airfield Road / Road 7	Developer	New priority-controlled intersection.	Access to Airfield Road
New/Upgrade Intersection – Pakaraka Drive / Old Wairoa Road / Road 1	Developer	New signalised intersection and approach lane on Old Wairoa Road.	Link to Old Wairoa Road.
Pedestrian link	Developer	Upgrade Old Wairoa Road (northern side frontage of development site) to include a pedestrian footpath adjacent to the development area.	Required with any development accessed off Old Wairoa Road.
Pedestrian and cycling links	Developer / Auckland Transport	Connect the development site to key local destinations by providing improved active mode facilities on Cosgrave Road between Walters Road and Clevedon Road.	Required with any development of the development site.
Public transport	Recommend that this be a joint venture between Auckland Transport and the Developer	A frequent service is required between the development site and Papakura Town Centre. The wider area would benefit by this service being a public bus, which is why a joint venture is recommended.	Difficult to implement straight away (no demand). Likely warranted at 300-500 dwellings. However interim bus / shuttle service should be considered early / during initial stages of development.
New street network through the development site	Developer	As the development site develops the internal road network will be required. Pedestrian / cycling provisions to be included on collector roads as per Figure 4-1.	Any site with frontage to a new street.

Figure 35: Required Transportation Upgrades *(Source: Integrated Transportation Report, Commute)*

Internal Layout

Section 10 of the Commute Report provides an analysis of the internal layout of the Sunfield development, which includes an assessment of:

- the road layout in general;
- the road cross sections;
- the longitudinal gradients of roads;
- vehicle tracking;
- internal road intersections;
- bus stops; and
- the roading and lane layout within residential neighbourhoods.

The Commute Report is of the view that the internal layout is appropriately set out from an operation perspective, with the EPA process being able to consider the consistency of design through the detail design review. The Commute Report states:

'Overall, it is considered that the proposed road network within the development site is adequately designed and provides suitable connections to the existing road network.'[41]

Conclusion

The proposed transportation effects are understood and can be appropriately mitigated through appropriate design solutions, appropriate upgrades to infrastructure and on-going monitoring of the transportation environment.

7.9 Cultural Values

A Mana Whenua / Māori Engagement Report has been prepared by Navigator Limited outlining the engagement process with iwi and the key outcomes and findings from mana whenua (Document 5).

Engagement Process

The Mana Whenua / Māori Engagement Report outlines that the following occurred with regard to engagement with Iwi Authorities;

'The project site sits within the rohe (area) of several Iwi with Mana Whenua interests. Auckland Council recognises 19 Iwi Authorities as part of planning processes. The Applicant, following the Auckland Council

[41] Integrated Transportation Report, Document 31, Section 10.1, Page 58

process, contacted each of the 19 Iwi Authorities regarding the Sunfield development in 2021. Six Iwi Authorities expressed a cultural interest in the whole site…'[42]

'In early November 2023, the Applicant directed Navigator to re-engage the same six Iwi Authorities…'[43]

Section 3.3 of the Mana Whenua / Māori Engagement Report then goes on to summarise the engagement undertaken in relation to Sunfield;

- All six Iwi Authorities (Ngaati Te Ata Waiohua; Ngaati Tamaoho; Te Akitai Waiohua; Ngaati Whanaunga; Ngāti Paoa; Ngai Tai ki Tamaki) have been actively involved in the engagement which has been undertaken from November 2023 to March 2024.

- They are the same six Iwi Authorities who were previously involved for seven months of engagement in 2021.

- All six Iwi Authorities wish to continue their involvement in Sunfield.

- Three Iwi (Ngaati Te Ata, Te Akitai Waiohua, Ngaati Whanaunga) have provided their own Cultural Values Assessment for Sunfield.

- One Iwi (Ngaati Tamaoho) has confirmed their recommendations from their Cosgrave Road Resource Consent CVA (55ha of the same site) can be extrapolated out to Sunfield. The applicant has accepted those recommendations.

- One Iwi (Ngati Paoa) has confirmed their interest in further engagement and support Sunfield being positively assessed.

- The Mana Whenua Engagement Report provides evidence that the engagement to date by the Applicant with mana whenua has been over and above the standard normally expected.

- Detailed file notes from meetings, video calls and onsite visits with representatives of the six Iwi Authorities.

[42] Mana Whenua / Māori Engagement Report dated February 2025, Document 5, Section 2, Page 3
[43] Mana Whenua / Māori Engagement Report dated February 2025, Document 5, Section 3.2, Page 5

- Evidence that the perspectives of Iwi representatives had led to amendments to the proposed Sunfield development (i.e. the work relating to the Wai Mauri Stream Park remediation plan).

- Evidence of the Applicant acknowledging and understanding Te Ao Māori and matauranga (knowledge) Māori concepts and how these align with the Sunfield design objectives and key moves.

- Evidence and acknowledgement by Iwi representatives that the Applicant is committed to continuing further discussion on Sunfield and how their kaitiaki responsibility might be upheld during the lifetime of the project.

The Iwi involved preferred to undertake engagement at an individual Iwi level, however, all Iwi Authorities were aware of each other's interests and participation in Sunfield, and Navigator ensured that all Iwi were provided with the same opportunity and channels of engagement.

Engagement has also occurred with Papakura Marae, which is an urban marae for the Takanini, Papakura, Ardmore, and Drury areas. The six Iwi Authorities were aware of the Applicant's engagement with Papakura Marae and all acknowledged and confirmed the appropriateness of this engagement, recognising that Papakura Marae is a community stakeholder and not mana whenua and engagement with them should not be equal to the engagement afforded to Iwi Authorities.

In regard to engagement with Ngai Tai ki Tamaki, the Mana Whenua / Māori Engagement Report outlines under section 7.2;

'It should be noted that during this period of engagement, Ngai Tai ki Tamaki's Chairperson, James Hemi Brown, passed away. Whilst there was has been some responses to the numerous efforts to engage from that Iwi, Navigator had kept them apprised of progress by email and text messages and that contact recorded in the Contacts Log. We acknowledge the passing of their Rangatira (Chief).'[44]

Collective Themes

Section 7.4 of the Mana Whenua / Māori Engagement Report outlines the following collective themes arising through the various hui, engagement and korero;

- Support the Sunfield proposal including its eight design principles.

[44] Mana Whenua / Māori Engagement Report dated February 2025, Document 5, Section 7.2, Page 12

- Accept the intention from the applicant to further discuss specific opportunities for mana whenua to participate meaningfully in aspects of Sunfield.

- Acknowledge there has been some good discussions with mana whenua on where Iwi whakapapa to the site can be recognised (provided for).

- Those Iwi that provided CVAs acknowledge the formal response back from the applicant accepting most recommendations which in turn leads to the Iwi whakapapa being "provided for".

- Water is taonga and support the themes being developed for Sunfield that relate to the mauri (life force) of the waterways. Iwi support the three habitats (social, land, water) objectives in the landscape design of Sunfield.

- Support the Wai Mauri Stream Park remediation plan. Support that Wai Mauri be used as a case study for how to engage mana whenua on a specific project within the Sunfield community.

Figure 36 below illustrates the stream park in the south-eastern corner of the Sunfield, known as 'Wai Mauri Stream Park'.

Figure 36: Wai Mauri Stream Park *(Source: Wai Mauri Stream Park, Sunfield Stream Remediation, Landscape Design Report prepared by Studio Pacific)*

- Support the continued engagement on the Awakeri Stages 2 and 3 Stormwater Improvement Project: significant project for three of the six Iwi given they were heavily involved with Stage 1. Awakeri will aid the Sunfield site and the broader Papakura area. Three Iwi Authorities (Ngaati Te

Ata Waiohua, Ngaati Tamaoho, Te Akitai Waiohua) are actively involved with the Awakeri resource consent process.

- Acknowledge the provision of opportunities for cultural design. As reiterated in the Cultural Values Assessments (CVAs), the opportunity to engage with the Applicant on cultural design input in implementation would be welcomed. All Iwi Authorities are working with the Applicant on other projects so are familiar with the level of engagement required around cultural design and narratives.

- All Iwi Authorities acknowledge the easy access to all technical reports and the transparency of engagement with senior executives of the applicant. This allowed for good discussions at the various Hui and the onsite visits to raise concerns or opportunities. Trust was established through the transparency of early sharing of technical reports with Iwi representatives.

The Iwi Authorities wish to be engaged on this project going forward and all Iwi have explicitly confirmed their interest in supporting the Applicant's activation of the site.

Summary

Having reviewed the Mana Whenua / Māori Engagement Report and the associated Annexures, including the correspondence and file notes, it can be concluded that:

- The Applicant has undertaken an extensive amount of engagement regarding Sunfield, which has been meaningful by ensuring Iwi Authorities are informed and understand the proposal and core principles, whilst having the opportunity to provide feedback and work collaboratively on tangible design solutions. If reservations or concerns have arisen regarding Sunfield, all the necessary information has been provided to Iwi, which has enabled open and constructive dialogue.

- This engagement has led to positive design outcomes which address cultural values. An example of this is Wai Mauri Stream Park Remediation Plan, which has been designed with close engagement with and agreement from Iwi.

- The six Iwi Entities support the Sunfield proposal and the activation of the site.

- Given the scale of the Sunfield proposal, feedback to date has largely been in the form of a high-level overview. It is recognised that on-going engagement will be required. The Applicant supports the continued activation of a structured engagement approach with the six Iwi Authorities (Mana

Whenua), which has been formalised through a proposed condition of consent and the establishment of a Mana Whenua Consultative Group.

- Section 8.1 of the Mana Whenua / Māori Engagement Report outlines the key matters which Iwi felt require future engagement, being:

    - All six Iwi Authorities prefer to engage individually. Whilst a 'Mana Whenua Consultation Group' may be established, the purpose of this group will need further consideration. For example, it may be a good opportunity for the Applicant to provide updates to mana whenua, but not to receive direct feedback.

    - Whilst supported, further cultural input into the eight Masterplan Design Principles.

    - Alignment to the Awakeri Wetland Project, with three Iwi involved in Stages 2 and 3.

    - The name 'Wai Mauri' is gifted to the wetland in the south-eastern corner of Sunfield, and the Iwi Authorities welcome gifting further Māori names, as appropriate and when agreed by the Applicant, to other areas of Sunfield.

    - Project shared values and principles, particularly areas of open space or the public realm where people will interact.

    - On-going engagement with Iwi should continue as detailed design develops and implementation occurs, particularly regarding the landscaping and environmental elements.

- The design layout and response addresses the key environmental components of iwi interest, particularly stormwater, streams, wetlands, landscaping and ecology. Mana whenua will continue to be involved in the design philosophy and implementation as Sunfield evolves, through the proposed consent conditions. A condition is also proposed requiring the consent holder to invite mana whenua to give a cultural induction to the site, to all relevant contractors involved prior to the commencement of earthworks and construction.

It is considered that the cultural values relating to the site have been considered by the applicant through appropriate engagement with mana whenua, with on-going collaboration envisaged, which will be formalised through the proposed conditions of consent.

7.10 Productive Land

An assessment of Sunfield regarding the potential loss of productive land has been undertaken by Landsystems (Document 28).

The Landsystems report concludes:

'The highly productive land on the Sunfield site is LUC class 2 and 3 land but the site does not contain any LUC class 1 land.

The poorly drained soils (LUC units 3w2 and 2w2) on the site, although considered highly productive land, are not suitable for intensive horticulture crops requiring deep, well drained soils.'[45]

The report expands upon this point and states that although the land on the Sunfield site is classed as NPS-HPL highly productive land, the majority of the soils (excepting the areas of LUC 2s4) on the site have heavy clay soil textures (LUC 2e5 and 3e4) and/or wetness limitations (LUC 3w2 and 2w2) that restrict the range of primary production land uses that would be viable. For these areas, cultivation during wetter periods is not sustainable and the soils are not suitable for deeper rooting horticultural crops requiring deep, friable, well drained soils (i.e. the range of sustainable land uses is restricted).

The highly productive land areas that are moderately well to well drained (LUC 2s4) do have soils suited to vegetable production and deep rooting horticulture. However, individually they are limited in area and use of these areas for such primary production enterprises is not considered to be practical. Additionally, the areas are isolated from other land with similar characteristics. They are surrounded by areas that have heavy clay soil textures (LUC 2e5 and 3e4) or are poorly drained (LUC 2w2 and 3w2) highly productive land. The soil wetness limitations, and limited distribution of the well drained soils reduce the productive potential of the highly productive land on the site as a whole.

Therefore, based on this report, it is considered that the land subject to this proposal, when reviewed in detail, is generally land not of high production value given the heavy clay soil textures and wetness

[45] Landsystems Report dated 25/11/24, Document 28, Section 10, Page 14

limitations. Urbanisation is therefore considered an appropriate land-use recognising the surrounding residential areas and airport, and low agricultural productivity and economic viability, with the effects associated with a loss of productive land being mitigated by an alternative, more appropriate land-use.

7.11 Ecology

An Ecology Baseline Report undertaken by Bioresearches submitted with this application (Document 34) provides an assessment of the current ecological values within Sunfield. This has assessed both freshwater ecology and terrestrial ecology, and has divided Sunfield into three distinct areas being Sunfield North, Sunfield South, and Cosgrave Road. To summarise:

Freshwater Ecology

- Sunfield North – The watercourses within Sunfield North predominantly consist of modified permanent streams or artificial drainage channels. No natural inland wetlands were observed within the area. The overall ecological value is considered to be low due to significant modifications (primarily for farming activities), with low aquatic habitats and riparian yard functions.

- Sunfield South – Several watercourses are present which are tributaries of the Papakura Stream, which flows in a western direction before discharging into the Manukau Harbour. One wetland was identified within this portion of Sunfield which contributes to the aquatic habitat present within the site. The overall ecological value is considered to be low due to significant modifications (primarily for farming activities), with low aquatic habitats and being in a degraded state.

- Cosgrave Road – The freshwater values of this portion of Sunfield are limited to artificial watercourses created to facilitate farm drainage. No natural watercourses are apparent in aerial images, and the presence of highly-modified permanent/intermittent streams has been excluded. No natural inland wetlands area present, and aquatic fauna that may inhabit the artificial watercourses would be restricted to robust species such as shortfin eel.

  As highlighted by **Figures 37 and 38** below, the natural streams (primarily Watercourse 2) and a natural wetland in the south-eastern portion of the site (Sunfield South) will be protected and enhanced. Over time, these conveyance channels and streams, with the associated planting, will see the creation of an environment with high ecological value. As previously mentioned, this is to be formally known as 'Wai Mauri Stream Park'.

The change of use from rural pastoral purposes with stock traversing the site, to urban residential development, where the streams are revegetated and not subject to constant stock movement, will have positive environmental benefits.

Stormwater management procedures will also be put in place to ensure appropriate treatment of runoff from this area into the wetland and streams.

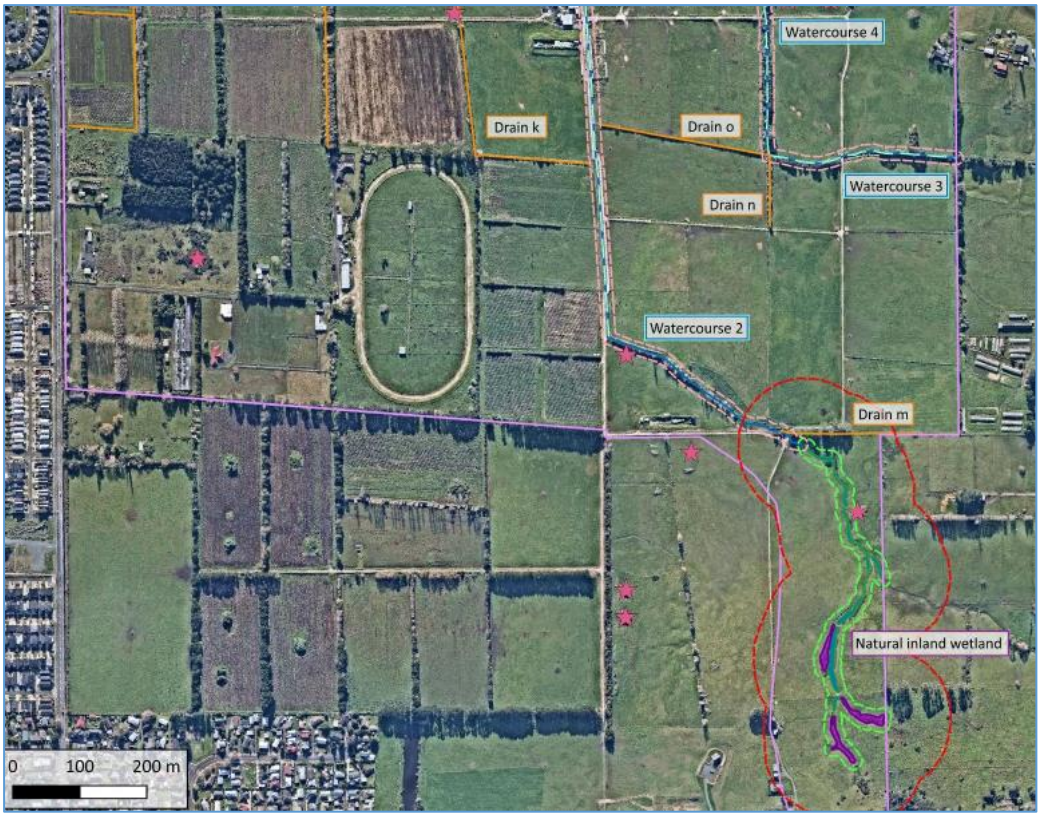

Figure 37: Existing natural wetland location *(Source: Ecological Report from Bioresearches)*

Figure 38: Wai Mauri Stream Park *(Source: Wai Mauri Stream Park, Sunfield Stream Remediation, Landscape Design Report prepared by Studio Pacific)*

Terrestrial Ecology

- Sunfield North – The terrestrial ecological value within Sunfield North was considered to be moderate. Given the rural production activities on site, vegetation within the area is generally stock shade trees and shelter belts of low botanic quality. The moderate classification was primarily due to a stand of Kahikatea trees which have been present for at least 60 years, and in turn the possibility of 'threatened' long-tailed bats being occasionally present in the area.

  A bat survey was undertaken on the Sunfield site in April 2024, the methodology and results of which are contained within the Ecology Report, indicating that no bats were detected during the survey.

- Sunfield South – The terrestrial ecological value within Sunfield South was considered to be low given the area is dominated by exotic woody vegetation and pasture grasses, with limited diversity and linkages.

- Cosgrave Road – The terrestrial ecological value of the site is largely limited to planted exotic vegetation and shelterbelts, and some small, isolated patches of planted native vegetation. The majority of this area is largely comprised of low-ecological value managed pasture.

The stand of Kahikatea trees is located within the Employment Precinct, and will not be protected or retained as part of this proposal.

Therefore, given the loss of the Kahikatea stand and other vegetation, and the modifications of artificial drains, there will potentially be an adverse ecological effect on the area. However, based on the current ecological values of the site, and the significant planting and landscaping associated within the proposal, particularly adjacent the stormwater channels, in the riparian margins and adjacent the natural inland wetland within 'Wai Mauri Stream Park', these ecological effects will be appropriately mitigated.

The retention of Watercourse 2 and the Natural Inland Wetland, the two features within Sunfield worthy of protection, will also help mitigate any adverse effects. As per the Earthworks Plan contained within the Engineering Plans (Document 10) prepared by Maven, no earthworks are proposed within the vicinity of Watercourse 2 and the Natural Inland Wetland.

Conditions have also been proposed to ensure that ecological effects are appropriately managed and overseen, which includes ecological management plans for fish, lizards, vegetation removal, and a stream riparian planting plan to be submitted and certified prior to works commencing on site. A draft Environmental Management Plan is attached as Document 35.

7.12 Landscape and Visual Impacts

A Landscape and Visual Effects Assessment prepared by Reset Urban Design Limited accompanies this report (Document 18).

Within its Executive Summary, the report concludes[46]:

- ***Low adverse landscape effects****, due to the existing landscape values and the proposed long-term rehabilitation, revegetation and enhancement of the Site. Proposed planting measures will notably enhance the ecological value of the Site over time along with its contribution to local linked habitats. There would be a range of positive environmental outcomes associated with the Proposal.*

[46] Landscape and Visual Assessment, Document 18, Page 3

- ***Low adverse visual effects**, due to the mitigation measures of the Proposal being considered effective at reducing impacts, and the overall adverse effects of the Proposal on the visual amenity considered to be an acceptable change within the surrounding environment. The proposal successfully integrates into both the urban and rural context and provides a more suitable vegetated transition from these two areas.*

The assessment concludes that the Site can accommodate the Proposal without significantly diminishing the landscape attributes, values and character of the Site and/or surrounding landscape, for the following reasons:

- the current surrounding environment is rural and urban in nature with Ardmore Airport being located immediately adjacent the site.

- the Sunfield area is currently used for rural production and has very limited vegetation. It therefore does not currently possess high landscape values or qualities.

- the generally flat topography and extensive shelterbelt planting in the area reduces the viewing audiences to primarily close views from the neighbouring roads.

- the design of Sunfield manages the landscape and visual effects, including the extensive open space, planting and restoration strategy, the central stormwater system, a revitalised stream park, a wetland park, neighbourhood parks, sports parks and extensive boundary buffer treatments.

- the proposed development will typically be up to three storeys in a variety of sizes and forms which will visually connect to the neighbouring suburbs of Takanini and Papakura. The building bulk and size is also restricted due to the geotechnical conditions and the nearby Ardmore Airport.

7.13 Ardmore Airport – Reverse Sensitivity

Ardmore Airport is located to the east of Sunfield, and was established in 1943 at the request of the US Airforce as an operational base during World War Two. Upon the opening of Auckland International Airport, Ardmore Airport grew as a general aviation hub providing alternative facilities for general aviation.

Today, Ardmore Airport has over 10,000 aircraft movements per month and is open 24 hours per day and hosts over 90 tenants on the airfield from a range of industries and users including:

- Five (5) fixed wing flight schools, two (2) helicopter schools and six (6) charter operators; and
- Maintenance bases for rotary and fixed wing, agricultural aviation suppliers, private hangars, and the NZ Warbirds head office and homebase to about 40 warbird aircraft.

Given the proximity of Ardmore Airport, consultation has occurred to ensure that the design response of Sunfield, and the level of protection afforded to Ardmore Airport, is appropriate. The site is designated (number 200) under the Auckland Unitary Plan with the purpose being:

'to provide for the efficient operation and growth of Ardmore Airport by enabling airport activities and flights while defining airport approach and land-use controls.'

The designation has a number of conditions and restrictions regarding:

a) Height restrictions of buildings within aircraft approach areas.
b) Noise boundaries and limits for managing aircraft noise, including noise monitoring.
c) Restricting flight hours and the number of movements, including airshows.

The extent of the designation is outlined below in Figures 39 and 40.

Figure 39: Ardmore Airport Designation ID 200 *(Source: Auckland Council Geomaps)*

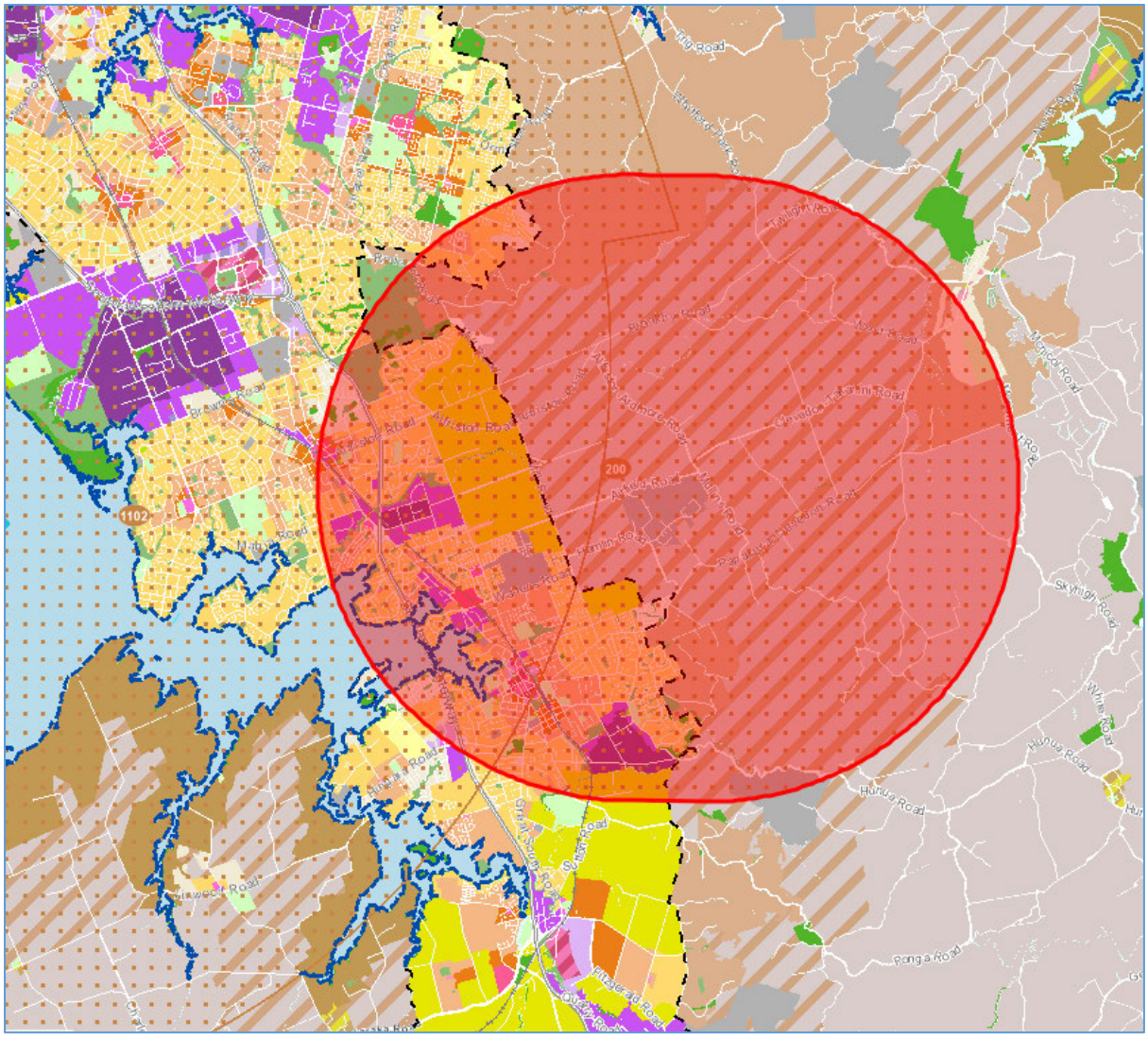

Figure 40: Ardmore Airport Designation ID 200 – Height Restrictions *(Source: Auckland Council Geomaps)*

Within the Auckland Unitary Plan, Chapter D24 contains the Aircraft Noise Overlay in order to;

'manage the subdivision of land and location of activities sensitive to aircraft noise in areas of high cumulative noise around the region's airports and airfields, so that the continued operation of the airports and airfields is not compromised and reverse sensitivity issues are addressed.'

This is undertaken through noise overlay contours and the restriction of activities within them, with the contours illustrated below in **Figure 41**.

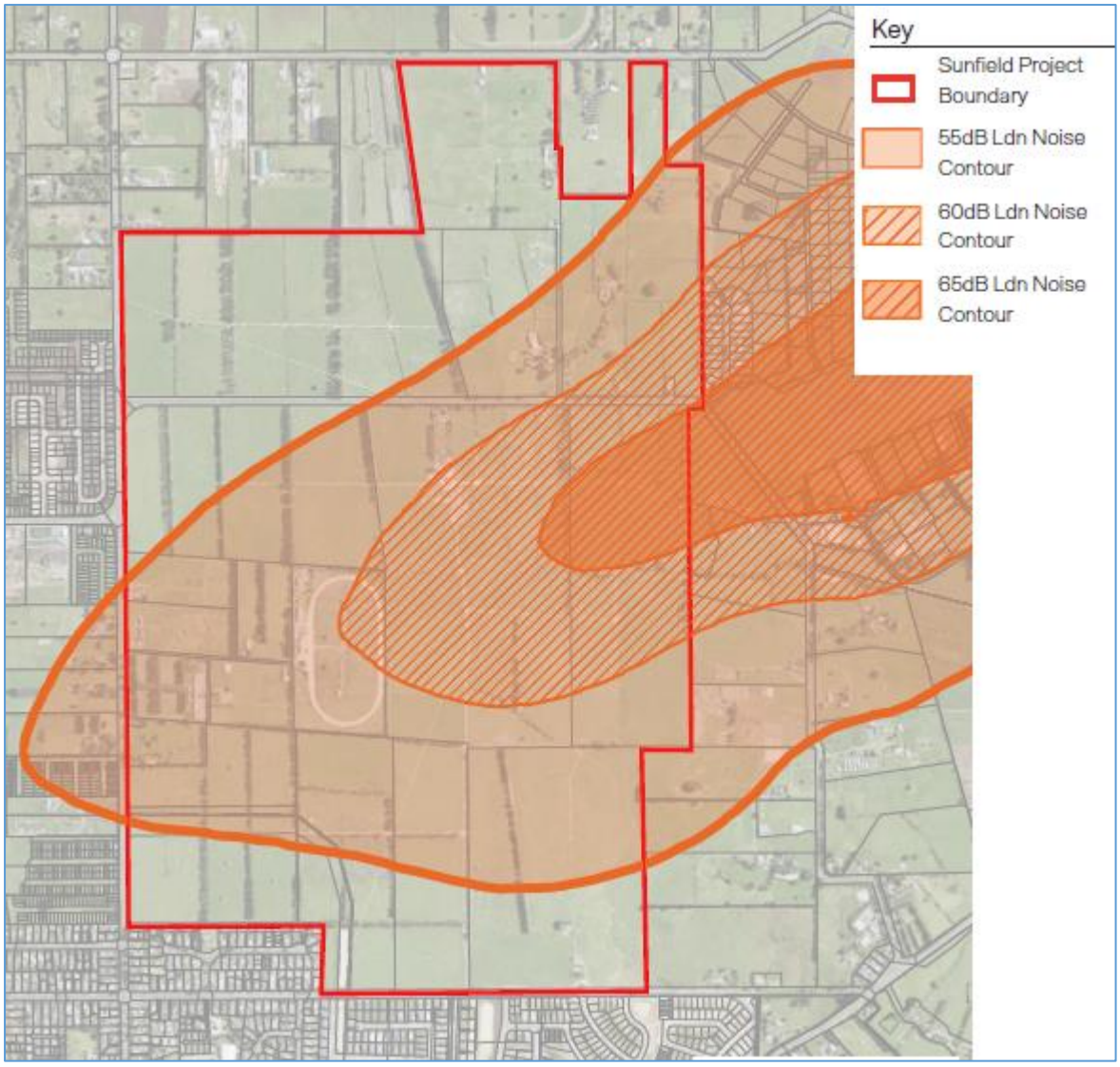

Figure 42: Noise Overlay Contours – Chapter D24, Auckland Unitary Plan *(Source: Masterplan)*

As part of this application an Aviation Safety Report entitled 'Proposed Sunfield Development, Ardmore Airport Safeguarding' prepared by Lambert & Rehbein Pty Ltd is provided (Document 19). This has in turn been peer reviewed by Avlaw Aviation Consulting (Document 20) and Leading Edge Aviation Planning Professionals (Document 21).

A Lighting and Glare Analysis has been provided by Ibex Lighting regarding the safeguarding of Ardmore Airport (Document 22), which is accompanied by a letter from Lightforce Solar regarding solar panels being located at the interface of Ardmore Airport (Document 23).

The Aviation Safety Report (Document 19) outlines the regulatory requirements and guidelines, including the planning framework, regarding aircraft safety in Section 4 of the report. The planning controls are contained within the AUP, particularly Designation 200 and the Aircraft Noise Overlay.

The Civil Aviation Authority (CAA) establishes and maintains the rules that all pilots, engineers, aircraft operators, airlines and aerodromes must follow. The CAA publishes a series of Advisory Circulars which provide guidance on acceptable means of compliance with various aspects of the Civil Aviation Rules.

The New Zealand Airports Association, of which Ardmore Airport Limited is a member, is a national industry voice for airports who rely on the Australian National Airports Safeguarding Framework (NSAF) in the absence of a New Zealand equivalent for guidance on the preparation of airport master planning.

The following matters are identified within the report as key considerations:

a) Protecting operational airspace and preventing obstacles (both permanent and temporary) through the use of height limits, and restricting land-uses and building locations.
b) Restricting the location and size of buildings to minimise windshear and turbulence.
c) Controlling land-use activities to minimise wildlife hazards, e.g. ecological areas within flightpaths, which attract birds.
d) Public safety zones within flight paths and extending from runways by restricting land-uses e.g. no people generating activities.
e) Lighting and glare being restricted within flightpaths and adjacent to runways which may distract pilots.

Careful consideration has therefore been given to the design response of Sunfield, and the interface with Ardmore Airport to avoid reverse sensitivity issues. Whilst there is an overlap, these can be categorised broadly into three themes being, noise, land-use activities, and building scale including location and detailing.

7.13.1 Noise

As part of this application an Acoustic Report prepared by Styles Group is provided (Document 29). This report has been peer reviewed by Hegley Acoustic Consultants (Document 30).

Chapter D24 – Aircraft Noise Overlay outlines that mechanical ventilation and appropriate acoustic treatment needs to be applied to buildings within the noise overlay, particularly between the 55 dB Ldn and 65 dB Ldn contours. This forms part of the proposal and given this is a 'new-build' it will be easier to ensure the internal amenity is achieved through ventilation, heat pumps, and glazing, as opposed to retrofitting older housing stock. The adjoining existing urban development to the west and north-west of the Sunfield

site has been constructed and is operational. This represents a density similar to that proposed at Sunfield and is also within the Ardmore Airport noise control contour. As the development is existing and residential development is provided for within its operative Mixed Housing Suburban zone, it is considered to be an appropriate baseline from which to consider the proposed urbanisation of Sunfield.

Land-Use Response

The activities have largely been distributed in line with the respective noise overlays, as outlined below:

Activities Inside *the 65 dB Ldn contour*

Employment and commercial activities will be located in this area. Given the noise contours and matters regarding aviation safety i.e. height and location of buildings, activities within this area will be at grade industrial type activities or typical-rise industrial buildings which generate low human activity e.g. warehousing. This will therefore mitigate impacts of noise and potential safety issues from take-off and landing. Activities Sensitive to Aircraft Noise and visitor accommodation activities are prohibited in this contour.

Activities between the *60 dB Ldn and 65 dB Ldn* contours

This area will be occupied by activities which generally have an inside building focus, such as the Town Centre (retail and services), Healthcare with no overnight stay (people seeking medical advice and employees), and the Local Hub (retail and services). Open Space in the form of active recreation will also be located in this area. Whilst this is an outside activity, aircraft noise is not considered to create adverse effects given the non-passive nature of the activity i.e. people won't occupy this area to seek peace and quiet. Acoustic insulation and mechanical ventilation requirements proposed as part of the application for activities sensitive to aircraft noise and visitor accommodation, will ensure good levels of amenity for future occupants.

Activities between the *55 dB Ldn and 60 dB Ldn* contours

Activities within this area will largely to be occupied by residential activities and aged care facilities, which has a larger inside focus given the older population occupying these buildings. It is also envisaged that for the Town Centre and Local Hubs the outdoor activities e.g. cafes/restaurants and playgrounds, can be located within this noise overlay control area. Acoustic insulation and mechanical ventilation requirements proposed as part of the application for activities sensitive to aircraft noise and visitor accommodation, will

ensure good levels of amenity for future occupants. The proposed residential development density is similar to that already existing on the opposite side of Cosgrave Road, as illustrated by **Figure 43** below, and is therefore also considered appropriate on the application site. This illustrates a density of 34.1 dwellings per hectare in the 55dB Ldn contour, with the residential density for Sunfield within 55dB Ldn contour being 29 dwellings per hectare (2214 dwellings with 76.3 hectares).

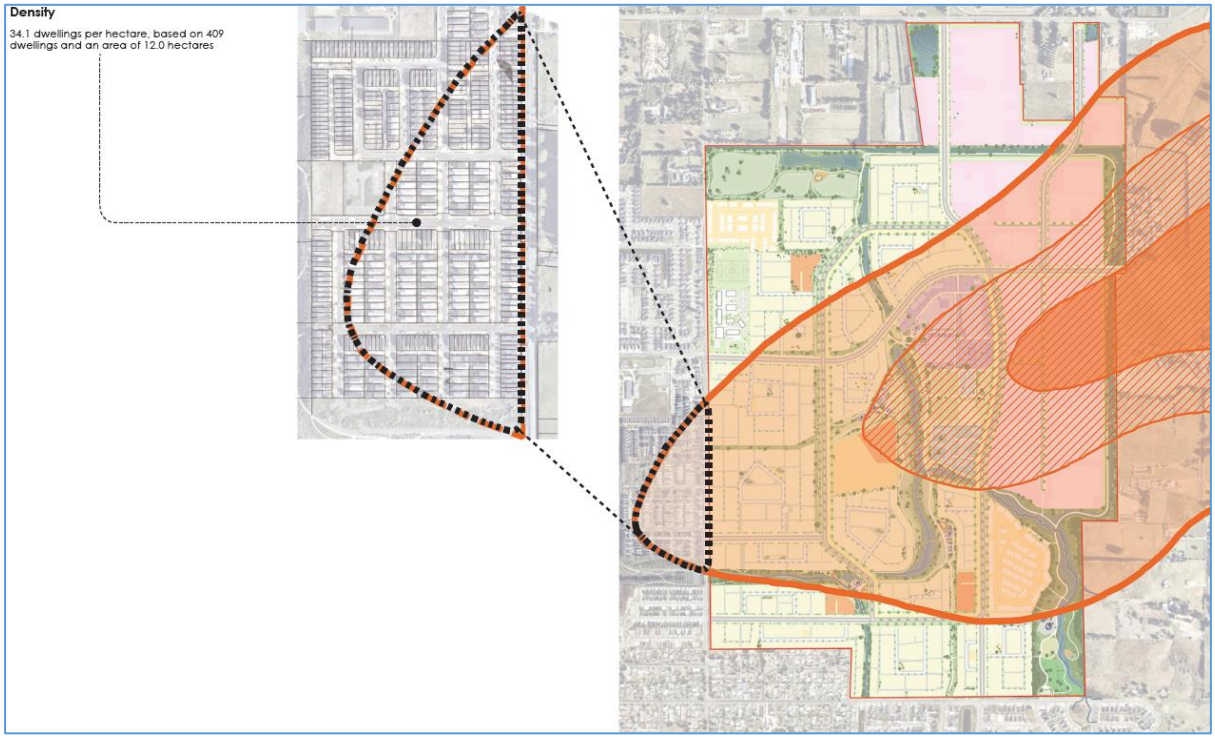

Figure 43: Residential density within the 55dB contour in adjacent area to the west *(Source: Winton)*

Activities outside the *55 dB Ldn* contour

This area will be occupied mainly by residential activities, but this area also includes the education facility in the north-western portion of the site, as well as two significant open space areas for passive recreation in the north-west and south-east.

Land-Use Commentary

Based on the land-use pattern the following points are noted:

- Large areas of open space are located outside of the 55Ldn contour to the north-west and south-east providing for passive recreation and allowing people to enjoy the outdoors.

- No complaints covenants regarding aircraft noise are proposed to be placed on all titles within the Sunfield development.

- A covenant ensuring that any acoustic insulation or mechanical ventilation measures used to mitigate aircraft noise are not to be removed at any time in the future without approval from the Ardmore Airport's operators.

- The level of density and standards envisaged for the residential area is anticipated to be similar to the current Mixed Housing Urban zone within the Unitary Plan. With this in mind, it is noted that:

    a) Ardmore Airport generally operates during the daytime with other airports, in particular Auckland International Airport, operating both during the day and night. There are a number of controls within the Ardmore designation controlling flight hours, aircraft movements, and general sound emissions, reducing the impact on neighbouring properties.

    b) The noise contours and provisions for the Auckland International Airport (whilst being slightly different to the Ardmore contours) have residential zones within the high-aircraft noise areas and moderate noise areas indicating that finding an appropriate balance is achievable.

Summary

Mitigation of reverse sensitivity effects resulting from aircraft noise will therefore occur in a variety of ways, including:

- ensuring an appropriate indoor environment;
- location of particular land-use activity types inside and outside noisy areas;
- providing appropriate outdoor spaces/activities within quieter parts of a development, and having activities which generate people located outside of the noisy areas:
- Use of no complaint covenants.

A detailed suite of conditions have been proposed by Styles Group and these have been included in the proposed set of conditions submitted with this application. They include activity restrictions, requirements for acoustic insulation and mechanical ventilation and a covenant on the records of title to ensure that no mitigation measures can be subsequently removed.

Therefore, based on the above assessment and the proposed land-use pattern and design response as part of the proposal, it is considered that reverse sensitivity noise effects can be appropriate mitigated.

7.13.2 Proximity of Land Use Activities for Safety

The land-use activities within the flight path and adjacent to the runway have been restricted in order to ensure there are no people or wildlife generating activities, which will mitigate potential safety issues.

Wildlife Hazards

Wildlife hazards at airports, particularly bird strikes, are a safety consideration noting Sunfield proposes 25.6ha of open space, green links and reserves. The CAA has rules regarding wildlife hazard management (Aviation Rule 139.71) with Advisory Circular AC139-16 outlining acceptable means of compliance. The Aviation Safety Report outlines:

''Recreational activities' described as 'Grounds' is included as a potentially hazardous land use due to the high risk of food waste being left at sites. These have the potential to generate feeding grounds and cause birds to fly across the aerodrome or flight path from their roosting site, using the aerodrome as a resting place."[47]

Designation 200 also controls proposals within the 'Protection Areas', including the possibility of attracting birds to the area and the safety of aircraft operations. **Figure 44** illustrates this 'Protection Area'.

[47] Aviation Safety Report dated February 2025, Document 19, Section 5.3.1 Page 18

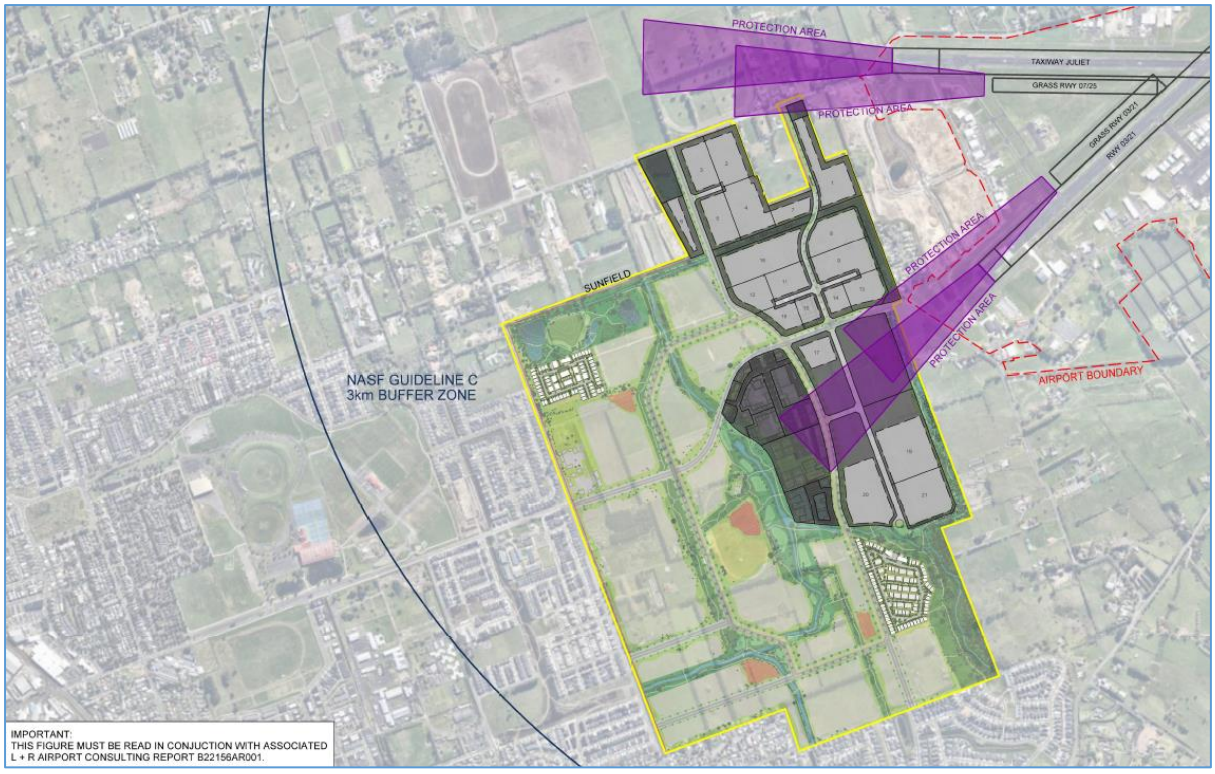

Figure 44: Wildlife Hazards *(Source: Aviation Safety Report – Figure B22156/06)*

The Sunfield proposal includes open space areas, with a stormwater conveyance channel. These areas have the potential to attract birdlife. The Aviation Safety Report notes that the NASF guidelines have monitoring considerations to mitigate effects:

'NASF Guideline C recommends the proposal should be submitted to the airport operator and agreed steps for monitoring and/or mitigation should be put in place. Action plans for monitoring could include:

– Regular monitoring surveys;
– Wildlife hazard assessments by qualified ornithologists or biologists;
– Wildlife awareness and management training for relevant staff;
– Establishment of bird population triggers;
– Implementation of activities to reduce hazardous bird populations; and
– Adoption of wildlife deterrent technologies to reduce hazardous bird populations.

Risk mitigation measures that should be considered include: – A requirement for a Wildlife Management Program;

– The establishment of wildlife management performance standards;

– Allowance for change to design and/or operating procedures at places/plants where land use has been identified as increasing the risk of wildlife strike to aircraft;

– Establishment of appropriate habitat management at incompatible land uses;

– Authority for airport operators to inspect and monitor properties close to airports where wildlife hazards have been identified; and

– Consistent and effective reporting of wildlife events in line with the relevant transport safety guidelines.'[48]

It is proposed to include an adaptive wildlife monitoring plan, in line with the above requirements, as a condition of consent.

People Generating Activities

The 'Protection Areas' of Designation 200 illustrated in **Figures 45 and 46** below identify Yard 1 and 2 which extend 900m from the runways. These areas restrict a variety of activities given low altitude flying, including land use activity, recognising the relatively greater risk of aircraft accident in these areas.

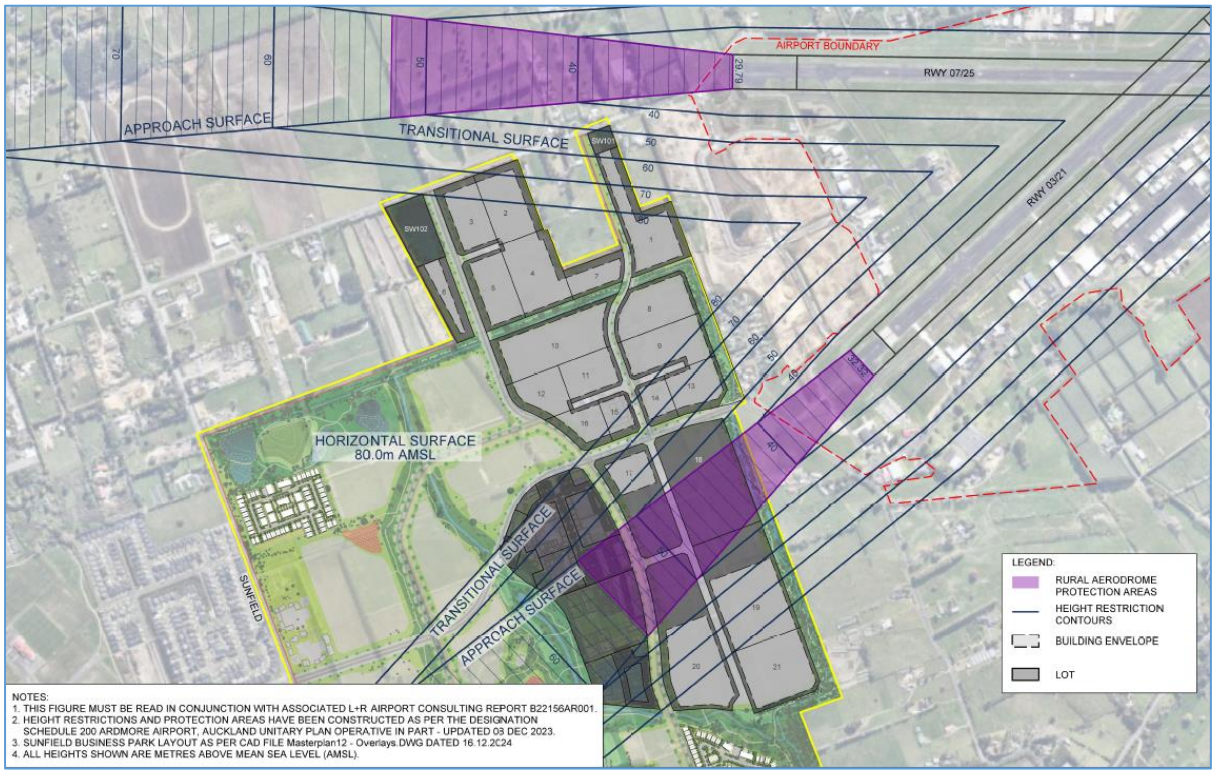

Figure 45: Height Restriction and Protection Areas – Sealed Runways *(Source: Aviation Safety Report – Figure B22156/02)*

[48] Aviation Safety Report dated February 2025, Document 19, Section 5.3.3 Page 19

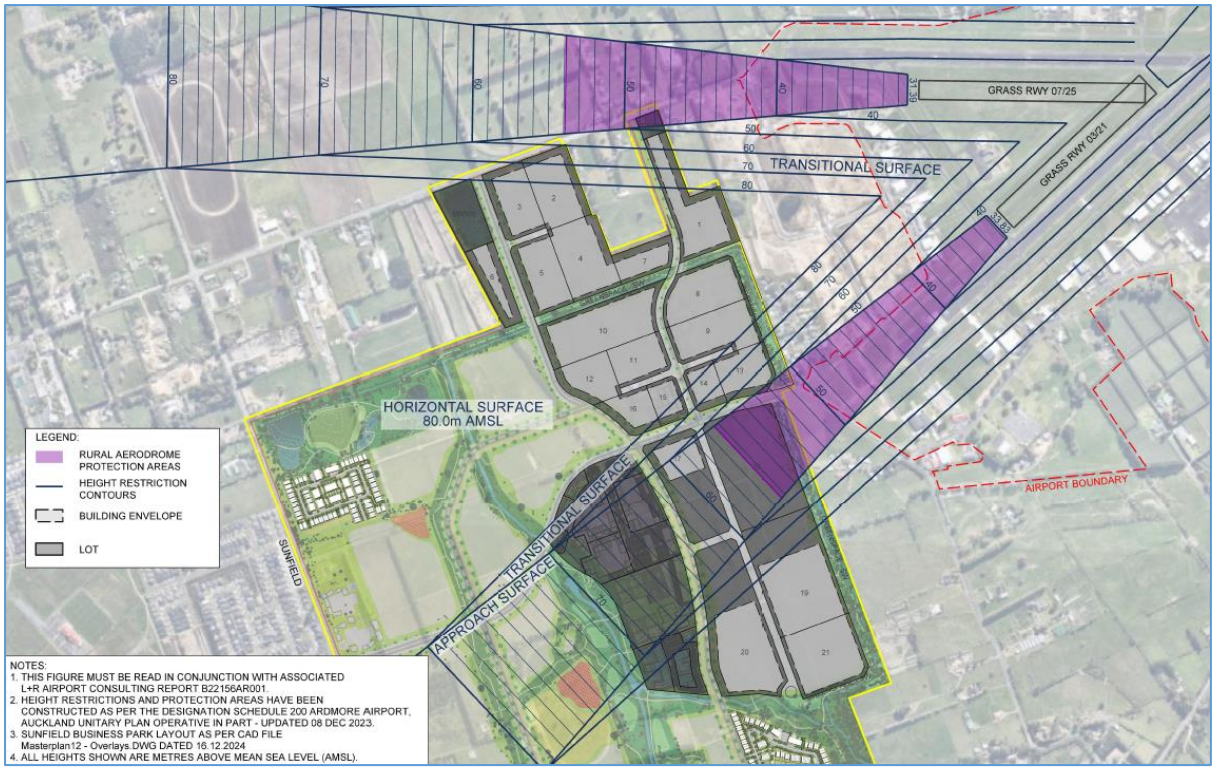

Figure 46: Height Restriction and Protection Areas – Grass Runways *(Source: Aviation Safety Report – Figure B22156/03)*

Sunfield has reflected these controls and ensures that at grade activities occur within these areas, being primarily 'yard' activities associated with industrial activities within the Employment Precinct, with limited people generating activities.

Whilst being less critical than the proposed land-use response within Sunfield, it is also noted that the aircraft movements from Ardmore Airport, both in numbers and aircraft type, are relatively limited, ultimately reducing the risk. Recognising that the guidance and regulation in this area is limited, with UK and Queensland approaches used as a guide, the Aviation Safety report outlines:

'The exact nature of aircraft movements at Ardmore Airport, in terms of aircraft type, operation and runway use is not known, which makes any clarification of individual risk levels difficult. However, in both the Queensland PSA model and the current UK PSZ policy, PSAs/PSZs (Public Safety Area / Public Safety Zones) *are not considered necessary for runways with less than 10,000 movements (excluding light aircraft), for Queensland, or 18,000 commercial air transport movements for the UK.'*[49]

The Aviation Safety Report goes on to state that Ardmore Airport, between 2012 and 2021, approximately 3,200 IFR (Instrument Flight Rules) movements per year, and the movement levels are well below the

[49] Aviation Safety Report dated February 2025, Document 19, Section 5.4.5 Page 23

thresholds that would trigger the implementation of public safety land use restrictions under the Queensland or the UK airport public safety policies.

7.13.3 Building Scale and Design

Building Height

In order to provide context for the heights of buildings and compliance with Designation 200, the Aviation Safety Report outlines that:

'The AUP Designation Schedule 200 Ardmore Airport – Conditions and Restrictions provide requirements for the Airport Authority consent where the relevant height control is exceeded.

The Sunfield Business Park buildings are assessed at a maximum elevation of 52 metres AMSL inclusive of all rooftop plant, equipment and other protuberances such as access ladders, antennae etc, based on a building 20 metres high and ground elevation estimated at 32 metres AMSL.' [50]

Figures 45 and 46 above identify Yard 1 and 2 from within Designation 200 (purple shading) for 'Protection Areas' for the sealed and grass runways. Any plant, equipment or material stored in these areas higher than 4 metres above ground level needs the approval of Ardmore Airport Limited. This control is considered to be the area where building restrictions are essential, as aircraft pass over this area at low altitudes.

Given the height restrictions outlined within these areas, the proposal reflects these controls and ensures that at grade activities will occur within these areas with limited structures, being primarily 'yard' activities associated with industrial activities within the employment precinct.

Designation 200 also has a 'Height Restriction' requirement for both the sealed and grass runways. The Aviation Safety Report outlines that buildings at a maximum elevation of 52 metres AMSL (i.e. at a height of 20 metres) would comply with this requirement, notwithstanding the 'Protection Area' requirement. In recognition of this, it is proposed to have buildings comply with this requirement, which is outlined within the Aviation Safety Report.[51] As outlined within the Employment Precinct Design Controls, the proposed buildings in the precinct are to have a maximum height of 20m.

[50] Aviation Safety Report dated February 2025, Document 19, Section 5.1 Page 13
[51] Aviation Safety Report dated February 2025, Document 19, Section 5.1.2.1, Table 2, Page 13 and Section 5.1.2.2

Windshear and Turbulence

NASF Guideline B assists airport operators and land-use planners to reduce the risk of building generated windshear and turbulence. The guidelines outline criteria regarding the location of buildings which would need further assessment, being:

- 1,200 m or closer perpendicular to the runway centreline;
- 900 m or closer in front of the runway threshold; and
- 500 m or closer from the runway threshold along the runway.

Within these areas, a height multiplier is used to determine building heights and whether detailed assessments are required regarding turbulence. The Aviation Safety Report outlines this in further detail at section 5.2 and in relation to **Figure 47** below notes:

'The proposed buildings identified with light blue shaded area would require further assessment by a qualified wind engineer or other suitably qualified wind professional in accordance with NASF Guideline B.'[52]

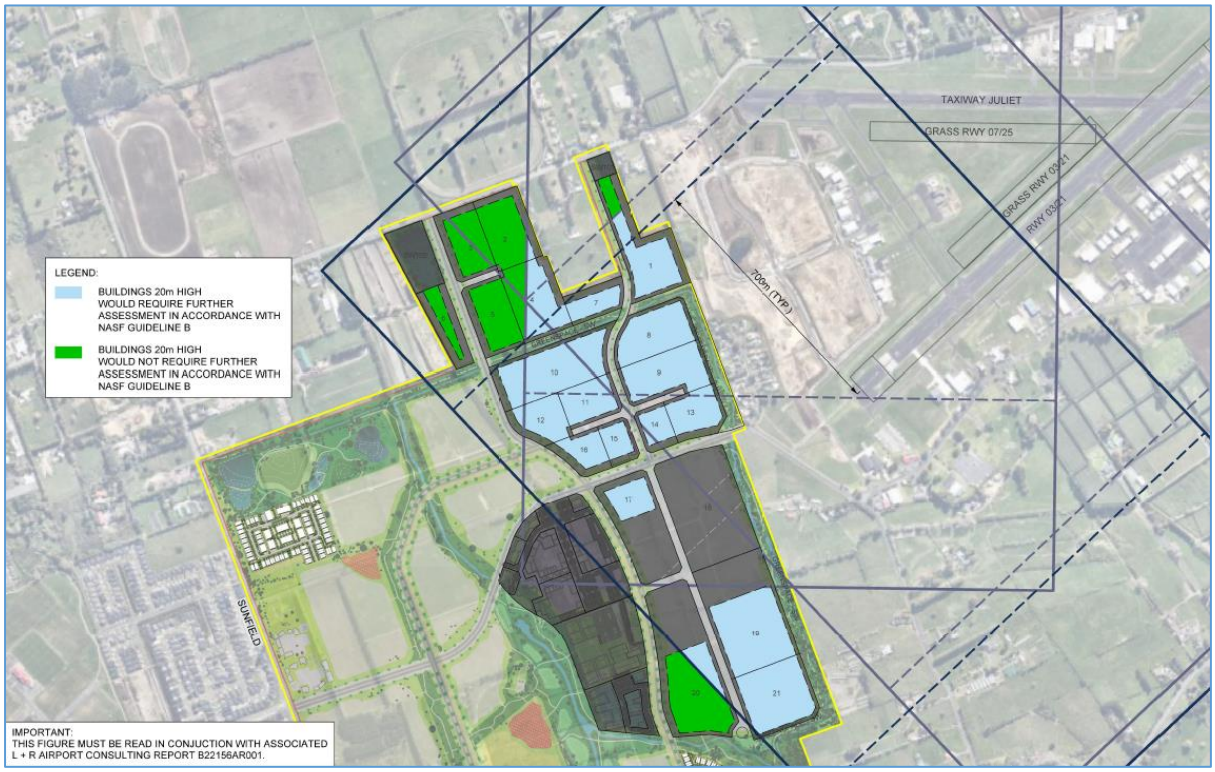

Figure 47: Building Generated Windshear and Turbulence – NASF Guideline 3 *(Source: Aviation Safety Report – Figure B22156/05)*

[52] Aviation Safety Report dated February 2025, Document 19, Section 5.2 Page 18

Whilst the current guidelines are a non-RMA tool, windshear and turbulence will be considered at the detailed design stage in line with NASF Guideline 3.

Air Discharges – Turbulence

Plume rise from the emissions of steam or other gases, smoke, dust or other particulate matter needs to be controlled to ensure air turbulence is not caused. Therefore, land-use activities within the employment precinct will need to consider any roof top plant for industrial activities and associated air discharges. A proposed condition is recommended to manage and mitigate any potential adverse effects associated with turbulence from air discharges.

Lighting and Glare

Lighting and glare is controlled within Designation 200 through the 'Protection Areas' as per **Figures 45 and 46**.

The NASF Guideline E also provides guidance where lights are to be installed within a 6km radius. **Figure 48** below illustrates the requirements which are outlined in the Aviation Safety Report.

'Under Guideline E lighting associated with developments should meet the allowable intensity of light sources measured at 3 degrees above the horizontal restrictions associated with the respective zone as follows:

- *Zone A does not allow for any (0 cd);*
- *Zone B allows for 50 cd;*
- *Zone C allows for 150 cd; and*
- *Zone D allows for 450 cd.'*[53]

[53] Aviation Safety Report dated February 2025, Document 19, Section 5.5.3 Page 24

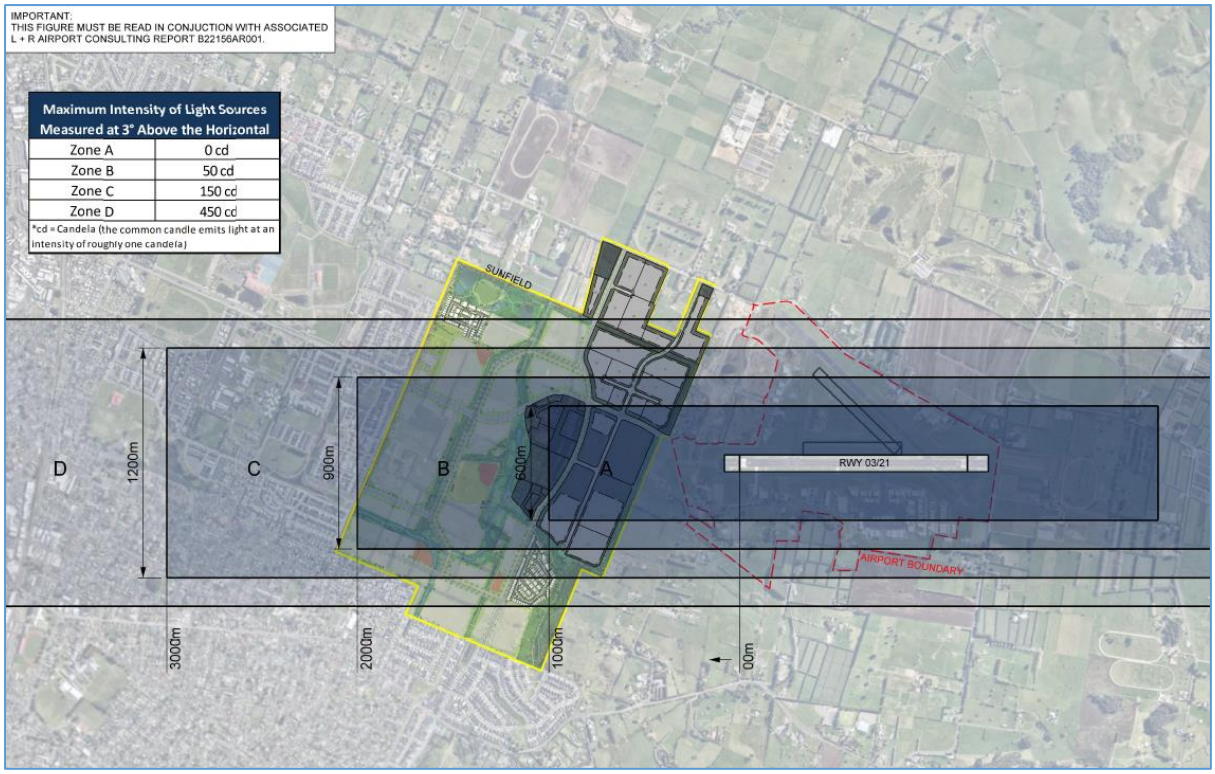

Figure 48: Maximum Lighting Intensity Zones *(Source: Aviation Safety Report – Figure B22156/07)*

The key consideration at the detailed design phase will be glare from solar panels, recognising the 'Low Impact and Sustainable' design principle of Sunfield and the use of clean energy. The lighting design will also need to ensure that glare does not result from the lighting, and confusion for pilots is avoided when approaching the runway e.g. neighbouring roads.

A Lighting and Glare Analysis has been provided by Ibex Lighting (Document 22) regarding all new lighting associated with Sunfield. The analysis outlines the lighting specifications for roads and the development of buildings, compared to those in NASAF Guideline E, and concludes:

'The combination of the Luminaire optical performance and the design requirements outlined above will ensure that the Control Areas A to D within NASF Guideline E can be easily achieved for the street lighting design associated with the proposed Sunfield Development.

Auckland Transport's requirements are reference to zero degrees to the horizontal for the Luminaire tilt used in the design submission whereas compliance with the NASF Guideline E is referenced to 3 degrees above the horizontal. The industry leading Luminaire specification employed by Auckland Transport provides a degree of Glare Control above that of the NASF Guideline E.

Application of these same performance and design requirements to the private exterior lighting associated with the buildings within the Sunfield Development area will also ensure that the NASF Guideline E will be met.'[54]

A letter from Lightforce Solar regarding solar panels being located at the interface of Ardmore Airport (Document 23). This letter outlines:

'The key mitigation strategies for glare on airport installations are as follows:

- *Prior glare analysis for the proposed location of the photovoltaic (PV) system in airport areas.*
- *Application of antireflective coatings and/or texturing of the protective glass surface.*
- *Appropriate the siting and design of an airport-based solar PV system.*
- *Install PV modules away from the final threshold approach path and ATCT* (Airport Traffic Control Tower).*'*

It is therefore considered that lighting and glare effects on Ardmore Airport associated with the Sunfield proposal will be appropriately mitigated through the location and design parameters of lighting and solar panel fittings. A condition of consent is proposed in order to ensure the final design of such fittings is appropriate prior to installation.

Summary

Given the proximity of Ardmore Airport to the east of Sunfield, the design response has been carefully considered to ensure noise, reverse sensitivity, and public safety effects are mitigated. This can be achieved predominantly through the appropriate location of land-use activities, as well as building heights and locations. Conditions have also been proposed to ensure these effects are appropriately mitigated, including a wildlife management plan, compliance with height controls, and air discharge and lighting requirements.

7.14 Reverse Sensitivity – Rural Areas Adjoining Urban Area

Given the proximity of existing rural land to east of the proposed urban land, there is the potential for reverse sensitivity effects to occur, and occupiers of the urban land being impacted by rural activities such as machinery noise, spraying of vegetation, and stock control.

[54] Lighting and Glare Analysis dated 25th January 2025, Document 22, Section 5, Page 5

These effects, however, are considered to be appropriately mitigated given the areas adjoining the existing rural areas are either open space greenways, or employment activities.

The adjoining open space activities include:

- the 10.4ha Wai Mauri Stream Park located in the south-eastern corner of Sunfield;
- the 9.5ha Wetland Park located in the north-western corner of Sunfield;
- the northern and eastern greenway, which have width of approximately 38m, extending to 73m in the northern portion of the eastern greenway.

These open spaces therefore provide an appropriate transition and buffer to the urban land, with planting and landscaping adjacent the stormwater channel and a 3m wide shared pedestrian and cycle path.

The employment precinct is located beyond the northern and western greenways, which will generally include industrial activities which have a lower amenity expectation than that of residential activities regarding noise, odour and the timing of such rural activities.

It is therefore considered that the reverse sensitivity effects on the rural/urban boundary can be appropriately managed given the design and activity layout of the Sunfield proposal.

7.15 Gas Line (Designation)

A designation (number 9104) by First Gas Limited crosses the site in a north / south direction, as outlined in Figure 49 below. This designation essentially protects the main gas supply from Taranaki to Auckland and to the north.

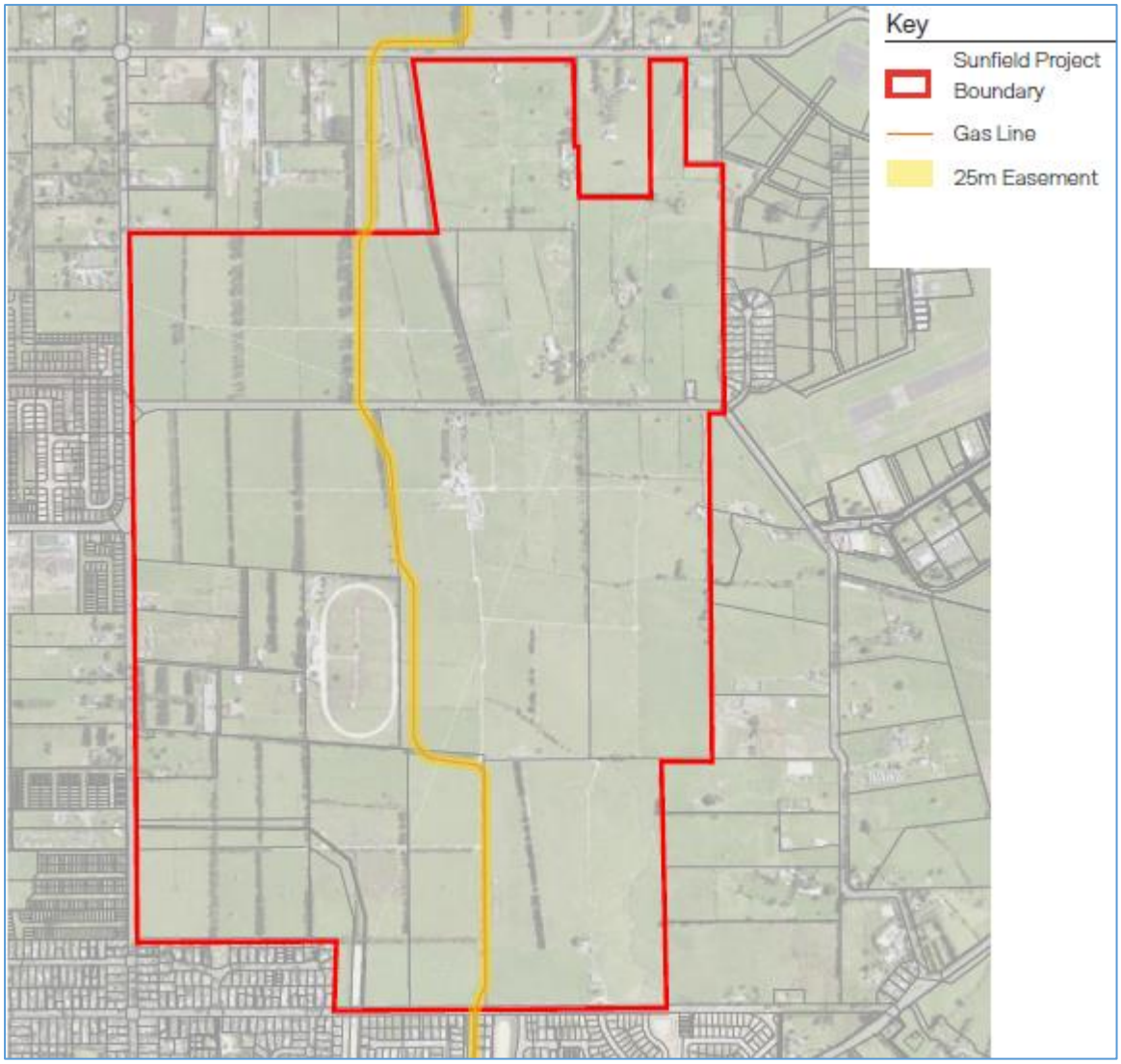

Figure 49: Gas Transmission Pipeline Designation *(Source: Masterplan)*

The purpose of the designation is outlined as follows:

'a. The operation, maintenance, upgrade and renewal of the existing 350mm diameter gas transmission pipeline and all ancillary structures and activities associated with these works for transportation of natural gas; and

b. The design, construction, operation, maintenance and renewal of a new pipeline generally alongside the existing pipeline and all ancillary structures and activities associated with these works for transportation of natural gas.'

The designation has a number of conditions and restrictions, which primarily relate to the construction phase of the pipeline. The designation width is 25 metres, which is in turn protected through section 176(b)

and the need to obtain the written approval of the Requiring Authority to do anything in relation to the land which may hinder the public work or project.

It is noted that the conditions also provide for the designation to be reduced in width, three months following completion providing easements are placed on Certificates of Title. This width varies but generally sits at 12 metres, which appears not to have been implemented given the pipeline has been constructed.

In any event, given the critical nature of this infrastructure, it is not proposed to undertake the construction of any buildings within the 25-metre corridor, noting that the open space network includes the gas pipeline location to minimise any impacts on the designation.

It is recognised that urban development to the south of Sunfield and Old Wairoa Road has occurred in the recent past, and is of an urban nature. This urban area has successfully navigated the requirement and necessity to accommodate and the First Gas Limited designation and pipeline. This is illustrated in **Figure 50**. It is therefore anticipated that a change to an urban land use can occur safely through appropriate design and buffers, as is the case with Sunfield.

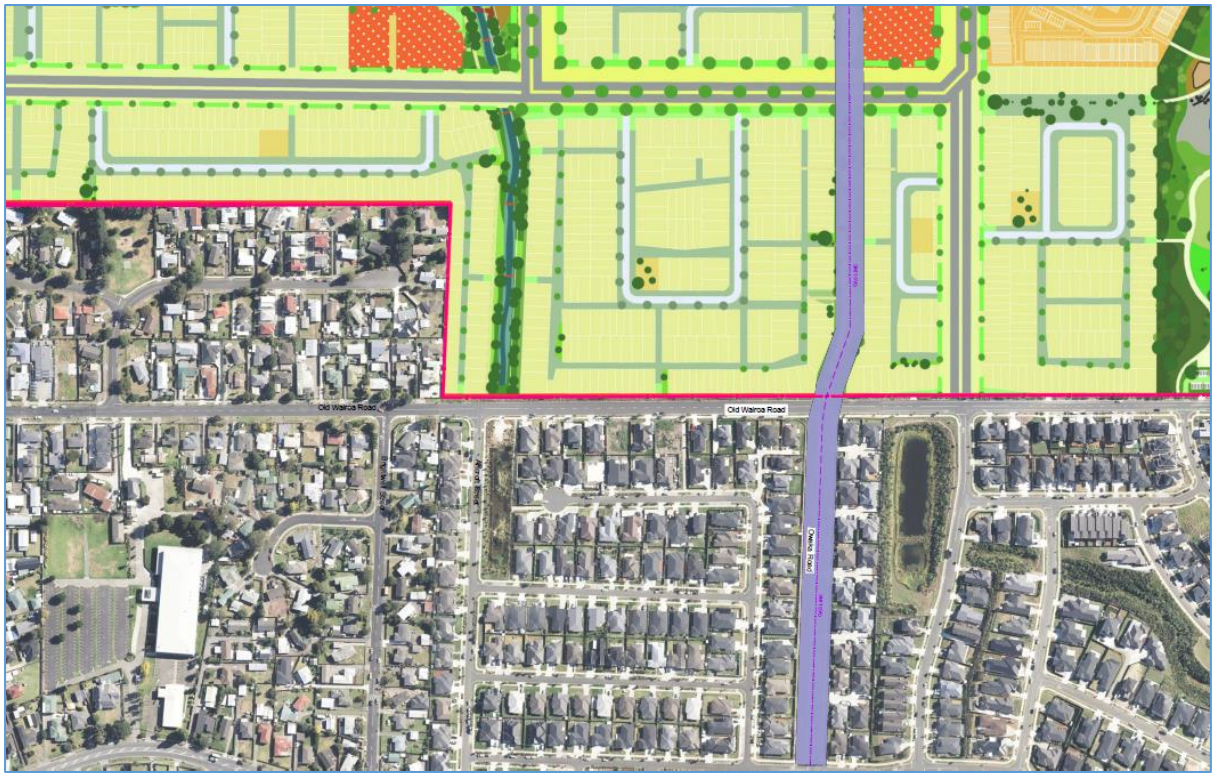

Figure 50: Recent subdivision south of Old Wairoa Road and the Gas Line location (purple area) *(Source: Winton)*

Engagement with First Gas Limited has been undertaken, to ensure there is a good level of understanding of the Sunfield proposal. A letter from First Gas Limited (Document 41) is provided within the application,

which outlines the level and nature of the engagement, with First Gas Limited recently instigating the initial stages of a Safety Management Study to better understand the impacts of any change in land-use.

7.16 Geotechnical

A Geotechnical Report undertaken by Land Development and Engineering (LDE) has been submitted with this application and is attached as Document 24.

Section 1 of the report provides a summary table of the principal geotechnical issues and design considerations and is repeated below for ease of reference:

Geotechnical Consideration	Summary Advice
Ground Conditions	The site is underlain by extensive soft to firm organic PEAT soils and soft CLAY deposits generally in the western part of the site with variable depths of inorganic / organic stained crust up to 2.2m thick, although generally less than 1m thick. Isolated PEAT soils are also located along the eastern boundary adjacent to Ardmore Airport. The eastern part of the study area is generally defined by silty CLAY and clayey SILT deposits underlain by East Coast Bays Formation (ECBF) bedrock at depths of between 3.7m and 19.4m. For the purposes of site classification, the above soil groups (types) are referred to collectively as **Zone 1 (peats)** and **Zone 2 (inorganic clays)** respectively throughout this report – refer Figure 2.1.
Groundwater	Groundwater levels were recorded in piezometers on 30 April 2021, 30 July 2021, 27 October 2021, 17 January 2022, and 9 February 2023 at depths of between 0.20m and 7.17m below existing ground levels, although most locations recorded groundwater depths between 1.0m and 3m. This is considered to be generally representative of a year round seasonal groundwater regime, with the February 2023 groundwater readings being undertaken during a historic high rainfall period in Auckland, however these show no significant deviations from the established trends.
Percolation	Falling head percolation testing has determined that minimum percolation rates of between 0.0743 L/m2/min in Zone 2 soils and 0.01 L/m2/min in Zone 1 soils. It is paramount to minimise widespread consolidation settlements post development that groundwater levels are maintained in Zone 1 soils through recharge of stormwater runoff via soakage pits and/or swales.

Slope Stability	Slope stability of the proposed 1(v) in 4(h) stormwater channel has been analysed and is considered satisfactory. Precedence has also been set by the recently constructed Takanini Stormwater Conveyance Channel, which is a larger system. Similarly, natural or proposed slopes elsewhere on the site will not exceed 1(v) in 4(h) and computer slope stability analysis is not usually warranted in this case.
Consolidation Settlements	Ground improvements to address consolidation settlements in Zone 1 soils will generally comprise ground improvements involving undercutting beneath building footprints and reinstatement with compacted hardfill or sand and/or preloading. Precedence has typically been set in the Takanini / Ardmore for these types of ground improvements in many significant subdivisions just to the west of Cosgrave Road.
Drawdown Settlements	Drawdown settlements are likely limited to the proposed stormwater channel which will incise below the surface of the surrounding (prevailing) topography.
Liquefaction	Most Zone 1 soils have been determined to be susceptible to liquefaction, especially where limited or no stiff crust is present. This is due to cyclic softening of the soft cohesive materials rather than dramatic 'sand boils' or lateral spreading. Ground improvements to address liquefaction can be addressed by the same ground improvements required for consolidation settlement (i.e. pre-loading and raft foundation design for buildings). Liquefaction induced total settlements should be considered in the subdivision design levels with regard to overland flow paths and floodplains, in order to maintain 'free board' following such an event. However, consolidation settlements from imposed earthworks and building loads is by far the greatest geotechnical engineering issue for consideration here.
Foundations	Foundations within Zone 1 areas for NZS3604 one to two storey light weight timber frame construction, heavier two storey, terraced (i.e. conjoined dwellings) or three storey dwellings will likely require some degree of ground improvement and stiffened raft foundations as outlined in Section 7.3, in conjunction with preloading. Buildings exceeding these loadings / storeys will likely be subject to piled foundations. Subject to further investigations, foundations in Zone 2 should be suitable for standard NZS 3604-type (i.e. lightweight) construction up to three storeys utilising strip and pad footings designed in accordance with AS 2870 and related documents. For commercial / industrial buildings within Zone 1, the foundation solution will be commensurate on end use and as such will require site specific investigations and foundation design. Examples of specific buildings and ground improvement / foundation solutions are presented in Section 8.1.1.

	For commercial / industrial within Zone 2 more conventional shallow foundations solutions are possible dependent on end-use, however, these types of buildings will generally require site specific investigation and foundation design. A summary table of preloading and/or localised ground improvement requirements and specific foundation design criteria is presented in Table 6.2 (Appendix 6.1).
Expansive Soils	Likely MBIE and/ or AS2870:2011 expansive site class classification for the finished subdivision is likely to fall within Classes M to H. Further assessments involving laboratory shrink-swell testing in accordance with MBIE guidelines should be completed at subdivision stage, provided undisturbed samples can be successfully obtained and tested in the peats (our understanding is that this is virtually impossible in type S1a geology).
Non-engineered Fills	An area of non-engineered fill has been identified in the south-eastern portion of the site. This material will need to be undercut and reinstated or ground improvement completed within proposed dwelling, infrastructure or roading areas subject to future master planning. There may be other areas of non-engineered fill and further comprehensive geotechnical site investigations during the subsequent Resource Consent stage(s) should minimise the risk of unforeseen areas of non-engineered fills in this regard.
Earthworks and Civil Works	Within Zone 1 areas, ground improvements will be required to mitigate settlements resulting from the proposed earthworks and building loads, which may include undercut and replacement, preloading and/or lagperiods following earthworks to allow settlements to attenuate. Earthworks in these areas require the use of track-rolled peat materials which are not covered by normal subdivisional compaction specifications. Within Zone 2, the cut materials should be suitable for re-use in other Zone 2 areas as certified clay fills which will need to be compacted to standard subdivisional compaction specifications. However, some degree of conditioning will likely be required to achieve suitable moisture contents for maximum compaction. Within the flatter Zone 2 areas (Stratum S2a), saturated and/or pumiceous soils can often be sensitive to disturbance (via pumping and weaving under earthwork plant). If/where this is encountered, undercutting and replacement of the affected soils will likely by necessary.
Pipes and Buried Services in Peat Soils	Public service lines excavated in Zone 1 peat soils face a high risk of settlement of the pipes and redundancy should be built into the service design, such as oversizing pipeline internal diameters, careful consideration in selection of trench backfill

	materials, seepage cut off collars at regular intervals to prevent the pipe bedding media acting as a groundwater drawdown drain, increased bedding thicknesses, etc. Service lines will also need to be designed to withstand long-term corrosion and specialist advice will need to sought in this regard.
Roading	Within Zone 1 areas, road subgrades will require subgrade improvement due to the peats / weak crustal deposits. Precedence has been set in the Takanini / Ardmore area for 500mm to 900mm undercuts reinstated with 'black sand' laid upon geotextile cloth, whereupon targeted beam deflection values have then been achievable. Within Zone 2 areas, likely minimum CBR's of between 2% and 4% should be available for pavement design purposes, and a more conventional approach to pavement construction should be available.

Table 5: Geotechnical Summary *(Source: Geotechnical Report, prepared by LDE)*

The geotechnical report goes on to conclude[55]:

'Overall, the landholding is considered suitable for urban intensification as has been done on other topographically large land holdings to the west in similar geologies, and we therefore support the development proposal.

Further site investigation, and/ or design analyses will be required as part of the development process in due course, commensurate with earthworks plans.'

Based on the attached geotechnical report, the following is noted:

- The key geotechnical consideration, as outlined in the LDE report, is consolidation settlements from imposed earthworks and building loads. Therefore, the building size and scale is a key matter for minimising and mitigating adverse settlement matters. The proposal is for one to two storey light weight timber frame construction, which the geotechnical conditions can cater for and accommodate.

- The Town Centre will be able to accommodate larger buildings in scale and height due to the presence of improved subgrade soils in that location, the large building footprint being able to disperse load over a greater area, and appropriate foundation designs.

[55] LDE Report dated December 6, 2024, Document 24, Section 9.

- Conditions are proposed to ensure the stability of the site is maintained and that a suitably qualified expert oversees excavations.

Based on the analysis contained within the LDE geotechnical report, the size and scale of the proposed buildings, and proposed conditions, it is considered that effects associated with the geotechnical conditions of the land can be appropriated mitigated.

7.17 Earthworks

The details of the proposed earthworks are outlined within the Infrastructure Report (Document 8) prepared by Maven.

7.17.1 Sediment, Erosion and Dust Control

The Infrastructure Report outlines the proposed controls to mitigate any adverse effects associated with erosion and sediment, including:

'Erosion Controls

The site is relatively flat and due to the site contained peat soils, erosion control is limited to diversion bunds to stop rainwater entering/ leaving the site. The bunds allow for the localized ponding (impoundment) of rainwater on the site which can then be managed by pumping or directing to treatment devices as required. The impounded rainfall will also recharge the peat soils to maintain consistent groundwater levels.

***Clean Water Diversion Channels and Bunds**: These measures are used primarily to intercept and convey runoff to stable outlets. Clean water diversions intercept clean water away from the works area. Erosion damage potential is minimised by reducing the volume of water flowing over the site. This also then reduces the potential for sediment generation and the size of sediment-control devices needed.*

***Dirty Water Diversion Channels and Bunds**: Dirty water diversions convey sediment-laden water within the disturbed area and direct it to a sediment-retention device to enable it to be treated or allow localized ponding of rainwater.*

Sediment Controls

***Stabilised Entrance**: A stabilised vehicle entrance will be formed stabilised to minimise potential for sediment to leave the site with construction traffic.*

Progressive Stabilisation*: The site will be progressively stabilised as areas of earthworks are completed. This will be undertaken by hay mulching or grass establishment.*

Sediment Retention Ponds (SRPs)*: Where clay is present on-site, SRPs are proposed as a temporary storage and attenuation device. These devices will chemically treat the sediment laden water and will prevent the site from discharging suspended sediments into the receiving environment. Treated water will be discharged from the SRPs into existing drains and watercourses within the Site.*

Dirty water diversion bunds will direct runoff towards the proposed SRPs.

Decanting Earth Bunds (DEBS): DEBs are a smaller version of an SRP and can be installed quickly and efficiently. They have the same rainfall activated treatment systems as SRPs but the catchment area they can treat is limited in size.

Silt Fences: Silt fences can be used as a barrier to contain runoff flows and trap sediment laden water, these are particularly useful on flat land where runoff is slow.'[56]

The Infrastructure Report goes on to state that a monitoring and maintenance plan will be in place to ensure the effects from the earthworks are mitigated, relating to:

- Diversion drains and clean water cut-off bunds
- Silt Fencing
- Stabilised Vehicle Entrance
- Sediment Retention Ponds
- Dust Controls

Overall, given the relatively flat nature of the subject area, the implementation of the proposed erosion and sediment control measures, and following the proposed conditions of consent, the effects on the receiving environment can be appropriately mitigated from an erosion, sediment and dust control perspective.

7.17.2 Stability

Under section 3.1 of the Infrastructure Report, it states:

[56] Infrastructure Report, Document 8, Section 3.6, Page 13

'Building platform areas will need to be preloaded with approximately 0.5m – 2.25m of material (depending on the underlying soil profile / land use) to consolidate the upper peat layers prior to the commencement of building construction. Full details of preload requirements are provided within the Geotechnical Report Prepared by LDE.

During construction earthworks supervision will be undertaken by a suitably qualified engineer to confirm the geotechnically suitable for the development proposals. A Geotechnical Completion Report (GCR) will be provided at the completion of any stage of earthworks. The GCR will set out the earthworks specification that was achieved and have a record of the management and monitoring of the works as they progressed.

A suitably qualified engineer will issue a statement confirming the standard of any fill placed and any constraints associated with areas of natural ground or slope stability with respect to building foundation design.'[57]

Any new development will need to consider slope stability as part of the specific geotechnical design required for building consent. Overall, the slope stability effects are considered to be appropriately mitigated given the flat nature of the site, and proposed conditions controlling the earthwork methodologies such as progressive stabilisation.

17.7.3 Landform Effects

The main area and volume of earthworks is associated with the stormwater conveyance channels, which are essentially in-ground structures. Overall, the finished ground level at the top of the banks across Sunfield will remain at a similar contour, and be relatively flat.

Earthwork volumes and large cuts will also occur in the south-eastern portion of the site to facilitate residential neighbourhood 5.

The amount of earthworks, and in turn the landform effects associated with the project, are deemed appropriate, recognising the need to create channels to convey the water away from the flood plain with the heights and slopes of the earthworks being critical for this to succeed. The size of the site also necessitates the volume and area of earthworks.

[57] Infrastructure Report, Document 8, Section 3.1, Page 10

The associated planting and landscaping across Sunfield will also help mitigate and soften any landform effects, particularly for the stormwater channels which resemble natural streams with planting in the riparian margins.

Overall, the landform effects associated with the earthworks are therefore considered acceptable.

7.17.4 Summary of Earthworks Effects

The effects associated with the volume and area of earthworks are considered appropriate for a project of this nature and scale. The effects from sediment run-off, erosion and dust can be appropriately mitigated through construction techniques and management plans, which will be monitored on an on-going basis. The stability effects associated with the proposal are considered to be acceptable, and the landform effects are mitigated by the flat land and extensive planting, particularly for the channels resembling a natural stream.

It is also recognised that the earthworks will be split into stages, to maximise efficiency and minimise the risk of environmental issues related to weather events.

Overall, it is considered that the earthworks effects can be appropriately mitigated, subject to the suite of conditions proposed by the applicant.

7.18 Groundwater

A Groundwater Dewatering and Settlement Effects Assessment (Document 25) Groundwater and Settlement Monitoring and Contingency Plan (GSMCP) (Document 26) have been developed by Earthtech Consulting Limited for the purposes of the Awakeri Wetlands Stages 2 and 3 project, which falls within the Sunfield proposal.

The Groundwater Dewatering and Settlement Effects Assessment provides a summary of the groundwater effects, which states[58];

'The Cosgrave Road assessments indicate up to 1.1m of drawdown during construction and 0.6m of drawdown in the long-term, at the outside of the groundwater cut-off walls. With only the 7m deep groundwater cut-off walls providing drawdown mitigation, the analyses show a settlement (primary plus secondary consolidation) of 300mm +/- 50% over a 5yr period following culvert construction, with differential

[58] Earthtech Groundwater Dewatering and Settlement Effects Assessment, Document 25, Section 11, Page 22

settlement steeper than 1v:180h. Additional mitigation in the form of screw piles has been conceptually described as a means to limit settlements effecting the pipeline to 50mm and flatter than 1v:200h (provisional limits, to be confirmed or modified by a pipeline specialist and agreed with Watercare).

The expected groundwater mounding on the northern side of the channel can be capped by the installation of a subsoil drain at the pre-development winter high groundwater elevation. In this area north of the subsoil drain, no drawdown or ground settlement is expected, however the area should still be monitored as part of the GSMCP due to uncertainty associated with the groundwater mounding mechanism.

Further mitigation options are available to ensure that damage can be avoided if settlement effects are larger than predicted.'

Given that the groundwater conditions across the entire Sunfield proposal are generally consistent, with the groundwater effects being associated with the excavation required for the stormwater channel, it is considered the design parameters outlined within these reports can be followed for the entire proposal. Recognising that the proposed conditions have been based on the Groundwater Dewatering and Settlement Effects Assessment, and that appropriate monitoring and contingency measures being followed, as set out in the draft GSMCP, any adverse groundwater dewatering and settlement effects can be appropriately mitigated.

7.19 Contamination

A suite of Preliminary Site Investigation (PSI) reports and Detailed Site Investigation (DSI) reports have been prepared by Focus Environmental Services Limited (Document 32), along with a Contamination Site Management Plan (Document 33).

A summary document has also been provided given the volume of information provided and submitted. This document outlines the potentially contaminating activities or land-uses occurring on the respective sites (Table 2), and the volume of soils requiring remediation for the respective sites. Based on the DSIs and the contamination concentration levels present within the Sunfield development, a global Site Management Plan has been prepared.

The Executive Summary within the Site Management Plan states that the following activities which appear on the Hazardous Activities and Industries List (HAIL), were identified at the sites within Sunfield:

- Horticultural Activities and Pesticide Use;
- Maintenance and Use of Lead-based Paint;

- Demolition of Historic Structures Potentially Containing Asbestos, Products Potentially Containing Asbestos in a Degraded Condition, and Potentially Asbestos Containing Material intermixed with the Site Soils;
- Livestock Dip or Spray Race Operations;
- Bulk Tyre Storage;
- Bulk Storage of Petroleum;
- Bulk Storage of Chemicals;
- Treated Timber;
- Burning of Refuse;
- Potentially Uncertified Filling; and
- Burning of Buildings

Prior to the development of the sites where potentially contaminating land uses and/or activities have taken place and where only a PSI has taken place, a DSI is recommended. The DSI would confirm if the identified land uses and/or activities have affected the site soils and will confirm any remediation requirements for these sites.

The Contamination Summary Document concludes;

'Site-specific Remediation Action Plans (as outlined in Table 1) or a global Site Management Plan (applicable to all sites for which a DSI was unable to be conducted) have been prepared to ensure that the soils contaminated above the adopted site assessment criteria and the materials above the cleanfill criteria are handled, removed, or managed in a controlled manner and/or disposed of to a suitable disposal location.
All earthworks required as part of the remedial works should be carried out in accordance with the prepared plans.

An assessment of the effects which may occur as a result of the proposed works has been made in order to mitigate any potential adverse environmental and/or human health effects. If the controls outlined in the RAP's/SMP are implemented during the development works, it is considered that the effects on the environment and human health will be effectively mitigated.'[59]

[59] Focus Environmental Services Limited Report dated 18 December 2024, Document 32, Page 8

Conditions of consent are also proposed requiring DSIs to be undertaken if not undertaken already, and work being in accordance with the submitted Remediation Action Plans and the global Site Management Plan to ensure management measures are in place to avoid the inappropriate discharge of contaminated materials.

Contamination effects within Sunfield can therefore be appropriately mitigated at the time of development, in line with the suite of reports provided by Focus Environmental Services Limited.

7.20 Archaeology and Heritage

A Preliminary Archaeological Assessment Report prepared by Clough and Associates Limited has been undertaken for Sunfield (Document 27).

The report concludes:

'This assessment has identified existing and potential heritage constraints in the proposed Future Development Area in the form of one recorded archaeological site R11/3435, villa at 80 Hamlin Road. As well, there is potential for unrecorded archaeological sites to be present, with a specific area of interest located in DP 10383 (508 Wairoa Road) within the currently Future Urban Zoned area, where a house and shed are indicated on a 1915 plan. Apart from the two locations identified above, there is also some potential for unrecorded subsurface archaeological remains to be present across the Future Development area.

Although the full effects on archaeological and historic heritage values is not yet known, it is recommended that future development plans should take account of the recorded archaeological site and avoid it if possible. If avoidance is not possible, an authority issued by Heritage NZ would be required if demolition of the villa is proposed and before any modification or destruction of subsurface remains occurs as a result of future development.'[60]

Demolition of the villa at 80 Hamlin Road is proposed, recognising it is situated within the Employment Precinct, and it is therefore challenging to retain such a building which would be out of context within the subject development proposal whilst creating land development inefficiencies. Whilst this building is not a scheduled building under the Auckland Unitary Plan – Operative in Part, an authority issued by Heritage NZ must be obtained, and is not being applied for as part of this regulatory approval.

[60] Clough and Associates Limited Report dated April 2024, Document 27, Page 39

7.21 Sustainability and Greenhouse Gas (GHG) Emissions

A Sustainability and GHG Emissions Assessment (Document 36) and an Enabled Transport Emissions Assessment (Document 37) has been undertaken by Stantec. The Sustainability and GHG Emissions Assessment provides a detailed analysis of the impacts Sunfield will have on GHG emission reductions, both upfront capital emissions during construction/establishment and on-going operational emissions.

A key principle of Sunfield is for it to be a Low Impact and Sustainable development. A number of measures at both the macro and micro scales will be employed at Sunfield to reduce the impact of the development and enable people to lead more sustainable and low-impact lives. The approach to Sunfield has been to not only minimise its environmental impact and the risks associated with climate change but to incorporate the adaption to climate change into the design of the Concept Masterplan and to create positive environmental outcomes. These measures include:

- The Sunfield Concept Masterplan demonstrates a key concept of co-locating housing, core commercial servicing, retail and professional services offices and employment areas. Sunfield is not an extensive 'housing only' project – it is a masterplanned community. It provides for 460,000 sqm of employment, retail, healthcare and education buildings, a 7.6-hectare town centre, a school, 3 retirement villages consisting of approximately 600 independent living units and care beds, and 27.7 hectares of open spaces, green links, recreation parks and reserves and opportunities for ecological restoration and enhancement. Sunfield enables the core needs of the community to be dealt with, within the area of the development. The Sunfield concept Masterplan provides a clear framework that will enable a dramatic reduction in car dependence which will promote healthier transport options and minimise greenhouse gas emissions.

  In this regard the Sustainability and GHG Emissions Assessment outlines:

  'Sunfield will facilitate and encourage active and public transport, community connectedness, connection to nature and a modal shift away from private vehicle reliance, while prioritising integrated nature-based solutions and community resilience. Sunfield's masterplan is designed to minimise reliance on private vehicles, with only 10% of residential dwellings allocated a car park (340 in total) and an additional 10% (340 car parks) provided within the retail hub. With just 10% of households expected to own a private vehicle, the development prioritises sustainable transport options, including the Sunbus—a solar-powered bus that will provide convenient, zero-emission transport throughout the precinct. This approach is expected to significantly reduce private vehicle

trips and associated Greenhouse Gas (GHG) emissions, reinforcing Sunfield's commitment to low-impact, sustainable living.

The significance of a car-free design is highlighted the fact that transport emissions are the fastest growing source of GHG emissions in New Zealand, accounting for 20% of New Zealand's overall GHG emissions, with nearly 70% of these emissions stemming from cars and light vehicles. In addition, it is estimated that GHG emissions from urban travel by private car contributes approximately one-third to the average household GHG footprint. Sunfield's inherent sustainable design measures and facilitation of behaviour change through eliminating private vehicles within the community, will contribute towards GHG emission reduction targets.'[61]

- The development follows sound, sensible environmental practice. All homes will meet the sustainability criteria of the Building Act 2004 and associated codes.

- Energy efficiency is a core part of the Sunfield vision, building healthy homes and buildings requiring less heating and utilising technology to enable residents to live smarter, demanding less electricity. Prioritising clean and affordable energy, most of the energy requirements of Sunfield will be filled with onsite solar power throughout the community. A letter from Lightforce Solar (Document 38), a solar power provider, accompanies this application. The letter outlines the operating parameters of the technology and that the solar solution for Sunfield is feasible and can be successfully implemented.

- A consolidated approach to stormwater management provides opportunity for improved water quality and resilience. It can be combined with water-sensitive urban design in the public realm and on-site water tanks for improved benefits. Water will be collected from the hub and village rooftops, enabling water storage and water supply for shared spaces throughout Sunfield.

- Excluding gas connections within Sunfield for heating and cooking further eliminates emissions and air pollution within homes and commercial sites, benefiting the health and wellbeing of residents, reducing environmental impact, and avoiding likely increases to gas bills as the cost of carbon increases.

[61] Sustainability and GHG Emissions Assessment dated 11 December 2024, Document 36, Executive Summary, Page iii

- With more green areas, Sunfield residents will also have access to shade, community gardens, supporting self-sufficiency and community interaction.

Overall, the project contains many measures that support climate change adaptation and reduction of greenhouse gas emissions. In conclusion, the Sustainability and GHG Emissions Assessment states:

'Sunfield's inherent sustainable design measures including facilitation of behaviour change through eliminating private vehicles within the community and the renewable energy network will contribute towards GHG emission reduction targets.'[62]

The Sunfield proposal will support the limitation of GHG emissions, particularly operational emissions associated with transport infrastructure and the generation of power.

Proposed conditions have also been recommended to ensure that solar panels are installed on all buildings, and that a scaled automated electric bus service is implemented in a staged roll-out commensurate with the scale of residential development.

7.22 Hazardous Substances

No hazardous substances are proposed to be stored or utilised on site as part of this proposal, curtailing any adverse contamination or human health risks.

7.23 Construction Effects

A draft Construction Management Plan (Document 12) has been prepared by Maven which outlines mitigation measures to reduce disruption during the construction phase. During the construction stage of development, potential temporary effects associated with construction traffic, noise and vibration may arise. Overall, the project will take approximately 10 years to complete across 244.5ha, meaning construction management techniques will need to be flexible and adaptable. Whilst most of the construction effects will be internalised given the size of the site, the proposed conditions require the various construction management plans to be submitted and approved prior to each stage of development. This will allow for the specifics of each stage to be considered, and any learnings to be factored into subsequent management plans.

[62] Sustainability and GHG Emissions Assessment dated 11 December 2024, Document 36, Section 8, Page 50

Given the size of the site and the ability to manage the staging and construction activities away from more sensitive residential activities (with adjoining rural land uses to the east), it is anticipated that these effects can be appropriately mitigated. These effects can also be further managed with the hours of construction being during the day, the machinery used e.g. lightweight and rubber tyred.

The various management plans proposed as part of the conditions relate to:

- *Construction Noise and Vibration Management Plan* – the geotechnical conditions i.e. peat with no rock present, will allow noise and vibration effects to be controlled effectively.

  As a safeguard, conditions are also proposed which require construction activities to comply with the relevant noise standards (NZ Standard 6803:1999) and vibration standards (German Standard DIN 4150 Part 3:1986).

- *Construction Management Plan* – a general condition ensuring that the best practicable option is identified and utilised for construction activities.

- *Construction Traffic Management Plan* – this will ensure that the surrounding road network (including footpaths) operate safely and efficiently for all road users, at all times. Given the roading layout in the surrounding area, with numerous alternative routes possible (including use of the subject site), it is anticipated that construction traffic will be managed safely and efficiently. Given the staging of development, the anticipated traffic volumes are not anticipated to have a noticeable effect on the surrounding roading network. In addition, traffic routes will be chosen to minimise the impact of construction traffic on residential streets, where possible.

Overall, it is considered that the adverse effects associated with construction activities will be managed due to construction methodologies, which will be considered and addressed further in various updated Management Plans, with an over-arching Construction Management Plan.

7.24 Effects Conclusion

Overall, the effects listed above are anticipated and known, with the adverse effects being able to be mitigated, primarily through the design response, conditions of consent and on-going monitoring, namely:

- The proposal constitutes appropriate urban growth and transition from the neighbouring suburbs of Takanini and Papakura.

- Activities and building typologies in close proximity to Ardmore Airport will address reverse sensitivity matters, particularly noise and the safety of people.
- Flooding and stormwater effects will be mitigated by the expansion of the Awakeri Wetlands, and the associated stormwater channels.
- Transportation effects will be mitigated through appropriate infrastructure upgrades, restricting parking opportunities, the Sunbus automated public transport, and on-going monitoring.
- There will be on-going engagement with mana whenua as the project progresses.
- Adverse effects associated with construction, earthworks, contamination, and sediment and erosion control can be mitigated through appropriate conditions of consent recognising that the development will be staged to maximise efficiency and control adverse effects. The size of the site will allow for effects to be largely internalised, with management plans proposed in order to achieve flexibility and to adapt to on-site learnings.
- When reviewed in detail, the land is generally land not of high production value given the heavy clay soil textures and wetness limitations. Urbanisation is therefore considered an appropriate land-use recognising the surrounding residential areas and airport, and low agricultural productivity and economic viability.

There will also be significant positive effects associated with Sunfield, namely:

- The provision of significant housing and employment opportunities.
- The significant economic benefits associated with additional housing and employment opportunities, estimated to be around $4.68 billion.
- The retention and enhancement of natural wetlands and streams in the south-eastern portion of Sunfield, formally known as 'Wai Mauri Stream Park'.
- A sustainable and energy efficient proposal with buildings requiring less heating and utilising technology to enable residents to live smarter, demanding less electricity, with the energy requirements of Sunfield being mostly filled with onsite solar power and energy storage solutions throughout the community. The Sunbus autonomous electric vehicle shuttle fleet will also lower emissions from the proposal, with the proposal allowing people to work, live and play within a walkable catchment.

7.25 Summary of Mitigation Measures

The proposed mitigation measures are outlined in the above assessment of effects and the attached technical reports. The below table provides a summary and description of these mitigation measures to help prevent and reduce actual and potential effects of the activity.

Report Section	Actual or Potential Effect	Mitigation Measures
7.1	Effects of Urban Growth and an Appropriate Location	Continuous growth out from the existing urban area is supported with the effects being mitigated by: • The proposal has good connections to the existing urban area including the existing rail network. • The proposal does not fragment rural land. • The proposal provides good access to different land-uses and the existing urban areas of Papakura, Takanini and Manukau Metropolitan Centre, which will be complimented by the proposed Local Centres and Town Centres within Sunfield. • When looked at in detail, the subject land is not considered to be high value productive rural land and is therefore appropriate for urbanisation. • Utilising the location of Ardmore Airport to support adjacent industry and employment opportunities to create a 'hub'.
7.2	Amenity and Character	Amenity and character effects from Sunfield will be mitigated in the following way: • The activities contained within Sunfield are diverse, which allows people to access employment, recreation and residential activities using active modes of movement with multiple integrated connections and the Sunbus autonomous electric vehicle shuttle fleet. With the restriction on privately owned vehicles, the amenity and character of the area will be of a pleasant nature designed for people. • Concept plans are provided, and design controls are proposed for the respective precincts (Documents 3k, 3l, 3m, 3n, 3o and 3p) which outline the design and location requirements for buildings and landscaping, and how these are to integrate with connecting roads/laneways and the surrounding land-uses. This, in turn, outlines how the precincts will create a high-level of amenity, whilst mitigating any potential adverse amenity and character effects.

		• The residential neighbourhoods are located in the western portion of Sunfield, which provides an appropriate transition from the residential suburbs further west. • The proposed laneways are designed to allow for pedestrian priority, with landscaping, paving materiality and gathering areas emphasising the human scale. The laneways are 6 metres wide, with a minimum width of 8.4m between buildings. • Given geotechnical conditions, dwellings will be limited to two-storeys, ensuring that dominance and shadowing effects (and in turn amenity effects) are minimised. • The entrance ways to the dwellings are setback from the laneways with overhangs and canopies to ensure a welcoming environment. Glazing and balconies on the upper levels, overlooking the laneways, provide for passive surveillance opportunities and adhere to CPTED design principles. • The two-level buildings within the Local Hubs will be of an appropriate scale with the apartments and commercial activities providing activation of these areas, reducing the potential for anti-social behaviour and mitigating adverse amenity effects. • Neighbourhood Service Hubs within each neighbourhood will provide spaces for visitor parking, shared parking, cycle storage, rubbish collection, pick up zones, and post and courier services minimising character effects through the co-location of services away from residential dwellings. • It is proposed to utilise both a combination of private and public waste collection services, which will fit into the required frequency of service. Initial discussions have been undertaken with private waste collection services to understand vehicle sizes and access requirements. Feedback was received from Rubbish Direct Limited (Document 45), outlining that the design of the neighbourhood layouts was generally good for waste collection as there was minimal, if any, need for trucks to reverse in the laneways and COALs. The trucks can circulate around these areas without the need for reversing. A Waste Management Plan is also proposed as a condition of consent (32) to build on the design philosophy, which will mitigate adverse effects.

		• Conditions (particularly 28 and 31) of consent are proposed to ensure the urban design outcomes are realised and adverse amenity and character effects are mitigated. This includes: - the elevations of every building including façade components, external cladding, glazing, surface finishes and colour scheme are provided prior to construction and in accordance with the Sunfield Concept Masterplan and relevant Design Controls document. - the detailed landscaping plans are prepared and implemented in line with the Landscape Drawings prepared by Studio Pacific Architecture.
7.3	Economic	As outlined within the Property Economics (Document 16) report: Loss of Rural Productive Land – *'The strategic location of the Subject site mitigates the potential economic impact, making it not a significant cost. Significantly, when evaluating other feasible and efficient options within the same locality and market, it becomes evident that the Subject site emerges as the most suitable greenfield choice for accommodating additional residential supply.'*[63] Cost of Infrastructure – *'Although being directly adjacent to the Auckland urban boundary means the extent of required infrastructure upgrades is likely to be limited, the cost of any upgrades to the wider network will need to be serviced by the Council. These capital costs are likely to be mitigated, at least in part, through either developer contributions or the level at which the developer provides the infrastructure itself.'*[64]
7.4	Flooding and Stormwater	As outlined within the Three Waters Strategy Report including a Stormwater Modelling Report (Document 7), and the Stormwater Management Plan (Document 9), the stormwater strategy will ensure that flooding and stormwater effects will be appropriately mitigated through the diversion of external flow, and wetlands and channels for conveyance and storage, allowing for development to occur within Sunfield. (Section 3.3. of the Three Waters Strategy Report).

[63] Property Economics Report dated December 2024, Document 16, Section 11.2, Page 88
[64] Property Economics Report dated December 2024, Document 16, Section 11.2, Page 88

		Consent conditions are proposed, particularly for the subdivision consent, requiring that the detailed design specifications for the stormwater reticulation networks and management devices be provided and submitted for certification and that the relevant engineering standards are met. (Conditions 161, 162, 170, 171, 172 and 175). The Engineering Plans (Document 10) and Three Waters Strategy Report (Document 7) provide information on; • Reticulated stormwater network; • Stormwater channels and wetlands; • Road bridges over the stormwater channels; • Stormwater culverts under the roads; • Proposed swales and diversion paths; • Recharge pit design; • Stormwater catchment plan. • Stormwater treatment devices. • Overland flowpaths. • Pre and post development flood extents.
7.5	Wastewater	As outlined in the Maven Three Waters Strategy Report (Document 7), the LPS option for the proposed development would keep the discharge levels below the existing downstream capacity, which ensures that subject to the proposed network extensions to the downstream Takanini Branch Sewer (being the existing 525mmØ transmission line), no downstream infrastructure upgrades would be required to service the development. Consent conditions are proposed, particularly for the subdivision element, requiring that the detailed design specifications for the wastewater reticulation networks be provided and submitted for certification and that the relevant engineering standards are met. (Conditions 161, 162 and 167).
7.6	Water Supply	As outlined in the Maven Three Waters Strategy Report (Document 7), discussions with Veolia indicate that a connection to the nearest (Bulk Supply Point) BSP will be necessary.

		There are two BSPs in the vicinity of the subject site, meaning a connection point with appropriate capacity will be achievable, noting consultation with Veolia and Watercare will be required to confirm the preferred connection point and capacity. Consent conditions are proposed, particularly for the subdivision element, requiring that the detailed design specifications for the water reticulation networks be provided and submitted for certification and that the relevant engineering standards are met. (Conditions 161, 162, 168 and 169).
7.7	Other Infrastructure	Consultation has occurred with Tuatahi First Fibre Limited (Document 42) and Chorus (Document 44) which outlines that both operators can provide fibre communication connections into the development. Likewise, consultation with Vector regarding the extension of the electrical network has also occurred and is on-going (Document 43). Consultation has been undertaken with solar energy network providers and advisors. Lightforce has issued confirmation (Document 38) that an alternative solar network can be provided. A condition is proposed requiring certification from the utility provider that the connection has been satisfactorily provided prior to the issuance of the 224c certificate to ensure these effects are mitigated.
7.8	Transportation	An Integrated Transportation Assessment Report has been prepared by Commute (Document 31), with transportation effects associated with Sunfield being mitigated in the following ways: • Parking is only provided in the order of 10% (excluding visitors) of a more typical development. • 'Sunbus' electric bus fleet providing continuous and reliable connection to the Papakura and Takanini Train Stations. • The ability for residents of Sunfield to 'Live Local' and 'Work Local'. • The ability to walk and / or cycle to the Papakura and Takanini Train Station. • 600 of the dwellings will be retirement units, reducing private vehicle use from the development.

		• Nine local intersection upgrades will occur to facilitate the safe and efficient movement of private vehicles, public transport, and active modes of transport. The future intersection layouts are outlined within the Integrated Transportation Assessment Report by Commute (Document 31) • The requirement of a Travel Plan for the Employment Precinct (Condition 130), to minimise the use of private vehicles used by staff travelling to and from Sunfield. • Sunfield is a unique proposal in the New Zealand context, meaning monitoring will be required to ensure the relevant assumptions have been accurate and measures can be adapted as necessary. This will particularly be the case for illegal parking within Sunfield, people parking outside of Sunfield and walking, loading and servicing, and public transport uptake. • Conditions are proposed to ensure that the parking ratios are within proposed parameters and that EV charging stations are provided within the development (Conditions 109 to 113). • Conditions are also proposed to ensure that the roading and transportation infrastructure is constructed and implemented at the required and appropriate stage of development (Conditions 120, and 122 to 124) • A Sunbus Operational Plan is also required to be submitted after Stage 3 of the proposed development, to ensure that the public transport service functions as intended. This is a proposed condition of consent (114).
7.9	Cultural	A Mana Whenua / Māori Engagement Report has been prepared by Navigator Limited outlining the engagement process with iwi and the key outcomes and findings from mana whenua (Document 5). The key mitigation measures regarding cultural effects are that the design layout and response addresses the key environmental components of iwi interest, particularly stormwater, streams, wetlands, landscaping and ecology. The Wai Mauri Stream Park was also designed in collaboration with iwi. Mana whenua will continue to be involved in the design and implementation as Sunfield evolves, through the proposed consent conditions (88 and 89).

		Conditions (72 and 150-152) are also proposed requiring the consent holder to invite mana whenua to give a cultural induction to the site, to all relevant contractors involved prior to the commencement of earthworks and construction.
7.10	Productive Land	An assessment of Sunfield regarding the potential loss of productive land has been undertaken by Landsystems (Document 28). Urbanisation is considered an appropriate land-use recognising the surrounding residential areas and airport, and low agricultural productivity and economic viability, with the effects associated with a loss of productive land being mitigated by an alternative, more appropriate land-use.
7.11	Ecology	The ecological effects associated with the proposed development will be mitigated in the following ways: • The natural streams (primarily Watercourse 2) and a natural wetland in the south-eastern portion of the site (Sunfield South) will be protected and enhanced. Over time, these conveyance channels and streams, with the associated planting, will see the creation of an environment with high ecological value. As previously mentioned, this is to be formally known as 'Wai Mauri Stream Park' (Document 3b). • Significant planting and landscaping associated within the proposal (Document 3c), particularly adjacent the stormwater channels, in the riparian margins and adjacent the natural inland wetland within 'Wai Mauri Stream Park', will ensure the loss of vegetation elsewhere on the site is mitigated. • No earthworks are proposed within Watercourse 2 and the Natural Inland Wetland, as illustrated in the proposed cut and fill plan M-C213 Rev A. The proposed sediment and erosion control plan M-C223 Rev A illustrates the use of super silt fences, to protect the wetland and stream from water containing sediment, including the locations and size of the respective sediment erosion ponds. The catchment within the development site upstream of Watercourse 2 is managed by a series of Sediment Retention Ponds that will capture and treat any run-off before discharging. • Conditions have also been proposed to ensure that ecological effects are appropriately managed and overseen, which includes ecological management plans for fish, lizards and vegetation

		removal, as well as a stream riparian planting plan to be submitted and certified prior to works commencing on site. A draft Environmental Management Plan is attached as Document 35.
7.12	Landscape and Visual	The Landscape and Visual Effects Assessment prepared by Reset Urban Design Limited accompanies this report (Document 18), which outlines the following key mitigating factors: • The current use of the site as rural production with limited vegetation has a generally low landscape value. • The flat topography of the area and extensive shelterbelt planting reduces the viewing audiences to those within close proximity. • The proposed design of Sunfield manages landscape and visual effects with extensive boundary buffer treatments. • The bulk of buildings will typically be up to three storeys in a variety of sizes and forms which will visually connect to the neighbouring suburbs of Takanini and Papakura.
7.13	Ardmore Airport – Reverse Sensitivity	<u>Noise</u> An Acoustic Report prepared by Styles Group is provided (Document 29), noting the following mitigation measures: • Appropriate acoustic treatment will be applied to buildings within the noise overlay between the 55 dB Ldn and 65 dB Ldn contours, to ensure an appropriate indoor environment. • Land-use activities will be distributed in line with the respective overlays, to ensure activities that can accommodate noise will be located closer to Ardmore Airport, with open space areas and residential activities in the quieter part of Sunfield. • The proposed set of conditions (141-143, 213-214) outline a number of requirements to mitigate adverse noise effects associated with Ardmore Airport, including: - Restricting activities within the respective noise overlays. - Requirements for sound attenuation and ventilation and/or air conditioning. - Covenants to be placed on the Records of Title ensuring that any acoustic insulation or mechanical ventilation measures

		used to mitigate aircraft noise are not to be removed at any time in the future. - No complaints covenants regarding aircraft noise are proposed to be placed on all titles within the Sunfield development. <u>Proximity of Land-Use Activities and Buildings</u> An Aviation Safety Report entitled 'Proposed Sunfield Development, Ardmore Airport Safeguarding' prepared by Lambert & Rehbein Pty Ltd is provided (Document 19), noting the following mitigation measures: • In order to manage wildlife, particularly birds, within the vicinity of Ardmore Airport, a condition is proposed (98) requiring a Wildlife Management Plan to be submitted and certified. • Activities and buildings in the vicinity of Ardmore Airport are restricted to low people generating at grade activities, being predominantly 'yard' activities. Conditions (96 and 97a) are proposed restricting building heights, in line with the concept plans and Designation 200. • Conditions are also proposed for the emissions of particulate matter (97b) within the vicinity of Ardmore Airport, and lighting design (99 and 100), particularly for roads to avoid confusion for pilots. This is in recognition that the design of Sunfield, and the location of buildings and roads aims to mitigate these matters in the first instance.
7.14	Reverse Sensitivity – Rural Areas Adjoining Urban Area	Given the proximity of existing rural land to east of the proposed urban land, there is the potential for reverse sensitivity effects to occur. These effects are considered to be appropriately mitigated through the proposed design, with the areas adjoining the existing rural areas being either open space greenways, or employment activities.
7.15	Gas Line	Given the critical nature of this infrastructure, it is not proposed to undertake the construction of any buildings within a 25-metre corridor, in line with the gas line designation, noting that the open space network includes the gas pipeline location to minimise any access impacts. Conditions (115, 116, and 174) are proposed to ensure this occurs, in line with the designation.

7.16	Geotechnical	A Geotechnical Report undertaken by Land Development and Engineering (LDE) has been submitted with this application and is attached as Document 24, which outlines the following mitigation measures which are summarised within the Executive Summary: • Percolation testing has been undertaken, which has led to the stormwater management techniques with recharge pits to manage groundwater levels (sections 6.7 and 8.7 of Document 24). • Proposed slopes will not exceed 1(v) in 4(h) which will mitigate slope stability issues (section 7.2 of Document 24). • Consolidation settlements and liquefaction will be mitigated by undercutting beneath building footprints and reinstatement with compacted hardfill or sand and/or pre-loading, as well as raft foundation design for buildings (sections 7.3 and 8.1 of Document 24) • Tables 6.2 and 6.3 of Appendix 6.1 within Document 24 provides a summary of the foundation solutions for the respective geotechnical zones within the development area, with the building designs being of an appropriate size and scale to mitigate effects associated with ground settlement (section 8.1 of Document 24). • An area of non-engineered fill has been identified in the south-eastern portion of the site. This area will be undercut and re-instated to ensure appropriate ground conditions (section 8.3 of Document 24). • Ground improvements will be required to mitigate settlements resulting from the proposed earthworks and building loads, including undercut and replacement, preloading and/or lag periods following earthworks to allow settlements to attenuate. Earthworks in these areas require the use of track-rolled peat materials (section 8.4 of Document 24). • Buried services in peat soils face the risk of settlement (see section 7.18 and the Earthtech Groundwater and Settlement Monitoring and Contingency Plan (EGSMCP) attached as Document 26). • Roading subgrades will require subgrade improvement due to the peats / weak crustal deposits. Precedence has been set in the Takanini / Ardmore area for 500mm to 900mm undercuts reinstated with 'black sand' laid upon geotextile cloth, whereupon

		targeted beam deflection values have then been achievable (section 8.6 of Document 24). • Document 24 provides mitigation measures that will be undertaken to minimise adverse effects associated with geotechnical conditions. A detailed set of proposed conditions are put forward recognising the dynamic and flexible nature required for a project of this scale. Conditions (38-40) include requirements of suitable qualified experts being present on site to supervise all excavations, retaining and foundation design, and on the completion of works a Geotechnical Completion Report being provided.
7.17	Earthworks	The details of the proposed mitigation measures for sediment and erosion control are outlined within the Infrastructure Report (Sections 3.5, 3.6 and 3.9 of Document 8) prepared by Maven. A set of sediment and erosion control plans are contained within Document 10 which illustrate the soil geology, contours, sediment erosion ponds, catchment areas, proposed silt fences, diversion bunds, haulage roads and vehicle entrances. Conditions (22-26) are proposed to ensure that an updated and finalised Erosion and Sediment Control Plan and a Chemical Treatment Management Plan is provided for certification prior to earthworks starting on site. Other proposed conditions (72-87) outline general requirements regarding deposition of earth, cultural monitoring, sediment/erosion control, stability, and appropriate use of machinery and equipment.
7.18	Groundwater	A Groundwater and Settlement Monitoring and Contingency Plan (GSMCP) (Document 26) has been developed by Earthtech Consulting Limited for the purposes of the Awakeri Wetlands Stages 2 and 3 project, which falls within the Sunfield proposal. This report is a fair representation of the wider Sunfield area regarding groundwater conditions. A detailed set of proposed conditions (41-71) outline the monitoring requirements, in line with the GSMP, to ensure settlement effects on land and in turn assets are appropriately mitigated.
7.19	Contaminated Land	A suite of Preliminary Site Investigation (PSI) reports and Detailed Site Investigation (DSI) reports have been prepared by Focus Environmental

		Services Limited, along with a global Contamination Site Management Plan (Document 33). The SMP outlines the site investigation regime, guideline values, erosion and sediment control procedures, dust control, health and safety measures, disposal procedures, dewatering procedures, imported fill procedures, contingency measures and closure requirements. Conditions of consent (131-138) are also proposed requiring DSIs to be undertaken if not undertaken already, and work being in accordance with the submitted Remediation Action Plans and the global Site Management Plan.
7.20	Archaeology and Heritage	The removal of the building at 80 Hamlin Road is proposed. Whilst this building is not a scheduled building under the Auckland Unitary Plan – Operative in Part, there is reasonable cause to suspect that the site was occupied prior to 1900. This will be considered under a separate application to Heritage NZ, recognising and authority must be obtained.
7.21	Sustainability and Greenhouse Gas Emissions (GHG)	As outlined within the Sustainability and GHG Emissions Assessment (Document 36) a number of measures are proposed to mitigate greenhouse gas emissions, including: • A reduction in car-parking spaces and use. • Co-locating housing, employment and recreational activities. • Alternative transport options, with an extensive active mode network and the Sunbus public transport proposal – a solar-powered bus that will provide convenient, zero-emission transport. • All homes will meet the sustainability criteria of the Building Act 2004 and associated codes. • Most of the energy requirements of Sunfield will be filled through onsite solar power. • Water-sensitive urban design in the public realm and on-site water tanks. Proposed conditions have also been recommended to ensure that solar panels are installed on all buildings (109), and that a scaled automated electric bus service is implemented in a staged roll-out (114).

7.23	Construction Effects	Construction techniques will need to be flexible and adaptable. Whilst most of the construction effects will be internalised given the size of the site, the proposed conditions require the various construction management plans to be submitted and approved prior to each stage of development. • Construction Noise and Vibration Management Plan (14-17) • Construction Management Plan (18 and 19) • Construction Traffic Management Plan (20 and 21) A draft Construction Management Plan (Document 12) has been prepared by Maven which outlines mitigation measures to reduce disruption during the construction phase.

7.26 Effects of the Activity on People in the Neighbourhood

The above assessment of effects and the attached technical reports outline the effects of the activity on people in the neighbourhood. The below table is to be read in conjunction with this assessment and provides an overview of the respective areas of the neighbourhood and the extent and nature of actual and potential effects.

The basis of the below assessment is to undertake an analysis on broader neighbourhood groupings, as per **Figure 51**, which has broken the neighbourhood into four broad areas:

1. Residential South (Purple) – Residential land to the south of Old Wairoa Road, within the Rural Urban Boundary, including the residential catchment of Pukeroa Place.
2. Residential West (Blue) – Residential land to the west of Cosgrave Road.
3. Rural North (Green) – Rural land to the north of Sunfield, in the vicinity of Airfield Road.
4. Rural East (Yellow) – Rural land to the east of Sunfield.

These individual broad areas have similar characteristics and comparable receiving environments for such an assessment to be undertaken. Ardmore Airport has been considered under section 7 above, particularly section 7.13, so has not been factored into this overview neighbourhood assessment.

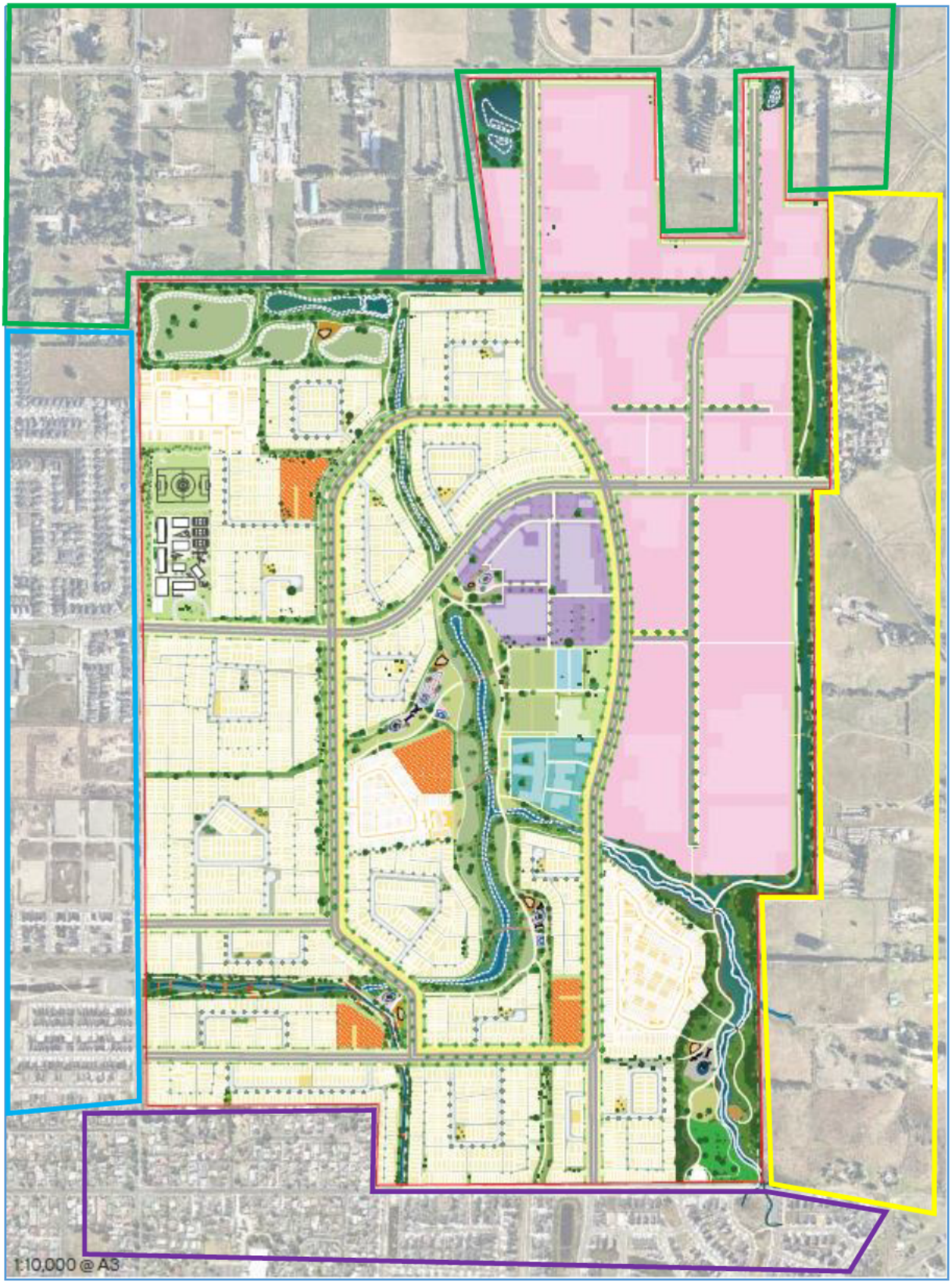

Figure 51: Broad Neighbourhood Groupings

Report Section	Actual or Potential Effect	Neighbourhood	Comment
7.1	Effects of Urban Growth and an Appropriate Location	Residential South Residential West Rural North Rural East	The effects of urban growth are generally associated with impacts at a macro level on the form and functionality of an urban area. These matters can be broken down into smaller discreet parts, such as those outlined and assessed within this table, for example transportation, amenity and character.
7.2	Amenity and Character	Residential South	The southern interface of Sunfield predominantly comprises residential properties in neighbourhoods 2, 3 and 5, noting the following: • These proposed residential properties will have a variety of 2, 3 and 4 bedroom housing typologies providing diversity. These proposed residential dwellings will be two levels, reducing potential dominance and streetscape effects, whilst being of a similar scale and form to the existing residential dwellings to the south. Larger buildings are located a considerable distance away to the north in the Town Centre and Employment Precinct. • Given the earthworks proposed in the south-eastern portion of the site, the land to the south of Sunfield will effectivity be on higher ground, mitigating any adverse dominance effects. • Old Wairoa Road runs adjacent to the majority of the southern boundary of Sunfield, which is a 20m wide road and provides parking opportunities on both sides of the carriageway. This provides an appropriate setback and break in the built form between the two respective areas. • The southern portion of the residential proposal within Sunfield is punctuated when viewed from the south with roads (Road 1), open space connections, laneways and

			pedestrian connections. This ensures that the built form is broken up and provides visual respite ensuring that the dominance and streetscape effects are mitigated and reduced. • The Residential Design Controls also stipulate that fencing along Old Wairoa Road is to be at a maximum height of 1.6m with 0.3m of landscaping planted on the roadside to ensure a softening of the fencing and built form, ensuring a high level of streetscape amenity. • The open space connections which intersect with Old Wairoa Road, and Pukeroa Place (adjacent the existing playground) provide for passive recreation opportunities with landscaping, both hard and soft, and an enhanced stormwater conveyance channel. • The open space connections and micro mobility connections also provide access to the Local Hubs, which provide community and commercial spaces which can be utilised by residents to the south of Sunfield. • The Wai Mauri Stream Park is located in the southern portion of Sunfield, which provides a high-level of amenity for properties to the south, both from a visual outlook perspective, and accessibility. Access to this area will no be available for passive recreation which will include wetlands, streams, landscaping, footpaths and a playground. Therefore, the amenity and character effects on the residential properties to the south will be appropriately mitigated.
		Residential West	The western interface of Sunfield comprises residential properties to the south, being neighbourhoods 1, 2, 8 and 10, and the proposed School Precinct and Aged Care Precinct (Lilyburn) further north, noting the following:

			• These proposed residential properties will have a variety of housing typologies providing visual diversity. These proposed residential dwellings will be two levels, reducing potential dominance and streetscape effects, whilst being of a similar scale and form to the existing residential dwellings to the west. As illustrated in section 7.13.1 of this report, the proposed density in this western portion of Sunfield is comparable to the density further to the west (29 dwellings per hectare within Sunfield, and 34.1 dwellings per hectare to the west of Sunfield). Larger buildings are located a considerable distance away to the east in the Town Centre and Employment Precinct. • The site and surrounds are flat, not leading to any adverse dominance or streetscape effects that may result in a changing topography. • Cosgrave Road (and in turn Mill Road) runs adjacent to the western boundary of Sunfield, which is a 20m wide road and provides parking opportunities on both sides of the carriageway. This provides an appropriate setback and break in the built form between the two respective areas. • The western portion of the residential proposal within Sunfield is punctuated when viewed from the west with roads (Road 2, 4 and 6), open space connections including the Awakeri Wetlands, laneways and pedestrian connections. This ensures that the built form is broken up and provides visual respite ensuring that the dominance and streetscape effects are mitigated and reduced. • The Residential Design Controls also stipulate that fencing along Cosgrave Road is to be at a

			maximum height of 1.6m with 0.3m of landscaping planted on the roadside to ensure a softening of the fencing and built form, ensuring a high level of streetscape amenity. • The open space connections which intersect with Cosgrave Road, provide for passive recreation opportunities with landscaping, both hard and soft. This provides a connection to the residential neighbourhood to the west and Stage 1 of Awakeri Wetlands, ensuring an integrated stormwater solution and open space connectivity. • The open space connections and micro mobility connections also provide access to the Local Hubs, which provide community and commercial spaces, and the Centralised Stormwater Park with playgrounds, bike track and basketball courts, which can be utilised by residents to the west of Sunfield. • The School Precinct further to the north, provides significant building setbacks (16m) to ensure that dominance effects on neighbouring properties to the west are reduced, with proposed landscaping also softening the appearance of buildings and creating a buffer around the perimeter of the site. The courtyard is also centralised within the School site, internalising activities and reducing adverse effects, such as noise from children playing. • The Aged Care Precinct (Lilyburn) has a 2.5m wide landscaped buffer strip between the site and Mill Road, with buildings setback further (approximately 7.5m) to help soften the appearance of the proposed built form. The larger amenity buildings, at 11m high will be setback further into the site, ensuring

			streetscape and dominance effects are appropriately mitigated. Therefore, the amenity and character effects on the residential properties to the west will be appropriately mitigated.
		Rural North	The northern interface of Sunfield comprises the proposed Employment Precinct and the Wetland Park, noting the following: • The proposed open space network with landscaped setbacks, including Wetland Park, the Northern Wetland and the Northern and Eastern Greenways, will provide an appropriate buffer from immediately adjacent neighbours to the north and maintaining a sense of openness. • The building footprints within the Employment Precinct will ensure that there are appropriate setbacks from the neighbouring properties, with a 20m setback from Airfield Road, with large at-grade areas breaking up the building form and reducing the dominance effects. • A landscape buffer within the 20m building setback is also proposed along the Airfield Road streetscape in the Employment Precinct, which will be a 5m planted buffer comprised of a Pittosporum crassifolium hedge and species selected from the Forest Margins Planting Palate. This will ensure a high level of amenity recognising the rural character this area. • The movement of loading and trucking vehicles through the rural area to the north will not create adverse amenity effects recognising the existing character of this area, with rural machinery and vehicles already operating in this area.

			Therefore, the amenity and character effects on the rural neighbourhood to the north will be maintained through the design of the proposal.
		Rural East	The eastern interface of Sunfield comprises the proposed Employment Precinct and the Wai Mauri Stream Park, noting the following: • The proposed open space network with landscaped setbacks, including Wai Mauri Stream Park, will provide an appropriate buffer from immediately adjacent neighbours to the east. • The building footprints within the Employment Precinct will ensure that there are appropriate setbacks from the neighbouring properties, with a 20m setback from the eastern boundary, with large at-grade areas breaking up the building form and reducing the dominance effects, recognising the Ardmore Airport flight path. Each lot within the Employment Precinct will also have substantial landscaping to soft the appearance of the buildings. • A landscape buffer within the 20m building setback is also proposed along the northern area of the Employment Precinct adjacent the eastern boundary, which will be a 5m planted buffer comprised of a Pittosporum crassifolium hedge and species selected from the Forest Margins Planting Palate. This will ensure a high level of amenity recognising the rural character this area. • The Design Controls for the Employment Precinct also stipulate that architectural variation of the buildings must include, as a minimum, variation in cladding material and colouring, appropriate levels of glazing, and

			modulation and articulation that breaks up the building. Therefore, the amenity and character effects on the rural neighbourhood to the east will be maintained through the design of the proposal.
7.3	Economic	Residential South Residential West Rural North Rural East	The economic impacts of the proposal will not have an impact on a particular neighbourhood surrounding Sunfield to a greater or lesser extent than any other. The surrounding population will have better access to different land-uses including employment, open spaces, retail/cafes and education within Sunfield, as well as access to potential job opportunities and alternative housing within their local neighbourhood.
7.4	Flooding and Stormwater	Residential South and Residential West (Catchment A – Western Catchment	As identified within the Three Waters Strategy Report (Document 7); *The proposed catchment diversion reduces the area draining to Papakura Stream Catchment in post-development scenario. The reduction in catchment size along with the proposed attenuation reduces the overall peak discharge flow rate (for up to 100-year ARI event) to less than pre-development peak discharge flow rate. The 100-year peak discharge draining to the Papakura Stream catchment has reduced from 60.71 m^3/s to 56.9m^3/s This has a positive effect on the Papakura Stream Catchment which is known to have downstream flooding issues.'*[65] This therefore has a positive effect on the people within the residential neighbourhood to the south and west.

[65] Three Waters Strategy Report, Document 7, Section 3.3.3.1, Page 29

		Rural North and Rural East (Catchments B, C and D – Eastern Catchment	The risk of flooding from displaced flood storage within Catchments B, C and D are not increased given additional flood storage will be provided within the Sunfield development, including wetlands and stormwater swales, and appropriate stormwater conveyance. The proposal ensures that the flood risk upstream and downstream for events up to the 100-year ARI is not increased, with the post-development 100-year ARI event flows proposed to be attenuated to existing pre-development levels. The flooding and stormwater effects on the rural neighbourhoods to the north and east will therefore be appropriately mitigated.
7.5	Wastewater	Residential South Residential West Rural North Rural East	The proposed LPS wastewater network for the development would keep the discharge levels below the existing downstream capacity, which ensures that subject to the proposed network extensions to the downstream Takanini Branch Sewer (being the existing 525mmØ transmission line), no downstream infrastructure upgrades would be required to service the development. Therefore, no surrounding neighbourhoods are considered effected from the proposed wastewater solution.
7.6	Water Supply	Residential South Residential West Rural North Rural East	A connection to the nearest (Bulk Supply Point) BSP will be necessary. There are two BSPs in the vicinity of the subject site, meaning a connection point with appropriate capacity will be achievable, therefore no surrounding neighbourhoods are considered effected from the proposed water supply solution.
7.7	Other Infrastructure	Residential South Residential West Rural North Rural East	Utility operators have confirmed that fibre communication and electricity connections can be provided into the development. This will not result in

			effects on people within the surrounding neighbourhoods.
7.8	Transportation	Residential South Residential West Rural North Rural East	Transportation effects within the surrounding neighbourhoods are more challenging to categorise into particular geographical areas given the movement of people and vehicles in the wider area is fluid. Section 9 of the Integrated Transportation Assessment (Document 31) outlines the effects arising from traffic generation. This includes trip rates, modal share, trip distribution, traffic modelling and required intersection upgrades. Section 9.4.1 outlines the future traffic operation of the area and likely effects at key intersections, recognising it is proposed to upgrade nine local network intersections. The Integrated Transportation Assessment states: *'All priority-controlled intersections are shown to operate well in the future, with spare capacity, low delays (as shown by the level of services being C or better), and the queues being minimal. This applies to the two intersections modelled on Airfield Road as well as the intersection of Pakaraka Drive and Papakura-Clevedon Road and Okawa Avenue / Old Wairoa Road. An assessment of the development site access onto Cosgrave Road was undertaken and found to operate acceptably from a capacity perspective.* *The signalised intersections are also shown to operate acceptably, with majority of movements experiencing acceptable levels of delay.'*[66]

[66] Integrated Transportation Report, Document 31, Section 9.4.1, Page 56

			'Overall, the operations of the signals are considered to meet industry accepted thresholds and for this reason are considered acceptable. It is also important to remember that the operations are for the peak hours in a 10-year horizon period, and therefore the intersection will operate better than the results show majority of the time.'[67] Therefore, the traffic generation effects on the people of the surrounding neighbourhood will be mitigated with the the proposed upgrades to the existing intersections providing safe and efficient manoeuvring of vehicles. It is also noted that people within the surrounding area will have better pedestrian connections with an upgrade to Old Wairoa Road, improved active mode facilities on Cosgrave Road between Walters Road and Clevedon Road, and a frequent public transport service to Papakura Town Centre. These will create positive transportation effects for people in the surrounding neighbourhood.
7.9	Cultural	Residential South Residential West Rural North Rural East	The effects on cultural values do not impact people within the surrounding neighbourhoods, but rather several iwi with mana whenua interests.
7.10	Productive Land	Residential South Residential West Rural North Rural East	The potential impacts on productive land are considered to be broader environmental effects rather than on specific people within the surrounding neighbourhoods.
7.11	Ecology	Residential South Residential West Rural North Rural East	The ecological effects associated with the proposal are generally contained within the site given the pockets of vegetation, drains, watercourses and the natural inland wetland in the southern portion of the site. These effects on the environment are mitigated through the retention

[67] Integrated Transportation Report, Document 31, Section 9.4.1, Page 57

			of the natural wetland and streams, with associated enhancement through landscaping and riparian planting. People within the surrounding neighbourhood, particularly those in the Residential South neighbourhood, will have the benefit of being able to access these ecological areas, something that would not otherwise be achievable, given they are being incorporated into the public open space network.
7.12	Landscape and Visual	Residential South Residential West Rural North Rural East	At section 6.160 of the Landscape and Visual Effects Assessment (Document 18), a summary assessment is provided outlining the views of Sunfield from the immediate vicinity[68], which states: • *The majority of the viewpoint locations have limited views of the Site (i.e are not expansive and are contained to localised portions of the Site) due to the flat topography and intervening features (such as shelterbelts and hedgerows).* • *Views from the immediate vicinity to the south and west would read the Proposal as a continuation of the existing urban form expanding from Takanini/Papakura. It is a logical continuation of the urban fabric given the Site's location, attributes and surrounding suburban context.* • *Residential development on the Site would not appear out of place or unexpected and would be in keeping with 'urban' character of the surrounding context – medium density residential on two sides and the airport on the other side.* • *Boundary planting treatments along key interfaces provide important setbacks, buffers and visual screening to the proposed development.*

[68] Reset Landscape and Visual Assessment Report, Document 18, paragraph 6.151, Page 41

			• *Extensive planting to the northern and eastern edge of the Site would also provide a wide 'vegetated' buffer between the Site (urban) and adjacent rural land use.* • *These factors have combined with other considerations to result in effects ratings that 'peak' at a Moderate level for close viewpoints on Airfield Road and Village Way, primarily in relation to the initial change in rural character and 'openness' of the Site when experienced from these locations. These effects would likely reduce as proposed boundary treatment planting grows, matures and screens the Site.* • *All of the other ratings range between Low and a Low-Moderate level of effect. The visual amenity of many of the views will be improved by the Proposal, and many of the views also reflect a high degree of integration between the existing urban form and the Proposal.* The Landscape and Visual report concludes that the visual effects from immediate views are Low-Moderate.
7.14	Reverse Sensitivity	Residential South and Residential West	There will not be any reverse sensitivity effects in the southern and western portion of the site given the proposed residential activities will be adjacent existing residential areas.
		Rural North and Rural East	The occupiers of Sunfield have the potential to be impacted by the rural activities to the north and south, such as machinery noise, spraying of vegetation, and stock control. These effects are mitigated by open spaces providing an appropriate transition and buffer to the urban land, with planting and landscaping adjacent the stormwater channel and a 3m wide shared pedestrian and cycle path. The employment precinct is located beyond the northern and western greenways, which will generally

			include industrial activities which have a lower amenity expectation than that of residential activities regarding noise, odour and the timing of such rural activities. It is therefore considered that the reverse sensitivity effects on the rural/urban boundary can be appropriately managed given the design and activity layout of the Sunfield proposal.
7.15	Gas Line	Residential South Residential West Rural North Rural East	The existing gas line runs through the site, and traverses existing neighbouring land, therefore the proposal will not alter or change any effects associated with the existing gas line on surrounding neighbourhoods.
7.16	Geotechnical	Residential South Residential West Rural North Rural East	The geotechnical conditions of the subject site do not affect people within the surrounding environment.
7.17	Earthworks	Residential South Residential West Rural North Rural East	The effects associated with sediment and erosion control can largely be contained within the site through appropriate management techniques such as diversion channels and bunds, sediment retention ponds, progressive stabilisation, dust controls and silt fencing. Site stability will impact the subject site only, recognising the site is flat which minimises deep cuts. The only areas of significant earthworks is in the vicinity of residential neighbourhood 5, the Employment Precinct in the north-east, and for the construction of the stormwater channels. This will not impact the Rural East or Residential South neighbourhood from a landform perspective, as the proposed contours will appropriately blend and transition into the flat land to the west.
7.18	Groundwater	Residential South Residential West Rural North Rural East	The groundwater conditions across the entire Sunfield proposal are generally consistent, with the groundwater effects being associated with the excavations required for the development, primarily the stormwater channels.

			This therefore has the potential to impact the residential properties and assets to the west (adjacent Awakeri Wetlands), and the rural properties and assets to the north and east (adjacent Wetland Park and the Northern and Eastern Greenway). In light of these potential settlement effects a condition of consent is proposed to ensure an updated Groundwater and Settlement Monitoring and Contingency Plan (GSMCP) is submitted, and a Pre-Dewatering Building and Structure Survey is undertaken.
7.19	Contaminated Land	Residential South Residential West Rural North Rural East	Any effects from potentially contaminated land will be contained within the subject site, recognising the CSMP outlines the erosion and sediment control procedures, dust control, health and safety measures, disposal procedures, dewatering procedures, and contingency measures. Therefore, no people within the surrounding neighbourhoods are considered to be affected by potential contaminants being exposed within the subject site, recognising the current use as rural production with limited land contamination anticipated.
7.20	Archaeology and Heritage	Residential South Residential West Rural North Rural East	The effects associated with heritage and archaeology are internalised within the site, with no surrounding neighbourhoods specifically effected by the proposal with regard to heritage and archaeology matters.
7.21	Sustainability and Greenhouse Gas Emissions (GHG)	Residential South Residential West Rural North Rural East	The potential impacts on sustainability and greenhouse gas emissions are considered to be broader environmental effects rather than on specific people within the surrounding neighbourhoods.
7.23	Construction Effects	Residential South Residential West Rural North Rural East	The effects associated with construction activities can largely be contained within the site given its size and the use of appropriate management techniques such as fencing, hours of operation and the type of machinery used.

			There are five proposed vehicle entranceways to the site during the earthworks stage, being: 1. Residential South – Old Wairoa Road, at the intersection with Pakaraka Drive (Alignment with proposed Road 1). 2. Residential West – Cosgrave Road, at the intersection with Bellbird Street (Alignment with proposed Road 2). 3. Residential West – Cosgrave Road, in the vicinity of Parahau Road (Alignment with proposed Road 4). 4. Residential West – Cosgrave Road, at the current Hamlin Road intersection within Sunfield. 5. Rural North – Airfield Road, in the vicinity of 280 Airfield Road. (Alignment with proposed Road 1). The people within the neighbourhood adjoining these vehicle entranceways are likely to experience constructions effects greater than others in the area given construction traffic and access. These effects can be mitigated, noting: • Stabilised vehicle entranceways are proposed to ensure sediment and earth does not get onto the road network. • Each of these roads are 20m wide, allowing for temporary solutions to be provided for traffic movements in both directions. • Given the proposed staging plan, there are opportunities to have a limited number of the five entranceways operational at any one time, meaning each entrance will not be in use for the whole construction period of 10 years. Likewise, there will be opportunities to spread vehicle movements across the five entranceways, if particular areas are getting congested. Essentially, having 5 entranceways provides flexibility of access and route planning.

			• The entranceways can be utilised at different times of the day to cater for peak vehicle movements in the morning and evening. • Given the size of the site, parking for construction workers will be contained on site.

The effects arising from Sunfield can be accommodated within the surrounding neighbourhood, given many of the effects can be internalised within the subject site, or can be mitigated by appropriate methodologies and techniques. The proposed character and scale of the urban environment is similar and compatible with the existing residential neighbourhoods to the west and south, with appropriate boundary treatments and buffers minimising the effects on the rural neighbourhoods to the north and east.

8 National Policy Statements and National Environmental Standards

The below section provides an assessment of the relevant National Policy Statements and National Environmental Standards in relation to the Sunfield proposal.

8.1 National Policy Statement on Urban Development 2020 (NPS-UD)

The National Policy Statement on Urban Development 2020 (NPS-UD) came into force on the 20th of August 2020 and provides direction to decision-makers on planning for urban environments. The NPS-UD sets out objectives and policies that apply when making planning decisions that affect an urban environment.

The following is an assessment of the relevant objectives and policies of the NPS-UD in respect to Sunfield.

Objectives	
Objective	Comment
Objective 1: New Zealand has well-functioning urban environments that enable all people and communities to provide for their social, economic, and cultural wellbeing, and for their health and safety, now and into the future.	The proposal will provide for a well-functioning urban environment given that employment areas, healthcare, schools, open spaces and local services are all easily accessible by walking, cycling and public transport. Natural hazards, particularly flooding, will be mitigated through the proposed stormwater channels and wetlands. Accessibility to public transport will be provided, through the Sunbus autonomous electric vehicle shuttle fleet to the Takanini and Papakura rail stations which are within close proximity.
Objective 2: Planning decisions improve housing affordability by supporting competitive land and development markets.	The proposal will open up and make available approximately 244.5 hectares of land with 3,854 individual healthy homes and living units. This will improve housing stock and affordability by supporting competitive land and development markets.

Objective 3: Regional policy statements and district plans enable more people to live in, and more businesses and community services to be located in, areas of an urban environment in which one or more of the following apply: a) the area is in or near a centre zone or other area with many employment opportunities b) the area is well-serviced by existing or planned public transport c) there is high demand for housing or for business land in the area, relative to other areas within the urban environment	Whilst this objective is targeting plan change decisions, it is noted that Sunfield will have its own Town Centre and Local Centres, and it is located approximately 2.5kms from the Papakura Town Centre zone and 9kms from Manukau Metropolitan Centre zone. The area is well serviced by public transport with the rail stations being approximately 2-2.5km away, and there is high-demand for housing within the South Auckland catchment.
Objective 4: New Zealand's urban environments, including their amenity values, develop and change over time in response to the diverse and changing needs of people, communities, and future generations.	The proposal will create an urban environment which has high amenity levels through its Open Space network, and provides a unique and diverse approach to the creation of a community which can live, work and play in the immediate vicinity.
Objective 5: Planning decisions relating to urban environments, and FDSs, take into account the principles of the Treaty of Waitangi (Te Tiriti o Waitangi).	Engagement with mana whenua has been an integral part of the development of the proposal, as outlined in the Mana Whenua / Māori Engagement Report (Document 5). Iwi are very supportive of Sunfield, recognising the sustainable principles and practices underpinning the development, particularly the management of stormwater.
Objective 6: Local authority decisions on urban development that affect urban environments are: a) integrated with infrastructure planning and funding decisions; and b) strategic over the medium term and long term; and c) responsive, particularly in relation to proposals that would supply significant development capacity.	The integration of infrastructure is a key component of the proposal, which includes the stormwater network, roading upgrades, and public transport. It is noted that the applicant will fund the bulk and network infrastructure and will enter into funding agreements with Auckland Council and key delivery partners. Mill Road has been announced as a Road of National Significance within the Government Policy Statement on Land Transport 2024-34, with

	Sunfield providing the opportunity for the Mill Road extension to be in close proximity and integrated into a significantly populated development. Objective 6(c) also requires local authorities to be responsive when significant development capacity is proposed. It is considered that this is a unique opportunity for a significant development which can be planned and managed in an integrated way given its scale. Sunfield is in an area appropriate for growth and the key planning implications can be managed and mitigated.
Objective 7: Local authorities have robust and frequently updated information about their urban environments and use it to inform planning decisions.	N/A
Objective 8: New Zealand's urban environments: a) support reductions in greenhouse gas emissions; and b) are resilient to the current and future effects of climate change.	The proposal promotes a reduction in greenhouse gases through: • Employment area, healthcare, schools, open spaces and local services all being easily accessible by walking, cycling and public transport. • Prioritising clean and affordable energy. The energy requirements of Sunfield will mostly be filled with onsite solar power and energy storage solutions throughout the community. • Low emission vehicles are promoted with community transport in Sunfield being provided by the Sunbus autonomous electric vehicle shuttle fleet. • A proposal and layout which substantially restrict private vehicle usage. • A significant amount of planting is also proposed within the open space network.

Policies	
Policy	**Comment**
Policy 1: Planning decisions contribute to well-functioning urban environments, which are urban environments that, as a minimum: a) have or enable a variety of homes that: (w) meet the needs, in terms of type, price, and location, of different households; and (ii) enable Māori to express their cultural traditions and norms; and b) have or enable a variety of sites that are suitable for different business sectors in terms of location and site size; and c) have good accessibility for all people between housing, jobs, community services, natural spaces, and open spaces, including by way of public or active transport; and d) support, and limit as much as possible adverse impacts on, the competitive operation of land and development markets; and e) support reductions in greenhouse gas emissions; and f) are resilient to the likely current and future effects of climate change.	The proposal will provide a variety of homes with good accessibility to employment, community services and natural spaces. The design also supports the reduction of greenhouse gases through the proximity of activities and electric buses, whilst being resilient to climate change with the proposed stormwater channel mitigating potential flooding effects.
Policy 2: Tier 1, 2, and 3 local authorities, at all times, provide at least sufficient development capacity to meet expected demand for housing and for business land over the short term, medium term, and long term	Given the scale of the proposal at 244.5 hectares, it will significantly support the creation of sufficient development capacity in the region.
Policy 3: In relation to tier 1 urban environments, regional policy statements and district plans enable:	Whilst this policy is targeting plan change decisions, it is noted that this area is a greenfield development and not within an existing urban

a) in city centre zones, building heights and density of urban form to realise as much development capacity as possible, to maximise benefits of intensification; and b) in metropolitan centre zones, building heights and density of urban form to reflect demand for housing and business use in those locations, and in all cases building heights of at least 6 storeys; and c) building heights of at least 6 storeys within at least a walkable catchment of the following: *(c)* existing and planned rapid transit stops (ii) the edge of city centre zones (iii) the edge of metropolitan centre zones; and d) within and adjacent to neighbourhood centre zones, local centre zones, and town centre zones (or equivalent), building heights and densities of urban form commensurate with the level of commercial activity and community services.	environment, and considers the context of the surrounding area. It is also recognised that due to geotechnical conditions, the building height will generally allow for two to three storey buildings. Buildings within the Town Centre will have a maximum height of approximately 20 metres to allow for an efficient use of land, recognising the geotechnical conditions can be mitigated through the use of large floor plates dispersing the weight of the building over a greater area.
Policy 4: Regional policy statements and district plans applying to tier 1 urban environments modify the relevant building height or density requirements under Policy 3 only to the extent necessary (as specified in subpart 6) to accommodate a qualifying matter in that area.	N/A
Policy 5: Regional policy statements and district plans applying to tier 2 and 3 urban environments enable heights and density of urban form commensurate with the greater of: a) the level of accessibility by existing or planned active or public transport to a	N/A, with Auckland being a Teir 1 local authority.

range of commercial activities and community services; or b) relative demand for housing and business use in that location.	
Policy 6: When making planning decisions that affect urban environments, decision-makers have particular regard to the following matters: a) the planned urban built form anticipated by those RMA planning documents that have given effect to this National Policy Statement b) that the planned urban built form in those RMA planning documents may involve significant changes to an area, and those changes: (i) may detract from amenity values appreciated by some people but improve amenity values appreciated by other people, communities, and future generations, including by providing increased and varied housing densities and types; and (ii) are not, of themselves, an adverse effect c) the benefits of urban development that are consistent with well-functioning urban environments (as described in Policy 1) d) any relevant contribution that will be made to meeting the requirements of this National Policy Statement to provide or realise development capacity e) the likely current and future effects of climate change.	The proposal currently sits within a rural zoning, meaning a significant change to the area. The amenity values associated with the current environment will be different to the proposed environment recognising the significant contribution made to development capacity. The new community being created will have a high level of amenity when considered in an urban context. As mentioned under Objective 8, the proposal has considered the likely current and future effects of climate change.
Policy 7: Tier 1 and 2 local authorities set housing bottom lines for the short-medium term and the	N/A

long term in their regional policy statements and district plans.	
Policy 8: Local authority decisions affecting urban environments are responsive to plan changes that would add significantly to development capacity and contribute to well-functioning urban environments, even if the development capacity is: a) unanticipated by RMA planning documents; or b) out-of-sequence with planned land release.	Whilst this policy is targeting plan change decisions, the policy is important to note, as the land is currently zoned Rural and Future Urban and is not identified within the Future Development Strategy (FDS), see section 9.2 of this report. The FDS assessment highlights that the lack of identification is not an impediment to development, given the proposal will make a significant contribution to development capacity in the Auckland Region and will contribute to a well-functioning environment. Therefore, whilst Sunfield is unanticipated by the relevant planning documents, as per Objective 6(c) this is a unique opportunity to be responsive to a significant development which can be planned and managed in an integrated way, with the environmental effects being appropriately mitigated, recognising that this is not a plan change proposal.
Policy 9: Local authorities, in taking account of the principles of the Treaty of Waitangi (Te Tiriti o Waitangi) in relation to urban environments, must: a) involve hapū and iwi in the preparation of RMA planning documents and any FDSs by undertaking effective consultation that is early, meaningful and, as far as practicable, in accordance with tikanga Māori; and b) when preparing RMA planning documents and FDSs, take into account the values and aspirations of hapū and iwi for urban development; and c) provide opportunities in appropriate circumstances for Māori involvement in	As per Objective 5, engagement with mana whenua has been an integral part of the development of the proposal.

decision-making on resource consents, designations, heritage orders, and water conservation orders, including in relation to sites of significance to Māori and issues of cultural significance; and d) operate in a way that is consistent with iwi participation legislation.	
Policy 10: Tier 1, 2, and 3 local authorities: a) that share jurisdiction over urban environments work together when implementing this National Policy Statement; and b) engage with providers of development infrastructure and additional infrastructure to achieve integrated land use and infrastructure planning; and c) engage with the development sector to identify significant opportunities for urban development.	N/A
Policy 11: In relation to car parking: a) the district plans of tier 1, 2, and 3 territorial authorities do not set minimum car parking rate requirements, other than for accessible car parks; and b) tier 1, 2, and 3 local authorities are strongly encouraged to manage effects associated with the supply and demand of car parking through comprehensive parking management plans.	The proposal will limit the parking spaces available within Sunfield and in turn dictate demand, with a core "Sunfield Design Principle" being to 'Enable car-less living'. As outlined within the Masterplan (Document 3a), *'A key tenet of the overall Masterplan is to create safe walkable neighbourhoods that promote a way of living that is not reliant on private motor vehicles. As such private vehicle ownership will be restricted to a ratio of 1 car per 10 housing units. Visitor parking will be provided at the same ratio. Parking for both residents and visitors will be provided at the*

	Community and Mobility Hubs, all of which are located on the Sunfield Loop.'[69] Residents with parking spaces will be able to park at the hubs (as well as access shared vehicles) and then move through the neighbourhoods to their houses via walking, cycling, or autonomous vehicle drop off. Access within the neighbourhoods for vehicles (private, shared, taxi, uber etc.) is restricted to the primary 16m loop lanes with only limited loading and drop off points and no parking other than for temporary service vehicles. No parking is provided outside of the Community and Mobility Hubs.'

A key implementation method of the NPS-UD, as per Part 3, is the creation of the Auckland Council Future Development Strategy (FDS) which has been assessed under section 9.2 of this report.

Based on the above assessment, and further analysis later in this report, it is considered that the Sunfield proposal will give effect to the NPS-UD. In particular, the proposal will:

- create a well-functioning urban environment;
- provide appropriate self-funded infrastructure;
- significantly contribute to development capacity in the region;
- support reductions in greenhouse gas emissions;
- be resilient to the current and future effects of climate change; and
- take into account the principles of the Treaty of Waitangi (Te Tiriti o Waitangi).

8.2 National Policy Statement on Freshwater Management 2020 (NPS-FM)

The NPS-FM objectives and policies endeavour to ensure that natural and physical resources are managed in a way that prioritises the health and well-being of waterbodies and freshwater ecosystems first, followed

[69] Concept Masterplan dated January 2025, Document 3a, Page 16

by the health needs of people, and then the ability of people and communities to provide for their social, economic, and cultural well-being, now and in the future. In particular, the NPS-FM seeks to protect natural wetlands, rivers, outstanding waterbodies and habitats of indigenous freshwater species.

In the context of Sunfield, the Ecology Baseline Report undertaken by Bioresearches submitted with this application (Document 34), provides an assessment of the current freshwater ecological values within Sunfield.

This is summarised within section 7.11 of this report, and highlights that natural streams (primarily Watercourse 2) and a natural wetland are located in the south-eastern portion of the site (Sunfield South). These will be protected and enhanced as part of Sunfield. Over time the wetlands, conveyance channels and streams, with the associated planting, will see the creation of an environment with high ecological value.

Overall, it is considered that the approach taken will enable the efficient development of a well-functioning environment while protecting and enhancing the existing freshwater network within the catchment, in line with the anticipated outcomes of the NPS-FM.

8.3 National Environmental Standards for Freshwater 2020 (NESF)

The NESF sets requirements for carrying out certain activities that pose risks to freshwater and freshwater ecosystems, particularly earthworks and vegetation removal in close proximity to natural inland wetlands.

As outlined elsewhere in this report, including section 8.2 above, the natural inland wetlands will be protected and enhanced as part of this proposal, with drainage of the natural inland wetland not being proposed.

Earthwork activities and vegetation clearance for the restoration of the natural inland wetland are generally not intended to occur within 10m of the natural inland wetland, however, it is anticipated that a small amount of earthworks and vegetation clearance may occur within this 10m threshold. This is a restricted discretionary activity pursuant to regulation 39 of the NESF, as the area of earthworks may be in excess of the lesser of 500m^2 or 10% of the area of the natural inland wetland. This has been applied for out of an abundance of caution.

The construction of a wetland utility structure (footpaths, boardwalks and bridges) is proposed to occur within the natural inland wetland within Wai Mauri Stream Park. Regulation 42 of the NESF states that the construction of a wetland utility structure is a restricted discretionary activity when vegetation clearance or

earthworks/land disturbance is required within 10m of a natural inland wetland. When the wetland utility structures are constructed, this will be undertaken for only as long as necessary, with the bed profile and hydrological regime of the natural inland wetland being returned to its original condition.

As outlined in section 7.17, the effects from the proposed earthworks will be managed and controlled, with conditions of consent proposed to mitigate these effects, including a detailed erosion and sediment control plan to be submitted prior to each stage.

The planting of indigenous species in the riparian margins of streams and natural wetlands will also occur, which will help maintain the water quality within these freshwater environments.

8.4 National Policy Statement on Indigenous Biodiversity 2023 (NPS – IB)

The NPS-IB is a recently introduced policy statement that seeks to prioritise the mauri and intrinsic value of indigenous biodiversity and recognise people's connections and relationships with it. It also seeks to recognise that the health and wellbeing of people and communities is dependent on the health and wellbeing of indigenous biodiversity and that in return people have a responsibility to care for and nurture it. The NPS-IB also seeks that the interconnectedness between indigenous species, ecosystems, the wider environment, and the community, at both a physical and metaphysical level are acknowledged.

The NPS-IB requires the identification of Significant Natural Areas (SNA's) in Council's planning documents and their consideration where they are affected by subdivision, use and development. Council is still considering its requirements and the approach required to give effect to it. However, it is noted that the current AUP identifies Significant Ecological Areas (SEAs) and the criteria used to establish these are likely to be similar to that required under the new NPS-IB to identify SNAs. It is noted that there are no areas of significant ecological value or SEAs identified within the Unitary Plan for Sunfield.

Section 3.16 of the NPS-IB outlines that any development outside of an SNA which has significant adverse effects on indigenous biodiversity must be managed by applying the effects management hierarchy.

The Ecology Report submitted with this application (Document 34), outlines the ecological baseline of the proposal area. Key aspects to note, as per section 7.11 are the generally low current ecological values of the area that the natural streams (primarily Watercourse 2) and natural wetland in the south-eastern portion of the site (Sunfield South) will be protected and enhanced (formally to be known as 'Wai Mauri Stream Park').

Given the above, it is considered that Sunfield is consistent with the NPS-IB.

8.5 National Policy Statement for Highly Productive Land (NPS-HPL)

An assessment of the proposal area against the NPS-HPL has been undertaken by Landsystems (Document 28).

Section 7.10 of this report provides summarises the impacts of the potential loss of productive land based on these assessments.

The Landsystems report concludes:

'The highly productive land on the Sunfield site is LUC class 2 and 3 land but the site does not contain any LUC class 1 land.

The poorly drained soils (LUC units 3w2 and 2w2) on the site, although considered highly productive land, are not suitable for intensive horticulture crops requiring deep, well drained soils.'[70]

The report expands upon this point and states that although the land on the Sunfield site is classed as NPS-HPL highly productive land, the majority of the soils (excepting the areas of LUC 2s4) on the site have heavy clay soil textures (LUC 2e5 and 3e4) and/or wetness limitations (LUC 3w2 and 2w2) that restrict the range of primary production land uses that would be viable. For these areas, cultivation during wetter periods is not sustainable and the soils are not suitable for deeper rooting horticultural crops requiring deep, friable, well drained soils (i.e. the range of sustainable land uses is restricted).

The highly productive land areas that are moderately well to well drained (LUC 2s4) do have soils suited to vegetable production and deep rooting horticulture. However, individually they are limited in area and use of these areas for such primary production enterprises is not considered to be practical. Additionally, the areas are isolated from other land with similar characteristics. They are surrounded by areas that have heavy clay soil textures (LUC 2e5 and 3e4) or are poorly drained (LUC 2w2 and 3w2) highly productive land. The soil wetness limitations, and limited distribution of the well drained soils reduce the productive potential of the highly productive land on the site as a whole.

Therefore, based on this report, it is considered that the land subject to this proposal, when reviewed in detail, is generally land not of high production value given the heavy clay soil textures and wetness limitations. Urbanisation is therefore considered an appropriate land-use recognising the surrounding

[70] Landsystems Report dated 25/11/24, Document 28, Section 10, Page 14

residential areas and airport, and low agricultural productivity and economic viability, with the effects associated with a loss of productive land being mitigated by an alternative, more appropriate land-use.

Clause 3.10 of the NPS-HPL provides for highly productive land to be subdivided, used or developed for non-productive activities under certain circumstances. It is considered that Sunfield satisfies the requirements of Clause 3.10 and can be developed and used for urban purposes for the following reasons:

- The soil base of the land is peat and this presents a permanent long term constraint on the use of the land for productive purposes. This is supported by the current use of the land which is largely fallow with intermitted horse grazing. These activities do not result in an economically viable productive use of the land.

- There are areas of poorly drained soil subject to high water tables, non-point source animal discharges, fertiliser leaching and occasional runoff. There may be an improvement in water quality from housing, stormwater management and riparian works.

- Based on the NPS-HPL classification included in section 2.6 of this report, there is limited opportunity for amalgamation of the NPS-HPL highly productive land on the site with other surrounding highly productive land, particularly given the urban areas to the west and south, and Ardmore Airport with associated urban development to the east.

- The poorly drained soils (LUC 3w2 and 2w2), although considered highly productive land, are not LUC class 1 land (with deep and well drained soils) and are of lesser productive value and not suitable for intensive horticulture crops requiring deep, well drained soils.

- Given the location of the site (adjoining existing and future urban development and other surrounding areas of non-highly productive land) the loss of the site from production would not result in significant further fragmentation of surrounding highly productive land nor would it result in significant loss of productive capacity of highly productive land in the Auckland Region or the district.

- The Sunfield site is located adjacent existing urbanised land and to the west of the Ardmore Airport. Therefore, urbanisation of the land will not result in reverse sensitivity effects on surrounding land-based primary production as there are limited large scale active farming operations in the vicinity. Further, the scale and intensity of development proposed will ensure that the proposed urban activities will not dominate or compromise activities on nearby rural land.

- Whilst the above considerations do not take into account the potential economic benefits of using the land for urban land-use (as per clause 3.10(3)(a)), it is however considered that the environmental, social, cultural and economic benefits of the subdivision, use, or development outweigh the long-term environmental, social, cultural and economic costs associated with the loss of highly productive land for land-based primary production. This is supported through the economic assessment provided with this application which sets out the significant benefits that will result from this application, including the provision of much needed 4,000 dwellings in close proximity to rail stations.

- As stated above in this assessment and in the Landsystems report, alternative forms of productive use have been considered but are not considered to be viable on this land. Therefore, in accordance with clauses 3.10(2) to (4), it is considered that there aren't any reasonably practicable options that would retain the productive capacity of the land.

- It is considered that the regional benefits of the proposal, as outlined in section 6.1.4 of this report, outweigh the loss of this particular 'highly productive land' for the reasons outlined above, and that the loss of this land for rural pastoral purposes with stock traversing the site is a proportionate response given the benefits derived from Sunfield.

In summary, it is considered that the land subject to this proposal when reviewed in detail is generally land not of high value, with urbanisation being an appropriate use, and the proposal is therefore not contrary to the NPS-HPL. The proposed urbanisation and subdivision of the land can be progressed as Clause 3.10 of the NPS: HPL is satisfied.

8.6 New Zealand Coastal Policy Statement

The New Zealand Coastal Policy Statement (NZCPS) is not considered relevant to this application. The purpose of the NZCPS is to state policies in order to achieve the purpose of the RMA, in relation to the coastal environment. The proposal is not within the coastal environment and does not include any part of the Coastal Marine Area. However, the potential for adverse effects on the downstream environment have been considered through this application with regard to comments on the stormwater management measures in section 7.4 of this report, recognising the ultimate discharge of stormwater to Pahurehure inlet in the Manukau Harbour. Accordingly, the proposed is not inconsistent with the NZCPS.

8.7 National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health 2011 (NESCS)

As outlined under section 5.3 of this report, the proposal requires consent under the NESCS. A contamination report has been provided (Document 32), which contain PSIs (Preliminary Site Investigation), DSIs (Detailed Site Investigation), and a covering report providing an over-arching summary.

The proposed works include land that is 'a piece of land' that is acknowledged to have had an activity or industry described in the Hazardous Activity and Industry List (HAIL) which is likely to have been undertaken on the land.

The results of the DSIs conclude that elevated concentrations of contaminants, and therefore the regulations of the NESCS will be triggered by future residential development of the properties at 508 Old Wairoa Road, 80 Hamlin Road and 279 Airfield Road.

Future residential development of the remaining properties of Sunfield for which DSIs have not yet been conducted, with PSIs not stating that it is highly unlikely that there will be a risk to human health.

Section 7.19 within the effects assessment outlines that a large volume of information within these contamination reports exist, which includes the likely activities which may cause contamination, concentration levels of contaminants where DSIs have been undertaken, and remediation measures contained within Remediation Action Plans and Site Management Plans to manage and remove contamination on site.

Overall, the potential effects associated with undertaking the proposed remediation works on human health are able to be appropriately managed by way of conditions of consent in the short-term, and will contribute positively in the long-term once the site is fully remediated.

9 AUCKLAND STRATEGIC PLANNING AND STATUTORY PLANNING ASSESSMENT

9.1 The Auckland Plan

The Auckland Plan 2050, prepared under section 79 of the Local Government (Auckland Council) Act 2009, is a relevant strategy document that should be appropriately considered.

The Auckland Plan 2050 is the council's spatial plan and contains the Future Development Strategy (FDS) for the region, largely based on a quality compact approach to accommodating growth. This approach anticipates development in areas that are easily reached by public transport, walking and cycling, which are within reasonable walking distance of services and facilities including centres, community facilities, employment opportunities and open space.

The Auckland Plan 2050 is set out in relation to six outcomes, each with a series of directions and focus areas. The outcomes particularly relevant to Sunfield are Homes and Places, Transport and Access, and Environment and Cultural Heritage. The below paragraphs provide an assessment of Sunfield against these outcomes and directions.

Outcome: Homes and Places

Direction 1 – Develop a quality compact urban form to accommodate Auckland's growth and support a low carbon future.

- The Sunfield site is a logical area to develop with it being the next block to the east of the existing urban areas of Takanini and Papakura, and north of the urban area adjacent to Old Wairoa Road. This area of appropriate urban growth is then bordered to the west by Ardmore Airport, and to a lesser extent Hamlin Road/Airfield Road, which creates a logical edge for growth.

- A fundamental principle of the proposal is to 'Enable Car-less Living' which requires embedding the requirements for daily life within close proximity to minimise the need for longer distance travel. Where travel is required, Sunfield provides viable, efficient, and affordable alternatives that are preferable to owning and running a private motor vehicle, such as direct connections to the nearby train stations.

This therefore allows people to live and work locally given the employment zones, healthcare, schools, open spaces and local services within the proposal which are easily accessible by walking, cycling and public transport. This in turn reduces carbon emissions with the proposal providing 460,000 sqm of employment, healthcare and education buildings.

- The delivery of infrastructure will be cost effective noting the proposal will build on existing infrastructure provision such as the Awakeri Wetlands, with the roading network transversing the project area north/south and west/east to existing road networks.

Direction 2 – Accelerate the construction of quality homes that meets Aucklanders' changing needs and preferences.

- Due to geotechnical constraints, buildings and homes will generally be two levels, however, different typologies will be provided for including terraced housing, stand-alone dwellings and retirement villages to meet Aucklanders' changing needs.

Direction 3 – Shift to a housing system that ensures secure and affordable homes for all.

- The proposal will add housing stock to the market with 3,854 healthy homes, consisting of individual homes and 3 retirement villages with independent living units.

- Energy efficiency is a core part of Sunfield, by building healthy homes and buildings requiring less heating and utilising technology to enable residents to live smarter, demanding less electricity. Prioritising clean and affordable energy, the energy requirements of Sunfield will mostly be filled with onsite solar power and energy storage solutions throughout the community.

- As per the principle 'Diverse Lifestyle Choices', Sunfield will provide for a diverse community with different housing typologies of different sizes and scale including retirement villages, whether they be first home buyers, families, renters or retirees.

Direction 4 – Provide sufficient public places and spaces that are inclusive, accessible and contribute to urban living.

- The proposal provides a significant open space network with 25.6 hectares of open spaces, green links, recreation parks and reserves meaning each residential dwelling will have green space within walking distance.

- Sunfield has been designed so that large areas of open space are located outside of the ONB 55 dB Ldn contour, to the north-west and south-east providing for passive recreation and allowing people to enjoy the outdoors.

- Sunfield will also provide a Town Centre and Local Hubs with inclusive and accessible public spaces within walking and cycling distance from residential homes.

Outcome: Transport and Access

Direction 1 – Maximise safety, environmental protection and emissions reduction.

- The proposal will reduce the reliance on cars and support people to walk, cycle and use public transport, thus reducing emissions.

- Low emission vehicles are promoted with community transport in Sunfield being provided by the Sunbus autonomous electric vehicle shuttle fleet which accommodates the needs and facilitates the trips of its residents with continuous operation. The vehicles will travel around the Sunfield Loop, transporting people to and from their homes, places of work, education, recreation and other amenities within the development. These autonomous vehicles will also provide fast and efficient transport to Papakura Train Station and town centre in the first stage, and to Takanini Train Station and town centre in later stages.

- The Sunfield Loop provides all users of the transport system safe access through minimising crossings and avoiding conflicts between movement modes, as indicated in Figure 52 below.

Figure 52: Sunfield Loop – Typical Cross Section *(Source: Masterplan)*

Direction 2 – Better connect people, places, goods and services.

- The proposal provides 460,000 sqm of employment, healthcare and education buildings and 5 retail hubs located throughout the community, connecting people, goods and services. The Sunbus autonomous electric vehicle shuttle fleet will also connect residents further afield and to the wider network by providing fast and efficient transport to Papakura Train Station and town centre in the first stage, and to Takanini Train Station and town centre in later stages.

Direction 3 – Increase genuine travel choices for a healthy, vibrant and equitable Auckland.

- As mentioned previously, a variety of travel choices are provided for and enabled by Sunfield. Streets are also to be used for a number of purposes and are attractive, suitable and enjoyable public spaces for residents, workers and visitors, particularly when travelling by foot.

<u>Outcome: Environment and Cultural Heritage</u>

Direction 1 – Ensure Auckland's natural environment and cultural heritage is valued and cared for.

- As identified in the Ecology Report (Document 34), the current ecological values of the proposal area are largely limited to planted exotic vegetation and low-ecological value managed pasture. The

freshwater values are limited to artificial watercourses to facilitate farm drainage, with natural watercourses and inland wetlands being protected and enhanced.

- The proposal provides for a significant open space network, including stormwater parks and stream parks as well as a wetland park in the north-western corner, and is the catchment for the stormwater system. Significant planting is also proposed in these areas to create a self-sustaining habitat for native fauna, with riparian planting adjacent to waterways. This will enhance the natural environment whilst providing passive recreational space for the local community.

Direction 2 – Apply a Māori world view to treasure and protect our natural environment (taonga tuku iho)

- The natural environment is to be preserved and enhanced through appropriate stormwater management to ensure a high level of water quality. Riparian planting alongside the natural wetlands, streams and stormwater channels are proposed to enhance biodiversity and support the control of water flows and quality.

- Sunfield will be a low carbon development, with sustainability being a key principle, through enabling car-less living, the Sunbus autonomous electric vehicle shuttle fleet, and a renewable energy network.

- Significant engagement has occurred with mana whenua, which has influenced the design of Sunfield, particularly the Wai Mauri Stream Park Remediation Plan.

Direction 3 – Use Auckland's growth and development to protect and enhance the natural environment.

- Sustainable environmental practices have been embedded into the proposal through the creation of green infrastructure as outlined under Direction 1.

- The 'Enable Car-less Living' principle will ensure longer term protection of the natural environment through lowering emissions, and using technology such as the Sunfield Renewable Energy Network.

Direction 4 – Ensure Auckland's infrastructure is future-proofed.

- The proposed stormwater network is a long-term water sensitive solution and ensures that flooding is alleviated within the surrounding area.

- Transport infrastructure has been designed to ensure that appropriate connections are established to the main rail network, which will ensure growth in the transport network is sustainable and future proofed.

- Mill Road has recently been announced as a Road of National Significance within the draft Government Policy Statement on Land Transport 2024-34, with Sunfield providing the opportunity for the Mill Road extension to be in close proximity and integrated into a significantly populated development.

Conclusion

The 'Sunfield Design Principles' outlined within section 3 highlight that sustainability and long-term thinking are at the core of the proposal. Sunfield is consistent with and strongly aligned to the outcomes sought by the Auckland Plan.

9.2 Future Development Strategy (2023)

The FDS, which is a requirement of the National Policy Statement on Urban Development (**NPS-UD**), sets out how Auckland is envisaged to grow and change over the next 30 years, with a need to plan infrastructure and provide quality urban environments with good access to public transport, jobs and facilities.

The FDS was adopted by Auckland Council in November 2023, and replaces the previous Future Urban Land Supply Strategy 2017 (**FULSS**). The FDS was developed in a context where:

a) Auckland Council faced some significant budgetary constraints in being able to finance infrastructure related to future growth. The FDS essentially deferred a number of greenfield development areas so as to match the pace at which the Council could fund the necessary infrastructure to service those areas. The FDS does, however, identify an alternate path where the private sector can fully fund infrastructure such that it does not impact the Council's debt position. In those circumstances, the FDS identifies that release of areas, subject to meeting other requirements, can be brought forward.

b) Significant issues with stormwater management and flood prone areas had been identified through the peak storm events of January and February 2023. The FDS therefore introduces a higher level of scrutiny for development in flood plain areas.

There have been other factors needing consideration when updating the FDS, primarily central government legislative change including the National Policy Statements on Urban Development, Freshwater Management, Highly Productive Soils and Biodiversity, which have been assessed under section 8 of this report.

FDS Principles

The FDS at section 2.5 identifies the principles for growth and changes:

A well-functioning urban environment for Tāmaki Makaurau as a city and region is one which continues to develop in a quality compact form and follows these five principles to guide its growth and development.

- Principle 1: Reduce greenhouse gas emissions
- Principle 2: Adapt to the impacts of climate change
- Principle 3: Make efficient and equitable infrastructure investments
- Principle 4: Protect and restore the natural environment
- Principle 5: Enable sufficient capacity for residential and business growth in the right place and at the right time.

Whilst these principles have been used at a macro level for the whole of Auckland and the creation of the spatial response to growth and change, it is considered to be a worthwhile exercise assessing these principles in the context of Sunfield. The following table therefore provides this summary:

Principle 1: Reduce greenhouse gas emissions		
Reference	**Principle**	**Comment**
1(a)	Intensify the existing urban areas and limit further urban expansion	Sunfield is currently zoned Future Urban and Mixed Rural and is therefore a greenfield development. The general concern with greenfield development is the production of more emissions due to vehicle movements and less available public transport, with poor accessibility to jobs, education and other services. As highlighted previously, the Sunfield proposal has good access to the wider transport network, with jobs, education and local services all within a short distance. This area has been omitted from previous growth strategies, primarily due to a larger flood plain impacting the site. As outlined

		in section 7.4 of this report, a solution to the flooding issue has been developed, meaning this is now considered a logical area for intensification. The loss of a rural environment and rural productivity is largely mitigated recognising that the area is bounded by an urban area to the south and west, making it a logical area to urbanise. The Productive Soils Reports undertaken by Landsystems (Document 28) conclude that, whilst the site contains 'highly productive land', it has limitations due to heavy clay soil textures and wetness due to poorly drained soils. An absence of LUC Class 1 soils and the location of the land adjacent to an urban area makes it a good candidate for urban intensification.
1(b)	Strengthen accessible, walkable and mixed-use neighbourhoods	The proposal provides for employment hubs, local services and educational facilities all within close proximity and accessible by active modes and public transport, which will create a thriving and resilient community. This is therefore considered to be an appropriate land-use change with investment in infrastructure, services, public spaces and streets which will create a well-functioning environment.
1(c)	Bring jobs and homes closer together	As outlined previously in this report, a fundamental principle of the proposal is to 'Enable Car-less Living' which requires embedding the necessities for daily life within close proximity to minimise the need for longer distance travel. Where travel is required, Sunfield provides viable, efficient, and affordable alternatives that are preferable to owning and running a private motor vehicle, such as direct connections to the nearby train stations.
Principle 2: Adapt to the impacts of climate change		
Reference	**Principle**	**Comment**
2(a)	Avoid further growth in areas exposed to hazards and promote resilient design solutions	Sunfield is located in a large flood plain. As outlined within the Three Waters Strategy Report and Stormwater Modelling Report (Document 7), an engineering solution can be achieved to alleviate the flood risk, at the expense of the applicant. This can be achieved through an integrated catchment response across the 244.5

		hectare proposal area, aligning to the Awakeri Wetlands in the south and south-west, and is a similar proven solution to Stage 1 of Awakeri Wetlands. Downstream floodplains and urban areas have been factored into the stormwater solution with the proposal being delivered at scale, rather than considering mitigation in an ad hoc unplanned manner.
2(b)	Prioritise integrated, nature-based, regenerative and resilient infrastructure	The proposed extension of Awakeri Wetlands will provide a nature-based and resilient solution, which will allow Aucklanders to connect to the environment with significant open space and planting being provided. The infrastructure will also be provided by the applicant.
2(c)	Support communities to develop appropriate adaptation responses in high-risk areas	Given the proposal is a new greenfield development, adaptation for high-risk areas is not required.
Principle 3: Make efficient and equitable infrastructure investments		
Reference	**Principle**	**Comment**
3(a)	Take a regional view to infrastructure investment and costs	It is recognised that Auckland Council needs to make infrastructure investment decisions across the region which provide value for money. However, the bulk and network infrastructure funding for this proposal will be provided for by the applicant.
3(b)	Make the best use of existing infrastructure	The infrastructure required for the proposal will be an extension or connection to existing infrastructure, with the Awakeri Wetlands to the south-west, and existing roads (Pakaraka Drive, Bellbird Street, Cosgrave Road, Walters Road, Hamlin Road, Airfield Road) being extended, upgraded or directly connected.
3(c)	Make investment decisions that deliver on multiple outcomes	As required, the applicant is keen to work with other partners, to deliver value for money on multiple outcomes.
3(d)	Work with the private sector to find new innovative ways to fund infrastructure	The bulk and network infrastructure will be funded by the applicant, recognising that the additional growth will create a larger rating/funding base for future development.

Principle 4: Protect and restore the natural environment		
Reference	**Principle**	**Comment**
4(a)	Protect ecosystems and integrate the natural and built environment	As noted under section 7.11 of this report, the current ecological value of the proposal area is generally low, with the proposal providing good integration between the natural and built environment through the creation of an extensive open space network with streams, wetlands and native planting.
4(c)	Restore and connect ecosystems	The proposal will enable the extension and connection of the Awakeri Wetlands which provides a range of ecological benefits and increased amenity for the community. Sunfield enables the integration of land-use activities and ecological corridors.
Principle 5: Enable sufficient capacity for residential and business growth in the right place and at the right time.		
Reference	**Principle**	**Comment**
5(a)	Provide direction for where and when growth is appropriate	This principle largely focusses on funding and the impact out-of-sequence development has on Council's financial position. Given the applicant will fund the bulk and network infrastructure and will enter into funding agreements with Auckland Council and other key delivery partners, the impacts of out-of-sequence development, such as reprioritisation or deferral of planned projects is notably reduced.
5(b)	Prioritise areas for growth and investment	As per principle 5(a).
5(c)	Enable more housing and business capacity to meet future needs	The proposal will provide, as outlined previously in this report, a significant amount of capacity in a variety of land-uses i.e. residential, business, health and education, all of which will be located within a short distance of one another, and the wider transport network of Papakura and Takanini train stations.

The above table highlights that the proposal is consistent with the FDS principles for growth, also recognising that these principles are aligned to the 'Sunfield Design Principles'.

Spatial Response

Sections 3, 4 and 5 of the FDS outlines the inputs and approach to the spatial response, along with implementation. The below analysis provides the key considerations for the Sunfield proposal in regard to these sections.

Sunfield

The FULSS identified the Cosgrave Road block (56.5 ha of the 244.5ha Sunfield development) as being development ready in 2023 and a part of meeting the Council's growth requirements in the South Auckland area. This is in a location within a moderate proximity to the passenger rail network (2km from Papakura station).

Key to the Cosgrave Road block having a Future Urban zone was the resolution of the flood risk areas. Essentially, the Awakeri Wetland Stage 1 had identified a successful solution to stormwater management west of Cosgrave Road. These wetlands performed to design standards and prevented any flooding of residential areas in the 1:200 year storm event in January 2023.

The Council states it does not have the ability to fund Stages 2 and 3 of the Awakeri Wetlands. This is clearly a prerequisite to urban development of the Cosgrave Road block and as outlined previously in this report, Winton are discussing with Auckland Council entering into an Infrastructure Funding Agreement, which will see the applicant undertake the design and consenting of Stages 2 and 3, and will in turn fund and implement Stages 2, 3, 4 and 5 of Awakeri Wetlands.

Figures 53 and 54 below have been taken from Appendices 6 (Future Urban Infrastructure Prerequisites) and 7 (Future Urban Area Summary) of the FDS. These figures highlight that the Sunfield area (with the exception of the Cosgrave block at 2050+) have not been identified for Future Urban Growth, with key large scale infrastructure needed for the wider Takanini area being Mill Road and the Takaanini Frequent Transit Network.

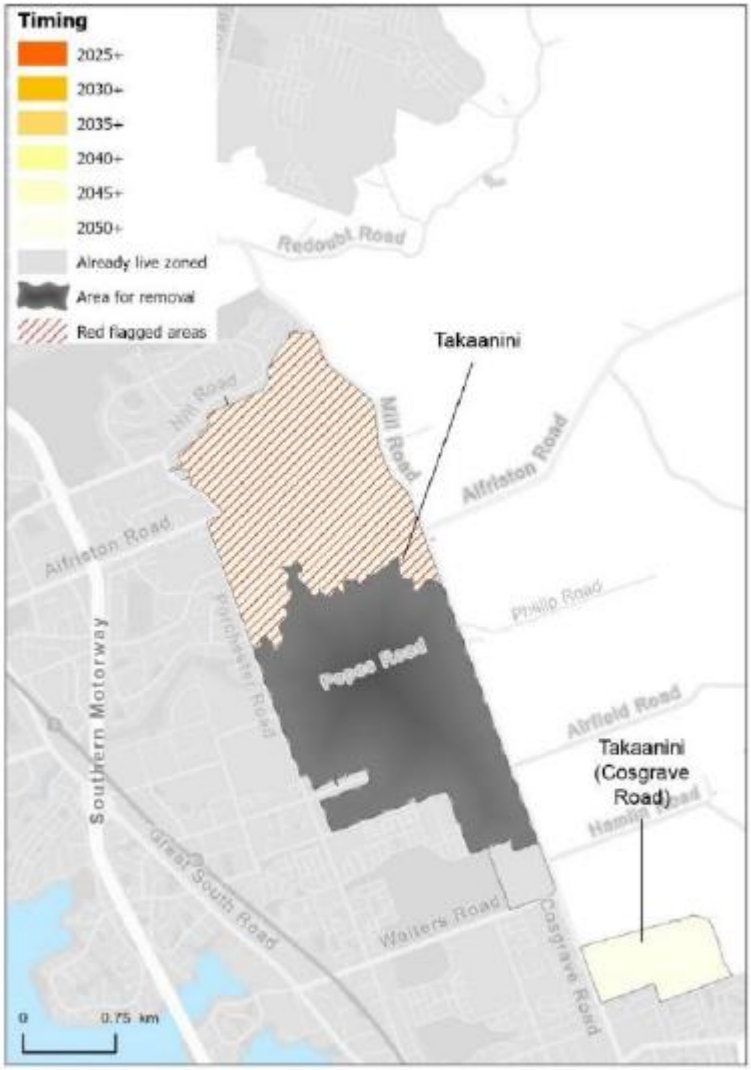

Figure 53: Appendix 7 of FDS – Future Urban Area Summary

Takaanini	Takaanini (Walters Rd)	**Live zoned**	
	Cosgrave Rd (Takaanini)	**Not before 2050+**	Mill Road Takaanini FTN Upgrade
	Takaanini	**Not before 2050+**	Mill Road Takaanini FTN Upgrade

Figure 54: Appendix 6 of FDS – Future Urban Infrastructure Prerequisites

Sunfield addresses all of these factors for the Cosgrave Road block and for the rest of the Sunfield development as per this proposal, in particular:

a) The full funding of Stages 2, 3 and 4 of the Awakeri Wetlands is a core part of this application. This not only delivers the proven stormwater management function but does this in a manner which delivers high amenity and will develop high ecological value as the new planted wetlands establish.

b) This same proven method is expanded north to address the other 188ha of the Sunfield block. The analysis by Maven forming part of this application demonstrates how this method can be expanded successfully north.

c) Mill Road has been announced as a Road of National Significance within the Government Policy Statement on land transport 2024-34, with Sunfield providing the opportunity for the Mill Road extension to be in close proximity and integrated into a significantly populated development

d) The Takaanini Frequent Transit Network (FTN) is a bus route proposed between Drury (a future urban area on the periphery of Auckland) and Manurewa train station (an established urban area in South Auckland). The planned route is to give community access to Drury train stations, Papakura Train Station and Manurewa Train Station.

   The proposed route is therefore within close proximity to Sunfield, with Papakura Train Station a primary destination and the route travelling north along Clevedon Road, Grove Road and Walters Road.

   Notices of Requirement (NoRs) were publicly notified by Council in November 2023, with submissions closing in December 2023. On 21st November 2024, the Commissioners recommended that the NoRs be confirmed, subject to conditions.

   There will still be considerable detailed design and funding considerations required before implementation. However, Sunfield is upgrading the public transport network by providing a direct bus service between Sunfield and the Papakura and Takanini rail stations. This service will not only provide good connections for the residents of Sunfield, but obviously will provide a service for others in the Cosgrave area.

Therefore, the deferral of this area being considered acceptable for growth is largely a financially driven decision, not a planning one. Given it is anticipated that the infrastructure funding can largely be resolved, subject to more detailed discussions, Sunfield should return to a more logical and earlier planning development timeline.

Rural Expansion and Greenfield Development

The FDS at section 4.2.3, which covers Rural Areas, states that while it is not envisaged that growth would occur into the rural environment, there are exceptions. The policy states under 'Limiting rural residential growth':

- A proposed Rural Strategy will be prepared that will consider the appropriateness of growth in existing rural towns and settlements and in the interim, merit-based development in areas adjacent to existing towns and settlements will be considered through relevant subsequent planning processes.

- This proposed rezoning can be considered consistent with the FDS policy in terms of rural expansion. This is in the context where 23% of the land is zoned FUZ and identified for development. In fact, were the Council not facing the financial constraints and therefore were able to fund the infrastructure, the rezoning of the Cosgrave block (FUZ land) is likely to have already occurred.

- As outlined under section 7.1 of this report with regard to the 'Urban Growth Pattern', this is a logical area to develop.

- This application puts forward a complete package where the constraints the Council is facing, and hence the reason to defer the 2023 live zoning of the Cosgrave block, are all resolved through the Sunfield proposal.

The analysis demonstrates why Sunfield can appropriately be considered as contemplated in the FDS in that, in a limited number of opportunities, there can be exceptions where further expansion of rural land for urban growth is appropriate. This land is close to rail, well connected and has good topography for urban activity. The primary constraints have been flood management, transport and soils. All three of these are resolved as part of the Sunfield development proposal.

Ardmore Airport

In terms of Ardmore Airport and the FDS, a comparison with other airports in Auckland is appropriate. There are four significant airports within Auckland:

- Auckland International Airport;

- Whenuapai Airbase;
- Ardmore Airport; and
- North Shore Airport.

Key existing growth areas for both business development and residential development are identified adjacent to the Auckland International Airport. The airport is seen as a hub for business with the benefit of co-locating industrial activity adjacent to the airport. Similarly, because of the extensive areas of state housing in Mangere, the area is identified as a key growth area notwithstanding it is in reasonable proximity to the airport and within the noise overlay contours.

Whenuapai Airport is surrounded in the west by rural land (to the east it adjoins the Waitematā Harbour). This land is identified in the FDS as suitable for urban development and targeted for light industrial activity. It is seen as one of the first greenfield developments to proceed under the FDS.

The North Shore airport is similarly surrounded by rural activity. The Council has completed a Structure Plan for Silverdale West which will establish industrial land surrounding three sides of the North Shore airstrip. Again, the opportunity to bring employment and industrial activity adjacent to a major airport hub, as well as providing important employment in the north, is a key factor.

Ardmore Airport itself has recently sought and obtained industrial zoning for a small portion of land to expand on its western periphery, which has a height limit of 20 metres. This does provide helpful employment and business land adjacent to the airport. In a similar manner, Sunfield will expand this industrial land that will provide significant employment opportunities. Demonstrably, as witnessed elsewhere within the region, industrial activity adjacent to an airport is a suitable adjoining land use.

Auckland is short of industrial land. Sunfield, as outlined elsewhere in this application, will provide:

- An important employment area close to Ardmore Airport;
- the opportunity in the future to utilise the airport for freight forwarding purposes;
- close to the rail interchange and Auckland International Airport;
- an opportunity to provide significant employment into the South Auckland area, reducing the need for extensive commuting further north; and
- the public transport network being provided by Sunfield to service residents will also provide a counterflow for employees accessing the new industrial land.

9.3 Regional Policy Statement

The Auckland Unitary Plan: Regional Policy Statement (Chapter B) identifies the following nine issues of regional significance for resource management in Auckland:

- Issue 1 – Urban growth and form
- Issue 2 – Infrastructure, transport and energy
- Issue 3 – Built heritage and character
- Issue 4 – Natural heritage (landscapes, natural features, volcanic viewshafts and trees)
- Issue 5 – Issues of significance to Mana Whenua
- Issue 6 – Natural resources
- Issue 7 – The coastal environment
- Issue 8 – The rural environment
- Issue 9 – Environmental risk

Urban Growth and Form

When considering the scale, significance and characteristics of the site, surrounds and the application, the most relevant issue is Issue 1 – Urban Growth and Form which seeks to provide Auckland's growing population in a way that:

(a) enhances the quality of life for individuals and communities;
(b) supports integrated planning of land use, infrastructure and development;
(c) optimises the efficient use of the existing urban area;
(d) encourages the efficient use of existing social facilities and provides for new social facilities;
(e) enables provision and use of infrastructure in a way that is efficient, effective and timely;
(f) maintains and enhances the quality of the environment, both natural and built;
(g) maintains opportunities for rural production; and
(h) enables Mana Whenua to participate and their culture and values to be recognised and provided for.

The objectives for urban growth in B2.2.1. are set out and analysed below:

Objective	Comment
(1) A quality compact urban form that enables all of the following: (a) a higher-quality urban environment; (b) greater productivity and economic growth; (c) better use of existing infrastructure and efficient provision of new infrastructure; (d) improved and more effective public transport; (e) greater social and cultural vitality; (f) better maintenance of rural character and rural productivity; and (g) reduced adverse environmental effects.	• The proposal will enable a high-quality diverse urban environment in the Takanini area. • As per the Property Economics (Document 16), the potential economic benefits will significantly outweigh the potential economic costs, noting the total impact on business activity within Auckland as a result on Sunfield being around $3.2 billion (Net Present Value). • Existing infrastructure will be utilised, particularly the creation and extension of the Awakeri Wetlands and the existing rail and road networks. • Public transport will be provided as part of the proposal through the Sunbus autonomous electric vehicle shuttle fleet, which will provide connections to the wider transport network and the nearby railway stations. • A community will grow within the Sunfield area, given people will live, work and play in the area with employment, residential, healthcare and education activities provided for which will create social and cultural vitality. • As outlined under section 8.5 of this report and the NPS-HPL analysis, rural productivity will ultimately not be impacted by this proposal.
(c) Urban growth is primarily accommodated within the urban area 2016 (as identified in Appendix 1A).	The area is not identified within the urban area 2016 (Appendix 1A of the AUP), noting that growth strategies have developed and progressed since this period.

(c) Sufficient development capacity and land supply is provided to accommodate residential, commercial, industrial growth and social facilities to support growth.	Sunfield provides 244.5 hectares of land for residential, commercial, industrial and social activities, which is a significant scale in the Auckland context, and adds considerable development capacity to the region.
(4) Urbanisation is contained within the Rural Urban Boundary, towns, and rural and coastal towns and villages.	The southern portion of the proposal area is zoned Future Urban (56.5 hectares) and located within the RUB. The remaining 188 hectares is outside of the RUB and zoned Rural – Mixed Rural Zone. This equates to approximately 23% of the land being within the RUB and 77% outside of the RUB. The area identified as outside of the RUB is due to stormwater and flooding constraints. The 56.5 hectare area of land was zoned Future Urban given the Awakeri Wetlands stormwater solution, which will alleviate the flooding issue in this area. As outlined in section 7.4 of this report, the proposed stormwater channels and wetlands within this proposal will alleviate the flooding issues within Sunfield. With the flooding issue essentially being removed through this new engineering solution, the RUB can be amended in the future to align to the new location of areas prone to flooding and the boundaries of the Sunfield development, if desired.
(5) The development of land within the Rural Urban Boundary, towns, and rural and coastal towns and villages is integrated with the provision of appropriate infrastructure.	• The infrastructure required for the proposal will be an extension or connection to existing infrastructure, with the Awakeri Wetlands to the south-west, and existing roads (Pakaraka Drive, Bellbird Street, Cosgrave Road, Walters Road, Hamlin Road, Airfield Road) being extended or directly connected. • Public transport will be provided as part of the proposal through the Sunbus

	autonomous electric vehicle shuttle fleet, which will provide connections to the wider transport network and the nearby railway stations.

Associated policies that are relevant to this proposed development under B2.2.2. include:

Policy	Comment
Development capacity and supply of land for urban development	
(1) Include sufficient land within the Rural Urban Boundary that is appropriately zoned to accommodate at any one time a minimum of seven years' projected growth in terms of residential, commercial and industrial demand and corresponding requirements for social facilities, after allowing for any constraints on subdivision, use and development of land.	56.5 hectares of land is currently located within the RUB, with an additional 188 hectares currently outside the RUB. The movement of the RUB is logical, given development is anticipated to be appropriate in the location, as outlined in this report. This land will contribute to accommodating a minimum of seven years projected growth at any one time.
(2) Ensure the location or any relocation of the Rural Urban Boundary identifies land suitable for urbanisation in locations that: (a) promote the achievement of a quality compact urban form; (b) enable the efficient supply of land for residential, commercial and industrial activities and social facilities; (c) integrate land use and transport supporting a range of transport modes; (d) support the efficient provision of infrastructure; (e) provide choices that meet the needs of people and communities for a range of housing types and working environments; and (f) follow the structure plan guidelines as set out in Appendix 1; while: (g) protecting natural and physical resources that have been scheduled in the Unitary Plan in relation to natural	Sunfield promotes a quality compact form with its location adjacent to existing urban areas and infrastructure. This will allow for the integration of land-use and transport options, whilst providing the efficient supply of land for different land-use activities. The natural environment will be protected where appropriate, particularly the streams and wetlands in the south-eastern corner of the proposal. The site contains highly productive land which has limitations due to heavy clay soil textures and wetness due to poorly drained soils. An absence of LUC Class 1 soils and the location of the land adjacent to an urban area makes it a candidate for urban intensification.

heritage, Mana Whenua, natural resources, coastal environment, historic heritage and special character; (h) protecting the Waitākere Ranges Heritage Area and its heritage features; (i) ensuring that significant adverse effects from urban development on receiving waters in relation to natural resource and Mana Whenua values are avoided, remedied or mitigated; (j) avoiding elite soils and avoiding where practicable prime soils which are significant for their ability to sustain food production; (k) avoiding mineral resources that are commercially viable; (l) avoiding areas with significant natural hazard risks and where practicable avoiding areas prone to natural hazards including coastal hazards and flooding; and (m) aligning the Rural Urban Boundary with: (i) strong natural boundaries such as the coastal edge, rivers, natural catchments or watersheds, and prominent ridgelines; or (ii) where strong natural boundaries are not present, then other natural elements such as streams, wetlands, identified outstanding natural landscapes or features or significant ecological areas, or human elements such as property boundaries, open space, road or rail boundaries, electricity transmission corridors or airport flight paths.	Awakeri Wetlands is a significant investment and will alleviate flooding in the area and ensure the appropriate treatment of runoff occurs.
(3) Enable rezoning of future urban zoned land for urbanisation following structure planning and plan change processes in accordance with Appendix 1 Structure plan guidelines.	Although this is not a re-zoning proposal, a comprehensive development proposal has been created and is submitted with this application. This is largely in line with Appendix 1 of the Auckland Unitary Plan, particularly: • The consideration of a variety of external documents such as the Auckland Plan, National Policy Statements, integrated catchment plans, and the Future Development Strategy.

	• Urban growth pattern, natural resources, natural and built heritage, land use, transport networks and infrastructure have all been factored into the design response. • Feedback from a variety of stakeholders has been sought in designing Sunfield. • Specialist documents in a variety of disciplines have been utilised to inform the appropriate design and response to the development area and surrounds.
Quality compact urban form	
(4) Promote urban growth and intensification within the urban area 2016 (as identified in Appendix 1A), enable urban growth and intensification within the Rural Urban Boundary, towns, and rural and coastal towns and villages, and avoid urbanisation outside these areas.	The area is not identified within the urban area 2016 (Appendix 1A of the AUP), noting that growth strategies have developed since this period.
(5) Enable higher residential intensification: (a) in and around centres; (b) along identified corridors; and (c) close to public transport, social facilities (including open space) and employment opportunities.	The proposal is within 2km of the rail corridor, and will provide social facilities and employment opportunities, with the centres of Takanini and Papakura also within 2km.
(6) Identify a hierarchy of centres that supports a quality compact urban form: (a) at a regional level through the city centre, metropolitan centres and town centres which function as commercial, cultural and social focal points for the region or sub-regions; and (b) at a local level through local and neighbourhood centres that provide for a range of activities to support and serve as focal points for their local communities.	The proposal will provide a Town Centre and local centres to support the 3,854 independent healthy homes. The scale and proportions of the land-use activities are considered appropriate and will have positive economic impacts, as outlined in the Property Economics report (Document 16).
(7) Enable rezoning of land within the Rural Urban Boundary or other land zoned future urban to accommodate urban growth in ways that do all of the following: (a) support a quality compact urban form;	Sunfield promotes a quality compact form with its location adjacent to existing urban areas and infrastructure. This will allow for the integration of land-use and transport options, whilst providing the

(b) provide for a range of housing types and employment choices for the area; (c) integrate with the provision of infrastructure; and (d) follow the structure plan guidelines as set out in Appendix 1.	efficient supply of land for different land-use activities. Different housing typologies e.g. terraced housing, stand-alone housing, and retirement villages will be provided, recognising there will be limitations in building heights given geotechnical conditions.

Whilst the Urban Growth and Form objectives and policies are considered to be the key matters requiring assessment, there are other objectives and policies contained within the Regional Policy Statement which have relevance, as summarised below:

Issue / Chapter of AUP	Comment
B3 – Infrastructure, transport and energy	As outlined earlier in this report, a variety of infrastructure will be funded and provided for by the Applicant. This includes: • Stormwater channel and wetlands. • New roads within the development and road upgrades surrounding Sunfield. • Cycleways and pedestrian upgrades linking Sunfield to the existing rail stations. • Wastewater and potable water upgrades. • The provision of a bus service to and from Sunfield and the rail stations at Papakura and Takanini. • Solar panels through out the development for a sustainable and environmentally friendly power source. • Enable social infrastructure through open space networks, schools and medical facilities. The above will ensure that the infrastructure provision for Sunfield and the surrounding area is resilient, efficient and effective, whilst providing many benefits such as enabling economic growth, protecting and enhancing the natural environment and providing for the well-being of the community.
B4 – Natural heritage	The natural heritage values of Sunfield are limited, with no outstanding features / landscapes, viewshafts or notable trees. Through the specialist reports, particularly the Baseline Ecology Report (Document 34), it is noted that

	a natural inland wetland and nearby stream, are located on site. These features are to be protected and enhanced as part of the Sunfield proposal.
B5 – Historical heritage and special character	An Archaeological Assessment Report prepared by Clough and Associates Ltd has been undertaken for Sunfield (Document 27). The report advises one recorded archaeological site R11/3435, a villa at 80 Hamlin Road is located within Sunfield. Demolition of the villa at 80 Hamlin Road is proposed, recognising it is situated within the Employment Precinct, and it is therefore challenging to retain such a building which would be out of context within the subject development proposal whilst creating land development inefficiencies. Whilst this building is not a scheduled building under the Auckland Unitary Plan – Operative in Part, an authority issued by Heritage NZ must be obtained, which is not being applied for as part of this regulatory approval.
B6 – Mana Whenua	A Mana Whenua Engagement Report prepared by Navigator (Document 5) outlines the extensive engagement undertaken with Mana Whenua. The overall design of the Sunfield Masterplan has incorporated feedback from Mana Whenua into the proposal, particularly Wai Mauri Stream Park.
B7 – Natural resources	The Baseline Ecology Report (Document 34) has considered the indigenous biodiversity values and freshwater systems within Sunfield. The freshwater systems and biodiversity within Sunfield, including the natural inland wetland and nearby stream, will be maintained and enhanced through retention, appropriate planting and stormwater controls managing water quality. This enhancement will in turn make it an enjoyable environment for passive recreation.
B8 – Coastal environment	Sunfield is not located within close proximity to the coastal environment. Notwithstanding that, appropriate controls will be in place to manage the discharge of stormwater which may ultimately reach the coastal environment.
B9 – Rural environment	The objectives relevant to Sunfield regarding the rural environment relate to the appropriate urbanisation of the rural environment, and land with high productive potential. It is concluded that: • the land is a logical greenfield area to develop. Sunfield is the next block to the east of the existing urban areas of Takanini and Papakura,

	and north of the urban area adjacent to Old Wairoa Road. This area of appropriate urban growth is then bordered to the west by Ardmore Airport, and to a lesser extent Hamlin Road/Airfield Road in the north, which creates a logical expansion for growth adjacent to a significant existing edge of urban land. • the land subject to this proposal when reviewed in detail is generally land not of high value, with urbanisation being an appropriate use.
B10 – Environmental risk	The objectives relevant to Sunfield regarding the environmental risk relate to natural hazards and contamination. It is concluded that: • The stormwater channels and wetlands will mitigate flooding effects with the risk to properties, people and infrastructure not being increased. • Human health and the quality of resources can be appropriately protected at the time of development, with the suite of reports provided by Focus Environmental Services Limited (Document 32) highlighting the potential contaminants and previous activities on site not being uncommon in rural production areas.

Based on the above assessment, it is considered that Sunfield is in general accordance with the high-level policy matters set out in the Regional Policy Statement.

9.4 Objectives and Policies of the Auckland Unitary Plan – Operative in Part

The relevant objectives and policies of the Auckland Unitary Plan – Operative in Part are set out and considered below.

UNITARY PLAN OBJECTIVES AND POLICIES
Chapter H18 – Future Urban Zone
Objectives
(1) Land is used and developed to achieve the objectives of the Rural – Rural Production Zone until it has been rezoned for urban purposes. *(2) Rural activities and services are provided for to support the rural community until the land is rezoned for urban purposes.* *(3) Future urban development is not compromised by premature subdivision, use or development.*

(4) Urbanisation on sites zoned Future Urban Zone is avoided until the sites have been rezoned for urban purposes.

Policies

(1) Provide for use and development which supports the policies of the Rural – Rural Production Zone unless that use and development is inconsistent with policies H18.3(2) to (6).

(2) Enable activities that are reliant on the quality of the soil or require a rural location to operate or which provide for the day to day needs of the local rural community.

(3) Require subdivision, use and development to maintain and complement rural character and amenity.

(4) Avoid subdivision that will result in the fragmentation of land and compromise future urban development.

(5) Prevent the establishment of more than one dwelling on a site except for the provision for minor dwellings and workers' accommodation.

(6) Avoid subdivision, use and development of land that may result in one or more of the following:

(a) structures and buildings of a scale and form that will hinder or prevent future urban development;

(b) compromise the efficient and effective operation of the local and wider transport network;

(c) require significant upgrades, provisions or extension to the wastewater, water supply, or stormwater networks or other infrastructure;

(d) inhibit the efficient provision of infrastructure;

(e) give rise to reverse sensitivity effects when urban development occurs;

(f) give rise to reverse sensitivity effects in relation to existing rural activities or infrastructure; or

(g) undermine the form or nature of future urban development.

Comment

- The Future Urban Zone effectively has objectives and policies in line with the rural zones, particularly the rural production zone. Given Sunfield is a significant masterplanned community with a range of urban activities, with largely residential activities and a Local Hub being located in the Future Urban Zone, these activities do not align with the envisaged activities and services of a rural area.
- In the context of the overall proposal, not all of which is within the Future Urban Zone, the subject proposal covers an area of 244.5ha, which has been designed and considered in the context of the surrounding urban and rural environment. This ensures that residential activities are located towards the urban areas, with open space and employment/industry activities located towards the rural areas. The scale, location ('hugging' the existing urban area) and design approach of the proposal will ensure that reverse sensitivity effects are managed, and future rural activities in adjoining rural areas is not hindered or prevented.
- The area of Future Urban Zone land is located in the south-western corner of the project area, adjoining an existing urban area zoned Mixed Housing Suburban and Single House. As outlined under section 7.1 of this report, this area is a logical greenfield area to develop ensuring 'continuous growth' of the Auckland urban area, adjacent to Papakura, Takanini and associated transport linkages. This will also ensure that future urban development is not compromised by 'premature' subdivision and development.

- Whilst the Sunfield development is an integrated development in a logical area for urban growth with appropriate infrastructure provision, urbanisation could be avoided prior to the land being rezoned. Should this fast-track proposal be approved, it is envisaged that the rezoning of the land would then occur in line with the activities contained within Sunfield.
- The proposal does not enable activities that are reliant on the quality of the soil, given the urban nature of the Sunfield project. As outlined within the Landsystems report (Document 28) the land is generally not of high value, with urbanisation being an appropriate use and the effects on productive land being mitigated.
- The proposed development within the Future Urban Zone land does not maintain the rural character of the area, however, the existing environment has rural areas to the north and east, and urban characteristics to the south and west. The proposal, therefore, doesn't complement the rural character and amenity of the area, but does complement the existing wider character of the area.
- The proposed subdivision and development will not fragment the land or compromise future urban development recognising its location adjacent to an existing urban area.
- Notwithstanding the Sunfield design principles, masterplanned approach and infrastructure being appropriately provided for, the proposal establishes more than one dwelling.
- The proposal does not inhibit the efficient provision of infrastructure, as outlined in section 7 and 8 of this report.
- Reverse sensitivity effects are mitigated given the existing urban areas to the south and east, and proposed urban areas to the north and west of the Future Urban Zone.

Future Urban Zone Summary

Whilst the purpose of the Act and all relevant statutory documents need consideration in the round as per section 10, it is considered that collectively the subject proposal is not consistent with the specific objectives and policies of the Future Urban zone, as it is effectively urbanisation of rural land prior to a plan change process. The scale and design of the Sunfield development along with appropriate infrastructure provision, however, counter this inconsistency, with a level of certainty provided for under the proposal, with more detail than what would be provided under a plan change process.

Chapter H19 – Rural Zones

H19.2.1 Objectives – general rural

(1) Rural areas are where people work, live and recreate and where a range of activities and services are enabled to support these functions.

(2) Rural production activities are provided for throughout the rural area while containing adverse environmental effects on site.

(3) Elite soil is protected, and prime soil is managed, for potential rural production.

(4) Rural lifestyle development avoids fragmentation of productive land.

H19.2.2 Policies – general rural

(1) Enable activities based on use of the land resource and recognise them as a primary function of rural areas.

(2) Require rural production activities to contain and manage their adverse environmental effects on-site to the fullest extent practicable.

(3) Enable rural production activities on elite and prime soil and avoid land-use activities and development not based on, or related to, rural production from locating on elite soil and avoid where practicable such activities and development from locating on prime soil.

(4) Enable and maintain the productive potential of land that is not elite or prime soil but which has productive potential for rural production purposes, and avoid its use for other activities including rural lifestyle living except where these are provided for or enabled by Policy H19.2.2(5).

(5) Enable a range of rural production activities and a limited range of other activities in rural areas by:

(a) separating potentially incompatible activities such as rural production and rural lifestyle living into different zones;

(b) avoiding or restricting rural subdivision for activities not associated with rural production in areas other than those subdivision provided for in E39 Subdivision – Rural;

(c) managing the effects of activities in rural areas so that;

(i) essential infrastructure can be funded, coordinated and provided in a timely, integrated, efficient and appropriate manner; and

(ii) reverse sensitivity effects do not constrain rural production activities.

(d) acknowledging that, in some circumstances, the effective operation, maintenance, upgrading and development of infrastructure may place constraints on productive land and other rural activities; or

(e) providing for tourism and activities related to the rural environment.

(6) Recognise that a range of buildings and structures accessory to farming and forestry, and other operational structures for rural production activities are an integral part of rural character and amenity values.

(7) Enable intensive farming in the Rural – Rural Production Zone, Rural – Mixed Rural Zone and Rural – Rural Coastal Zone only where it is carried out in accordance with good industry practice.

Comment

- The proposal will allow people to work, live and recreate in the area, recognising that rural production activities do not form part of the proposal.
- As outlined within the Landsystems report (Documents 28), whilst the development area is considered highly productive land when applying the NPS-HPL, the majority of the site has soils with heavy clay soil textures, soil wetness limitations and land use considerations that in practice, reducing the productive potential of these areas. The Sunfield site does not contain any LUC class 1 land and could be considered for urbanisation in preference to urbanising other land in the Auckland region with predominantly LUC class 1 land and well drained LUC class 2 land which have higher productive capacity.
- The land, including any productive land, will not be fragmented into small sites or lots given the scale and contiguous nature of the collective existing sites forming Sunfield.

- The activities contained within the Sunfield development are not considered primary functions of a rural area, although it is envisaged that some of the industrial activities in the north-eastern portion of the site could be associated with and have a connection to rural activities and rural production i.e. rural industrial activities.
- The Rural zones anticipate rural activities and a limited range of other activities. Given Sunfield is a significant masterplanned community with a range of urban activities, these activities do not align with the envisaged activities and services of a rural area.
- The infrastructure associated with Sunfield can be funded, co-ordinated and provided in a timely, integrated, efficient and appropriate manner, recognising the proposed conditions of consent stipulate the infrastructure requirements and associated timing.
- The areas within Sunfield which will be adjacent rural areas comprise of the employment precinct, including industrial activities and areas of open space. This will allow for an appropriate buffer and transition away from residential and sensitive activities, minimising any reverse sensitivity effects.

H19.2.3 Objectives – rural character, amenity and biodiversity values

(1) The character, amenity values and biodiversity values of rural areas are maintained or enhanced while accommodating the localised character of different parts of these areas and the dynamic nature of rural production activities.
(2) Areas of significant indigenous biodiversity are protected and enhanced.

H19.2.4 Policies – rural character, amenity and biodiversity values

(1) Manage the effects of rural activities to achieve a character, scale, intensity and location that is in keeping with rural character, amenity and biodiversity values, including recognising the following characteristics:

(a) a predominantly working rural environment;

(b) fewer buildings of an urban scale, nature and design, other than dwellings and their accessory buildings and buildings accessory to farming; and

(c) a general absence of infrastructure which is of an urban type and scale.

(2) Recognise the following are typical features of the Rural – Rural Production Zone, Rural – Mixed Rural Zone and Rural – Rural Coastal Zone and will generally not give rise to issues of reverse sensitivity in these zones:

(a) the presence of large numbers of farmed animals and extensive areas of plant, vine or fruit crops, plantation forests and farm forests;

(b) noise, odour, dust, traffic and visual effects associated with use of the land for farming, horticulture, forestry, mineral extraction and cleanfills;

(c) the presence of existing mineral extraction activities on sites zoned as Special Purpose – Quarry Zone;

(d) accessory buildings dot the landscape, particularly where farming activities are the dominant activity; and

(e) activities which provide for the relationship of Mana Whenua to their ancestral land and taonga.

(3) Enable opportunities to protect existing Significant Ecological Areas or provide opportunities to enhance or restore areas to areas meeting criteria of Significant Ecological Areas.

Comment

- The proposed development within the Rural Zone land does not maintain or enhance the rural character of the area, but does complement the existing wider character of the area recognising urban areas are located to the west.
- As outlined within section 7.11 of this report, the biodiversity values of the area will be enhanced with the natural streams (primarily Watercourse 2) and a natural wetland in the south-eastern portion of the site being protected and enhanced. Over time, the wider conveyance channels and streams, with the associated planting, will see the creation of an environment with high ecological values. The change of use from rural pastoral purposes with stock traversing the site, to urban residential development, where the streams are revegetated and not subject to constant stock movement, will also have positive environmental benefits.
- The areas within Sunfield which will be adjacent rural areas comprise the employment precinct, including industrial activities and areas of open space. This will allow for an appropriate buffer and transition away from residential and sensitive activities, minimising any reverse sensitivity effects. The surrounding rural area generally comprises farmed animals and limited horticulture, with no quarrying activities in the vicinity.
- Ardmore Airport is also located to the east/north-east, with reverse sensitivity effects addressed elsewhere in this report particularly section 7.13, however, a small residential development at Vintage Way is located within the airport precinct adjacent to an open space corridor. This provides an appropriate buffer and separation distance from the employment precinct, with the open space and employment activities being a more appropriate activity adjacent the Vintage Way land, than that of rural production. Proposed conditions of consent will also ensure that the effects associated within the employment precinct are largely internalised, particularly conditions regarding wildlife management, building location and scale, and lighting.

H19.2.5 Objectives – rural industries, rural commercial services and non-residential activities

(1) Rural production activities are supported by appropriate rural industries and services.

(2) The character, intensity and scale of rural industries and services are in keeping with the character of the relevant rural zone.

(3) The rural economy and the well-being of people and local communities are maintained or enhanced by social, cultural and economic non-residential activities, while the area's rural character and amenity is maintained or enhanced.

(4) Industries, services and non-residential activities of an urban type and scale unrelated to rural production activities are not located in rural zones.

(5) The rehabilitation of quarries is assisted by cleanfills and managed fills.

H19.2.6 Policies – rural industries, rural commercial services and non-residential activities

(1) Enable rural industries and rural commercial services only where they have a direct connection with the resources, amenities, characteristics and communities of rural areas.

(2) Manage rural industries, rural commercial services and other non-residential activities to:

(a) avoid creating reverse sensitivity effects;

(b) contain and manage adverse effects on-site; and

(c) avoid, remedy or mitigate adverse effects on traffic movement and the road network.

(3) Enable cleanfills and managed fills where they can assist the rehabilitation of quarries.

(4) Restrict cleanfills and managed fills in the Rural – Rural Conservation Zone and Rural – Countryside Living Zone. Where cleanfills are established in other rural zones:

(a) they should not adversely affect or inhibit the use of surrounding land for productive purposes or for carrying out any permitted, restricted discretionary or discretionary activity; and

(b) their completed state should be in keeping with the appearance, form and location of existing rural character and amenity values.

Comment

- It is envisaged that some of the industrial activities in the north-eastern portion of the site will be associated with and have a connection to rural activities and rural production i.e. rural industrial activities. This will help support the neighbouring rural areas, and provide social, cultural and economic benefits, however, it is recognised that the character of the proposed development will not be in keeping with the Mixed Rural Zone.
- Employment and industrial activities unrelated to rural production will be of a scale anticipated in urban areas, which is not envisaged within the rural zones.

H19.4.2 Objectives – Mixed Rural Zone

(1) The existing subdivision pattern is used by a range of rural production activities and non-residential activities that support them.

(2) The continuation of rural production and associated non-residential activities in the zone is not adversely affected by inappropriate rural lifestyle activity.

(3) Rural character and amenity values of the zone are maintained while anticipating a mix of rural production, non-residential and rural lifestyle activities.

H19.4.3 Policies – Mixed Rural Zone

(1) Enable rural production, rural industries and rural commercial services that are compatible with the existing subdivision pattern and recognise that these activities are significant elements of, and primary contributors to, rural character and amenity values.

(2) Manage reverse sensitivity effects by:

(a) limiting the size, scale and type of non-rural production activities;

(b) retaining the larger site sizes within this zone;

(c) limiting further subdivision for new rural lifestyle sites; and

(d) acknowledging a level of amenity that reflects the presence of:

(i) rural production and processing activities that generate rural odours, noise from stock and the use of machinery, and the movement of commercial vehicles on the local road network; and

(ii) non-residential activities which may generate noise, light and traffic levels greater than those normally found in areas set aside for rural lifestyle activities.

Comment

- The existing subdivision pattern will be altered into an urban pattern and layout, with a change to residential and urban characteristics away from the anticipated rural production activities.
- Due to buffering of the Sunfield development with open space and employment (mainly industrial) activities adjacent rural production areas, the continuation of these neighbouring rural activities will not be adversely impacted by the Sunfield proposal.
- The rural character and amenity values of the zone will not be maintained in line with the objectives and policies, recognising the change to an urban environment.

Rural Zone Summary

As with the Future Urban Zone objectives and policies, whilst the purpose of the Act and all relevant statutory documents need consideration in the round as per section 10 of this report, it is considered that collectively the subject proposal is not consistent with the specific objectives and policies of the rural zones, in particular the Mixed Rural Zone. This is due to the urbanisation of rural land, which will therefore have a different character to that of a rural area. The management of reverse sensitivity effects, provision of appropriate infrastructure, enhancement of biodiversity, the land generally not being of high production value, and the logical growth of the urban area to the west does, however, counter this inconsistency to a degree.

Chapter E39 – Subdivision - Rural

E39.2 Objectives

(1) Land is subdivided to achieve the objectives of the zones, the relevant overlays and Auckland-wide provisions.

(2) Land is subdivided in a manner that provides for the long-term needs of the community and minimises adverse effects of future development on the environment.

(3) Land is vested to provide for esplanades, reserves, roads, stormwater, infrastructure and other purposes.

(4) Infrastructure supporting subdivision and development is planned and provided for in an integrated and comprehensive manner and provided for to be in place at the time of the subdivision or development.

(5) Infrastructure is appropriately protected from incompatible subdivision, use and development, and reverse sensitivity effects.

(6) Subdivision has a layout which is safe, efficient, convenient and accessible.

(7) Subdivision manages adverse effects on historic heritage or Māori cultural heritage.

(8) Subdivision maintains or enhances the natural features and landscapes that contribute to the character and amenity values of the areas.

(9) The productive potential of rural land is enhanced through the amalgamation of smaller existing land holdings sites, particularly for sites identified in Appendix 14 Land amalgamation incentivised area, and the transfer of titles to certain Rural – Countryside Living Zone areas.

(10) Fragmentation of rural production land by:

(a) subdivision of land containing elite soil is avoided;

(b) subdivision of land containing prime soil is avoided where practicable; and

(c) subdivision of land avoids inappropriate rural lifestyle lots dispersed throughout rural and coastal areas.

(11) Subdivision avoids or minimises the opportunity for reverse sensitivity effects between agriculture, horticulture, mineral extraction activities, rural industry, infrastructure and rural lifestyle living opportunities.

(12) Rural lifestyle subdivision is primarily limited to the Rural – Countryside Living Zone, and to sites created by protecting, restoring or creating significant areas of indigenous vegetation or wetlands.

(13) Subdivision of any minor dwellings and workers' accommodation from the parent site is avoided.

(14) Subdivision is provided for, by either:

(a) Limited in-situ subdivision through the protection and enhancement of significant indigenous vegetation or wetlands and/or indigenous revegetation planting; or

(b) Transfer of titles to the Rural-Countryside Living Zone, through the protection and enhancement of indigenous vegetation and wetlands and/or through indigenous revegetation planting.

(15) Subdivision maintains or enhances the natural features and landscapes that contribute to the character and amenity values of rural areas.

(16) Rural subdivision avoids or minimises adverse effects in areas identified in the Outstanding Natural Features Overlay, Outstanding Natural Character Overlay, High Natural Character Overlay, Outstanding Natural Landscape Overlay and Significant Ecological Areas Overlay.

(17) Subdivision:

(a) outside of urban and serviced areas avoids adverse effects to people, property, infrastructure and the environment from natural hazards;

(b) avoids where possible, and otherwise mitigates, adverse effects associated with subdivision for infrastructure or existing urban land uses; and

(c) maintains the function of flood plains and overland flow paths to safely convey flood waters while taking into account the likely long term effects of climate change;

E39.3 Policies

(1) Provide for subdivision which supports the policies of the zones.

(2) Require subdivision to manage the risk of adverse effects resulting from natural hazards in accordance with the objectives and policies in E36 Natural hazards and flooding, and to provide safe and stable building platforms and vehicle access.

(3) Manage rural subdivision and boundary adjustments to facilitate more efficient use of land for rural production activities by:

(a) restricting further subdivision in the Rural – Rural Production Zone, Rural – Mixed Rural Zone and Rural – Rural Coastal Zone for a range of rural production activities; and

(b) providing for the transfer of titles to certain Rural – Countryside Living Zones.

(4) Require subdivisions to be designed to retain, protect or enhance features including those in the Historic Heritage Places Overlay and Sites and Places of Significance to Mana Whenua Overlay, or otherwise remedy adverse effects.

(5) Provide for subdivision around existing development and subdivision where it enables creation of sites for uses that are in accordance with an approved land use resource consent, where there is compliance with Auckland-wide and zone rules and appropriate provision is made for areas of common use.

(6) Provide for minor boundary adjustments which enable a more efficient and effective use of land where there is compliance with Auckland-wide and zone rules.

(7) Require any staged subdivision to be undertaken in a manner that promotes efficient development.

(8) Avoid the fragmentation by subdivision of land containing elite soil and avoid where practicable fragmentation by subdivision of land containing prime soil.

(9) Encourage the amalgamation of small fragmented land parcels identified in Appendix 14 Land amalgamation incentivised area through transferable rural site subdivision.

(10) Require any proposal for rural lifestyle subdivision to demonstrate that any development will avoid or mitigate potential reverse sensitivity effects between it and any rural production activities, mineral extraction activities, rural industries and infrastructure.

(11) Restrict subdivision for rural lifestyle living to where:

(a) the site is located in the Rural – Countryside Living Zone;

(b) the site is created through the protection/enhancement of significant indigenous vegetation and wetlands; or

(c) the site is created through indigenous revegetation planting.

(12) Enable the transfer of titles to sites in the Rural – Countryside Living Zone which are identified using the subdivision variation control on the planning maps.

(13) Manage reverse sensitivity conflicts between rural lifestyle living and countryside living and rural production activities by the design and layout of subdivisions and locations of identified building areas and house sites.

(14) Avoid the subdivision of minor dwellings and workers' accommodation from the parent site in the rural areas.

Comment

- The land will be subdivided with an urban layout in line with the proposed development, with an assessment of the zone objectives and policies undertaken above.
- The subdivision layout will provide for the long-term needs of Aucklanders and the community, through the provision of housing, employment and areas of recreation which will provide social, cultural and economic benefits.
- The scheme plan illustrates land to be vested as road, accessway and local purpose (drainage) reserve, which includes the stormwater and open space network.
- A significant amount of infrastructure supporting three waters and transportation will be provided for at the time of development and subdivision, and will be undertaken in an integrated and comprehensive way across the 244.5ha site and beyond. Conditions of consent are proposed, as per Attachment 2, which will ensure the infrastructure is provided in a timely and appropriate manner.
- The subdivision layout will be safe, efficient and accessible, as outlined within the Integrated Transportation Assessment (Document 31).

- The subdivision will maintain the natural features of the site with the open space areas being subdivided and vested. These areas contain natural streams (primarily Watercourse 2) and a natural inland wetland in the south-eastern portion of the site which will be protected and enhanced. There are no other natural features contained within the Sunfield development which warrant protection, as per the Bioresearches Ecology Report (Document 34) recognising that extensive planting, particularly within the riparian margins, will offset the effects of vegetation removal, including that of the stand of Kahikatea.
- The land, including any 'productive' land, will not be fragmented into small sites or lots given the scale and contiguous nature of the collective existing sites forming Sunfield, with the land generally not being of high production value as per the Landsystems report (Documents 28).
- The subdivision (and development pattern) will minimise reverse sensitivity effects with the neighbouring rural activities with open space and employment activities adjoining Sunfield to the north and east.
- Sunfield does not contain an Outstanding Natural Features Overlay, Outstanding Natural Character Overlay, High Natural Character Overlay, Outstanding Natural Landscape Overlay or Significant Ecological Areas Overlay.
- Adverse effects associated with natural hazards are not anticipated from the subdivision, as outlined in section 7.4, recognising that the Awakeri Wetlands will provide the attenuation for rainfall events up to 1% AEP and will limit stormwater runoff from the area by providing stormwater storage during rain fall events up to and including the 100-year event. This is outlined within the Sunfield Three Waters Report and the Stormwater Modelling Report (Document 7) prepared by Maven Associates. The stormwater channels within the Sunfield development will be subdivided and vested to Council as Local Purpose (Drainage) Reserve ensure on-going access and maintenance arrangements.
- Sunfield will be a staged development (refer section 4.13 of this report), which will ensure the efficient integration with infrastructure. Conditions of consent are proposed, as per Attachment 2, which will ensure the infrastructure is provided in a timely and appropriate manner.

Policies – Protection of indigenous vegetation and wetland and revegetation planting

(15) Enable:

(a) Transfer of titles; and

(b) Limited in-situ subdivision through the protection of indigenous vegetation or wetlands identified in the Significant Ecological Areas Overlay or shown on the Kawau Island Rural Subdivision SEA Control or areas meeting the factors for Significant Ecological Areas in Policy B7.2.2(1) and in terms of the descriptors contained in Schedule 3 Significant Ecological Areas - Terrestrial Schedule and indigenous revegetation planting.

(16) [deleted]

(17) Require indigenous vegetation or wetland within a site being subdivided to be legally protected in perpetuity.

(18) Provide limited opportunities for in-situ subdivision in rural areas while ensuring that:

(a) there will be significant environmental protection of indigenous vegetation including restoration, or wetlands;

(b) subdivision avoids the inappropriate proliferation and dispersal of development by limiting the number of sites created;

(c) subdivision avoids inappropriate development within areas of the Outstanding Natural Landscape Overlay, Outstanding Natural Character Overlay, High Natural Character Overlay and the coastal environment;

(d) adverse effects on rural and coastal character are avoided, remedied or mitigated;

(e) sites are of sufficient size to absorb and manage adverse effects within the site; and reverse sensitivity effects are managed in a way that does not compromise the viability of rural sites for continued production.

(19) Avoid the subdivision of sites in the Quarry Buffer Area Overlay and in areas of significant mineral resources that would result in development that could compromise the operation of mineral extraction activities.

Policies – Natural features and landscape

(20) Require subdivision, including site boundaries and specified building areas and access, to:

(a) recognise topography including steep slopes, natural features, ridgelines, aspect, water supplies, and existing vegetation;

(b) avoid inappropriately located buildings and associated accessways including prominent locations as viewed from public places;

(c) avoid adverse effects on riparian margins and protected natural features; and

(d) avoid fragmentation of features and landscape in the Significant Ecological Areas Overlay, Outstanding Natural Character Overlay, High Natural Character Overlay, Outstanding Natural Landscapes Overlay, Outstanding Natural Features Overlay or Sites and Places of Significance to Mana Whenua Overlay, or areas between sites.

Comment

- As outlined previously, the subdivision will maintain the natural features of the site with the open space areas being subdivided and vested. These areas contain natural streams (primarily Watercourse 2) and a natural wetland in the south-eastern portion of the site which will be protected and enhanced, with significant revegetation proposed.
- The stormwater channels and open space areas within the Sunfield development will be subdivided and vested, to ensure on-going access for the public to enjoy the levels of amenity in the area and for maintenance arrangements.
- The proposal does not avoid the inappropriate proliferation of development, but is does avoid the inappropriate dispersal of development as the number of sites created is significant, however, the sites are located in a contiguous and consolidated manner.
- Sunfield does not contain an Outstanding Natural Features Overlay, Outstanding Natural Character Overlay, High Natural Character Overlay, Outstanding Natural Landscape Overlay or Significant Ecological Areas Overlay.
- The subject site is flat, with the exception of the higher land in the south-eastern portion of the site, which has a gentle slope and contains the proposed Wai Mauri Stream Park. The subdivision pattern

has therefore appropriately factored in the natural features of the site, ridgelines and existing vegetation. This also ensures that proposed development is not contained within the highest part of the site, with the proposed Wai Mauri Stream Park being in the most prominent and visible location.

Policies – Esplanade Reserves and Strips

(21) Require esplanade reserves or strips when subdividing land adjoining the coast and other qualifying water-bodies.

(22) Avoid reducing the width of esplanade reserves or strips, or the waiving of the requirement to provide an esplanade reserve or strip, except where any of the following apply:

(a) safe public access and recreational use is already possible and can be maintained for the future;

(b) the maintenance and enhancement of the natural functioning and water quality of the adjoining sea, river or other water body will not be adversely affected;

(c) the land and water-based habitats on and adjoining the subject land area will not be adversely affected;

(d) the natural values, geological features and landscape features will not be adversely affected;

(e) any Scheduled Historic Heritage Places and Sites and Places of Significance to Mana Whenua will not be adversely affected;

(f) it can be demonstrated that the reduced width of the esplanade reserve or strip is sufficient to manage the risk of adverse effects resulting from natural hazards, taking into account the likely long-term effects of climate change;

(g) it can be demonstrated that a full width esplanade reserve or strip is not required to maintain the natural character and amenity of the coastal environment;

(h) a reduced width in certain locations can be offset by an increase in width in other locations or areas, which would result in a positive public benefit in terms of access and recreation;

(i) restrictions on public access are necessary to ensure a level of security for business activities in limited circumstances having regard to Policy B8.4.2(3) relating to public access in the coastal marine area; or

(j) direct access to the sea or other water body is required for a business activity in limited circumstances.

(23) Require esplanade reserves rather than esplanade strips unless any of the following apply:

(a) land has limited conservation and recreational value;

(b) conservation and historic heritage values that are present can be adequately protected in private ownership;

(c) opportunity to acquire an esplanade reserve is unlikely to arise but continuity of access is desirable;

(d) creation of esplanade strips can secure public benefits and resource management objectives without alienating land from private ownership;

(e) land is subject to natural hazards or stability issues taking into account the likely long term effects of climate change; or

(f) a marginal strip of at least 20 metres under the Conservation Act 1987 has not been set aside on land that is Treaty Settlement Land.

Comment

- The stormwater channels and open space areas within the Sunfield development will be subdivided and vested, to ensure on-going access for the public to enjoy the levels of amenity in the area and for maintenance arrangements. These will be Local Purpose (Drainage) Reserves and with no esplanade reserves or strips proposed.

Policies – Amenity

(24) Require subdivision to avoid creating ribbon development along public roads or multiple access points that may adversely affect the character or amenity values or the adequate functioning of rural roads.

(25) Require accessways, public walkways and roads to be designed so rural and coastal character and amenity values are maintained or enhanced.

(26) Restrict the location and design of sites and specified building areas to:

(a) integrate development with the existing landscape; and

(b) ensure the character and amenity values of adjacent sites and the locality are not adversely affected.

(27) Require rural subdivision to avoid, remedy or mitigate adverse effects on the rural or coastal character and to complement the rural or coastal character of the area.

Comment

- Sunfield will avoid 'ribbon development' along rural roads, recognising that the proposed urbanisation of the area will lead to development with depth, and 'continuous growth' away from the existing urban area of Auckland.
- Accessways, public walkways and roads will be created throughout the Sunfield proposal providing a high level of amenity, however, these will be created in line with urban character and amenity values, as opposed to the envisaged rural character.
- Notwithstanding that existing rural character values of the subject site and surrounding area to the north and west, as per the Landscape Values Assessment (Document 18), the proposed Sunfield development will integrate into the existing landscape given the topography, visual catchments, and urban areas to the south and west. The character effects of adjacent sites to the north and east will be mitigated by the separation distances of 'urban' type development, with the northern and eastern greenway, which have width of approximately 38m, extending to 73m in the northern portion of the eastern greenway.

Policies – Infrastructure

(28) Require infrastructure servicing rural subdivision to avoid, remedy or mitigate adverse effects on rural character and amenity.

(29) Require all sites capable of containing a building, in areas where service connections are available to a public reticulated network, to be able to connect to the following networks:

(a) wastewater;

(b) stormwater; and

(c) potable water.

(30) Require all new sites capable of containing a building, in areas with no reticulated water supply, stormwater or wastewater network, to be of a size and shape that provides for:

(a) the treatment and disposal of stormwater in a way that does not lead to significant adverse off-site effects including degraded water quality, erosion, land instability, creation or exacerbation of flooding;

(b) management of wastewater via an on-site wastewater treatment system, or approval to connect to a private wastewater network; and

(c) potable water.

(31) Require subdivision to manage stormwater:

(a) in accordance with any approved stormwater discharge consent or network discharge consent;

(b) in a manner consistent with stormwater management policies in E1 Water quality and integrated management;

(c) by applying an integrated stormwater management approach to the planning and design of development in accordance with stormwater management policies in E1 Water quality and integrated management;

(d) to protect natural streams and maintain the conveyance function of overland flow paths;

(e) to maintain or progressively improve water quality;

(f) to integrate drainage reserves and infrastructure with surrounding development and public open space networks; and

(g) in an integrated and cost-effective way.

(32) Manage subdivision and development to avoid, remedy or mitigate adverse effects on infrastructure including reverse sensitivity effects, which may compromise the operation and capacity of existing or authorised infrastructure.

(33) Enable subdivision for network utility purposes while avoiding, remedying or mitigating the adverse effects.

Comment

- The proposed subdivision will mitigate adverse effects on the rural character and amenity of the area, with the three waters infrastructure being reticulated and underground, with the stormwater channel providing an open space area with high levels of amenity which will be vested to public access.
- All sites containing a building will have public reticulated services regarding wastewater, stormwater and potable water as outlined within the Engineering Plans (Document 10)
- Adverse effects associated with managing stormwater are not anticipated from the subdivision, as outlined in sections 7.4, recognising that the Awakeri Wetlands will provide the attenuation for rainfall events up to 1% AEP and will limit stormwater runoff from the area by providing stormwater storage during rain fall events up to and including the 100-year event. This is outlined within the Sunfield Three Waters Report and the Stormwater Modelling Report (Document 7) prepared by Maven Associates.
- The stormwater channels and open space areas within the Sunfield development will be subdivided and vested, to ensure on-going access for the public to enjoy the levels of amenity in the area and for maintenance arrangements.

<u>Subdivision – Rural Summary</u>

The proposed change in land-use from rural to urban is generally considered against the underlying zone objectives and policies, with the rural subdivision objectives and policies ensuring the subdivision pattern

does not impede rural activities and the associated character and amenity values. Given this over-arching policy setting, it is considered that the proposal is not consistent with the Subdivision – Rural objectives and policies.

There are, however, a number of 'secondary' objectives and policies which are largely met given:

- Natural features are to be maintained and enhanced, with subdivision occurring around these features, particularly Watercourse 2 and the natural inland wetland in the south-east.
- Infrastructure will be provided for and will ensure a high level of amenity.
- Reverse sensitivity effects will be managed through the subdivision pattern, with an open space corridor adjacent the northern and eastern boundaries.
- The land is generally not of a high production value.
- The stormwater channels will manage flooding, ensuring that natural hazards will not impact the subdivision of the land.
- The subdivision pattern largely follows the site sizes and urban typology to the west and south, with this area being a logical area to develop, with it enabling the 'continuous growth' of Auckland and minimising any fragmentation of land.

The objectives and policies of Chapter E7 – Taking, using, damming and diversion of water and drilling, and Chapter E8 – Stormwater – Discharge and diversion revert to Chapters E1 – Water quality and integrated management, and E2 – Water quantity, allocation and use.

Chapter E1 – Water Quality and Integrated Management

Objectives

(1) Freshwater and sediment quality is maintained where it is excellent or good and progressively improved over time in degraded areas.

(2) The mauri of freshwater is maintained or progressively improved over time to enable traditional and cultural use of this resource by Mana Whenua.

(3) Stormwater and wastewater networks are managed to protect public health and safety and to prevent or minimise adverse effects of contaminants on freshwater and coastal water quality.

Policies

(4) When considering any application for a discharge, the Council must have regard to the following matters:

(a) the extent to which the discharge would avoid contamination that will have an adverse effect on the life-supporting capacity of freshwater including on any ecosystem associated with freshwater; and

(b) the extent to which it is feasible and dependable that any more than a minor adverse effect on freshwater, and on any ecosystem associated with freshwater, resulting from the discharge would be avoided.

(5) When considering any application for a discharge the Council must have regard to the following matters:

(a) the extent to which the discharge would avoid contamination that will have an adverse effect on the health of people and communities as affected by their secondary contact with fresh water; and

(b) the extent to which it is feasible and dependable that any more than minor adverse effect on the health of people and communities as affected by their secondary contact with fresh water resulting from the discharge would be avoided.

Stormwater management

(8) Avoid as far as practicable, or otherwise minimise or mitigate, adverse effects of stormwater runoff from greenfield development on freshwater systems, freshwater and coastal water by:

(a) taking an integrated stormwater management approach (refer to Policy E1.3.10);

(b) minimising the generation and discharge of contaminants, particularly from high contaminant generating car parks and high use roads and into sensitive receiving environments;

(c) minimising or mitigating changes in hydrology, including loss of infiltration, to:

(i) minimise erosion and associated effects on stream health and values;

(ii) maintain stream baseflows; and

(iii) support groundwater recharge;

(d) where practicable, minimising or mitigating the effects on freshwater systems arising from changes in water temperature caused by stormwater discharges; and

(e) providing for the management of gross stormwater pollutants, such as litter, in areas where the generation of these may be an issue.

(9) Minimise or mitigate new adverse effects of stormwater runoff, and where practicable progressively reduce existing adverse effects of stormwater runoff, on freshwater systems, freshwater and coastal waters during intensification and redevelopment of existing urban areas by all of the following:

(a) requiring measures to reduce contaminants, particularly from high contaminant-generating car parks and high-use roads;

(b) requiring measures to reduce the discharge of gross stormwater pollutants;

(c) requiring measures to be adopted to reduce the peak flow rate and the volume of stormwater flows:

(i) within sites identified in the Stormwater Management Area – Flow 1 and Flow 2 Control (as shown on the planning maps);

(ii) where development exceeds the maximum impervious area for the relevant zone; or

(iii) from areas of impervious surface where discharges may give rise to flooding or adversely affect rivers and streams;

(d) taking an integrated stormwater management approach for large-scale and comprehensive redevelopment and intensification (refer to Policy E1.3.10 below) and encourage the restoration of freshwater systems where practicable; and

(e) ensuring intensification is supported by appropriate stormwater infrastructure, including natural assets that are utilised for stormwater conveyance and overland flow paths.

(10) In taking an integrated stormwater management approach have regard to all of the following:

(a) the nature and scale of the development and practical and cost considerations, recognising:

(i) greenfield and comprehensive brownfield development generally offer greater opportunity than intensification and small-scale redevelopment of existing areas;

(ii) intensive land uses such as high-intensity residential, business, industrial and roads generally have greater constraints; and

(iii) site operational and use requirements may preclude the use of an integrated stormwater management approach.

(b) the location, design, capacity, intensity and integration of sites/development and infrastructure, including roads and reserves, to protect significant site features and hydrology and minimise adverse effects on receiving environments;

(c) the nature and sensitivity of receiving environments to the adverse effects of development, including fragmentation and loss of connectivity of rivers and streams, hydrological effects and contaminant discharges and how these can be minimised and mitigated, including opportunities to enhance degraded environments;

(d) reducing stormwater flows and contaminants at source prior to the consideration of mitigation measures and the optimisation of on-site and larger communal devices where these are required; and

(e) the use and enhancement of natural hydrological features and green infrastructure for stormwater management where practicable.

(11) Avoid as far as practicable, or otherwise minimise or mitigate adverse effects of stormwater diversions and discharges, having particular regard to:

(a) the nature, quality, volume and peak flow of the stormwater runoff;

(b) the sensitivity of freshwater systems and coastal waters, including the Hauraki Gulf Marine Park;

(c) the potential for the diversion and discharge to create or exacerbate flood risks;

(d) options to manage stormwater on-site or the use of communal stormwater management measures;

(e) practical limitations in respect of the measures that can be applied; and

(f) the current state of receiving environments.

(12) Manage contaminants in stormwater runoff from high contaminant generating car parks and high use roads to minimise new adverse effects and progressively reduce existing adverse effects on water and sediment quality in freshwater systems, freshwater and coastal waters.

(13) Require stormwater quality or flow management to be achieved on-site unless there is a downstream communal device or facility designed to cater for the site's stormwater runoff.

(14) Adopt the best practicable option to minimise the adverse effects of stormwater discharges from stormwater network and infrastructure including road, and rail having regard to all of the following:

(a) the best practicable option criteria as set out in section 2 of the Resource Management Act 1991;

(b) the reasonable timeframes over which adverse effects can be avoided as far as practicable, or otherwise minimised or mitigated;

(c) the scale and significance of the adverse effects;

(d) infrastructure investment priorities and the consequences of delaying infrastructural improvements in other areas;

(e) the ability to prevent or minimise existing adverse effects having regard to the effectiveness and timeframes of other feasible methods, including land use controls;

(f) opportunities to integrate with other major infrastructure projects or works;

(g) the need to maintain and optimise existing stormwater networks and provide for planned land use and development; and

(h) operational requirements and space limitations.

(26) Prevent or minimise the adverse effects from construction, maintenance, investigation and other activities on the quality of freshwater and coastal water by:

(a) adopting best management practices and establishing minimum standards for the discharges; or

(b) where Policy E1.3(26)(a) is not practicable, have regard to the following:

(i) the nature, volume and concentration of the contaminants in the discharge;

(ii) the sensitivity of the receiving environment to the contaminants in the discharge;

(iii) other practicable options for the discharge, including reuse or discharge to the trade sewer; and

(iv) practicable measures to reduce contaminant concentrations prior to discharge or otherwise mitigate adverse effects.

Comment

- The application contains an Infrastructure Report (Document 8) and Engineering Plans (Document 10), which both outline the proposed sediment and erosion control methodologies to be proposed.
- During construction, it is envisaged that pumping of stormwater will be required to manage the run-off from rainfall events and the high groundwater levels present at the site. Sediment Retention Ponds (SRPs) are proposed as a temporary storage and attenuation device, which will chemically treat the sediment laden water and will prevent the site from discharging suspended sediments into the receiving environment. Dirty water diversion bunds will direct runoff towards the proposed SRPs. Once treated, water will be discharged from the SRPs to existing drains and watercourses.
- Silt control measures will be installed on site prior to any earthworks commencing, such as silt fences, which are particularly useful on flat land.
- Erosion of the stormwater channel and in turn the discharge of sediment will be minimised through natural techniques such as significant planting in the riparian margins.
- The proposed stormwater system will provide an integrated holistic stormwater solution, as opposed to fragmented individual stormwater management approaches, reducing flooding impacts within a catchment of approximately 244.5ha.
- Mana whenua have been extensively engaged prior to the lodgement of this application, and are supportive of the Sunfield proposal, particularly Awakeri Wetlands and the Wai Mauri Stream Park.
- Once the development has been constructed as outlined within the Three Waters Strategy Report (Document 7), a stormwater treatment train approach will occur with non -contaminant building materials being used, stormwater 'tetra-traps' in the road, swales filtering sedment and contaminants and stormwater ponds/wetlands.

Overall, it is considered that the proposal will meet the objectives and policies of Chapter E1 regarding water quality and integrated management.

The objectives and policies of Chapter E7 – Taking, using, damming and diversion of water and drilling, and Chapter E8 – Stormwater – Discharge and diversion revert to Chapters E1 – Water quality and integrated management, and E2 – Water quantity, allocation and use.

E2 – Water quantity, allocation and use

Objectives

(1) Water in surface rivers and groundwater aquifers is available for use provided the natural values of water are maintained and established limits are not exceeded.

(2) Water resources are managed within limits to meet current and future water needs for social, cultural and economic purposes.

(3) Freshwater resources available for use are managed and allocated in order of priority to provide for domestic and municipal water supplies, animals, and economic development.

(4) Water resources are managed to maximise the efficient allocation and efficient use of available water.

(5) Mana Whenua values including the mauri of water, are acknowledged in the allocation and use of water.

Policies

(23) Require proposals to divert groundwater, in addition to the matters addressed in Policy E2.3(6) and (7) above, to ensure that:

(a) the proposal avoids, remedies or mitigates any adverse effects on:

(i) scheduled historic heritage places and scheduled sites and places of significance to Mana Whenua; and

(ii) people and communities

(b) the groundwater diversion does not cause or exacerbate any flooding;

(c) monitoring has been incorporated where appropriate, including:

(i) measurement and recording of water levels and pressures; and

(ii) measurement and recording of the movement of ground, buildings and other structures.

(d) mitigation has been incorporated where appropriate including:

(i) minimising the period where the excavation is open/unsealed;

(ii) use of low permeability perimeter walls and floors;

(iii) use of temporary and permanent systems to retain the excavation; or

(iv) re-injection of water to maintain groundwater pressures.

Comment

- The groundwater diversion is to ensure the safe construction of Sunfield, particularly the stormwater conveyance channels recognising the earthwork cuts in these areas, with the groundwater essentially remaining in the same catchment.
- Mana whenua have been extensively engaged throughout the design process, and will continue to be heavily involved in the project.
- The proposed design will ensure impacts from groundwater diversion are mitigated, noting the effects are mitigated, such as the appropriately sized groundwater cut-off walls, and subsoil drains to prevent groundwater mounding.
- Groundwater water recharge of the peat soil through soakage/recharge pits to ensure the retention of existing groundwater levels.
- A monitoring plan that was submitted for the Awakeri Wetlands Stages 2 and 3 consents has been provided (Document 26), with the groundwater conditions across the entire Sunfield area being

generally consistent. Options are outlined within the monitoring plan to mitigate the effects as required. A GSMCP is proposed to be incorporated as a condition of consent, which will be updated as earthworks and development progresses through the respective stages of development.

It is therefore considered that the proposal meets the objectives of Chapter E2 and the use of water.

Chapter E11 and E12 – Land Disturbance – Regional and District

Objectives

(1) Land disturbance is undertaken in a manner that protects the safety of people and avoids, remedies or mitigates adverse effects on the environment.

(2) Sediment generation from land disturbance is minimised.

(3) Land disturbance is controlled to achieve soil conservation.

Policies

(1) Avoid where practicable, and otherwise mitigate, or where appropriate, remedy adverse effects on areas where there are natural and physical resources that have been scheduled in the Plan in relation to natural heritage, Mana Whenua, natural resources, coastal environment, historic heritage and special character.

(2) Manage land disturbance to:

(a) retain soil and sediment on the land by the use of best practicable options for sediment and erosion control appropriate to the nature and scale of the activity;

(b) manage the amount of land being disturbed at any one time, particularly where the soil type, topography and location is likely to result in increased sediment runoff or discharge;

(c) avoid, remedy or mitigate adverse effects on accidentally discovered sensitive material; and

(d) maintain the cultural and spiritual values of Mana Whenua in terms of land and water quality, preservation of waihi tapu, and kaimoana gathering.

(3) Manage the impact on Mana Whenua cultural heritage that is discovered undertaking land disturbance by:

(a) requiring a protocol for the accidental discovery of kōiwi, archaeology and artefacts of Māori origin;

(b) undertaking appropriate actions in accordance with mātauranga and tikanga Māori; and

(c) undertaking appropriate measures to avoid adverse effects. Where adverse effects cannot be avoided, effects are remedied or mitigated.

(4) Enable land disturbance necessary for a range of activities undertaken to provide for people and communities social, economic and cultural well-being, and their health and safety.

(5) Design and implement earthworks with recognition of existing environmental site constraints and opportunities, specific engineering requirements, and implementation of integrated water principles.

(6) Require that earthworks are designed and undertaken in a manner that ensures the stability and safety of surrounding land, buildings and structures.

(7) Require any land disturbance that will likely result in the discharge of sediment laden water to a surface water body or to coastal water to demonstrate that sediment discharge has been minimised to the extent practicable, having regard to the quality of the environment.

Comment

- Due to the topography of the surrounding land, and the design of the development, no adverse effects will be generated on the stability and safety of the surrounding land.
- Earthworks will be undertaken in a staged manner to minimise the potential for erosion and sedimentation effects.
- If an area of the site is found to be of significance to mana whenua, a works methodology can be developed accordingly to address such matters, noting the proposed conditions envisage on-going engagement with mana whenua.
- The earthworks proposed as part of this application are necessary to enable a significant stormwater system, with landform and run-off effects being minimal due to the topography of the surrounding area.
- Sediment generation will be appropriately managed through the use of a Erosion and Sediment Control Plan (ESCP). An ESCP is proposed to be incorporated as a condition of consent, with the Infrastructure Report (Document 8) and Engineering Plans (Document 10) providing information on the proposed sediment and erosion methodologies.
- Works are limited to those required to establish the proposed infrastructure (stormwater systems and roads) and safe and stable building platforms to enable the proposed development. This is considered to be an efficient amount of earthworks to enable the development, and limited to only that to which is necessary to enable the development.
- All earthworks will be undertaken in a manner that protects the safety of people and avoids, remedies and mitigates adverse effects on the environment. All earthworks operations will be undertaken in accordance with best practice methods and in accordance with the standards of the Unitary Plan and Auckland Council's Guidance Document – Erosion and Sediment Control for Soil Disturbing Activities (GD05).
- Any anticipated sediment generation from the proposed earthworks operations will be managed to ensure minimal impact on the surrounding environment and people.
- The subject site is not located within any identified areas of cultural significance and value to mana whenua, recognising the previous engagement undertaken and further engagement proposed as a condition of consent.
- Construction effects will be appropriately mitigated through the construction methodology and the use management plans, including noise and vibration.
- As per section 7.16 and with particular regard to the LDE report (Document 24), it is considered that the building size and scale will minimise adverse settlement matters, with the proposal being for one to two storey light weight timber frame construction, which the geotechnical conditions can cater

for and accommodate. The Town Centre will be able to accommodate larger buildings in scale and height due to the large footprint being able to disperse load over a greater area.

- Conditions are proposed to ensure effects associated with earthworks and stability will be appropriately mitigated, with the proposal being consistent with the Chapters E11 and E12 objectives and policies.

Chapter E27 – Transport

E27.2 Objectives

(1) Land use and all modes of transport are integrated in a manner that enables:

(a) the benefits of an integrated transport network to be realised; and

(b) the adverse effects of traffic generation on the transport network to be managed.

(2) An integrated transport network including public transport, walking, cycling, private vehicles and freight, is provided for.

(3) Parking and loading supports urban growth and the quality compact urban form.

(4) Parking, loading and access is safe and efficient and, where parking is provided, it is commensurate with the character, scale and intensity and alternative transport options of the location.

(5) Pedestrian safety and amenity along public footpaths is prioritised.

(6) Road/rail crossings operate safely with neighbouring land-use and development.

Comment

- The proposal will integrate all modes of transport. Pathways and greenways for active modes, public transport (both proposed and existing) and private vehicles will all be provided for. Private vehicles will be limited in order to encourage a 'car-less' environment with residents being able to live, work and play within Sunfield. This, in turn, will ensure traffic generation effects are managed within acceptable parameters.
- Parking will be provided at reduced rates with 1 in 10 dwellings having parking spaces, and communal and visitor parking provided at a ratio of 1 space per 10 dwellings. There will also be the provision of car share spaces at a ratio of 1 in every 11.5 dwellings. The majority of parking spaces will be provided in Local Hubs, which will ensure that the Residential Precincts have a high-level of amenity, and a quality compact urban form.
- Pedestrian connections and networks for active modes will be separated from vehicular traffic, creating a safe and high amenity neighbourhood. For example, Sunfield Loop Road has defined areas for pedestrians and micromobility and separate dedicated lanes for public transport and private vehicles. There are also minimal crossings, avoiding conflicts between movement modes.

E27.3 Policies

(1) Require subdivision, use and development which:

(a) generate trips resulting in potentially more than minor adverse effects on the safe, efficient and effective operation of the transport network;

(b) are proposed outside of the following zones:

(i) the Business – City Centre Zone, Business – Metropolitan Centre Zone, Business – Town Centre Zone;

(ii) Residential – Terrace Housing and Apartment Buildings Zone;

(iii) the Centre Fringe Office Control as shown on the planning maps; or

(c) do not already require an integrated transport assessment or have been approved based on an integrated transport assessment to manage adverse effects on and integrate with the transport network by measures such as travel planning, providing alternatives to private vehicle trips, staging development or undertaking improvements to the local transport network.

(2) Require major proposals for discretionary consent to prepare an integrated transport assessment including provision for pedestrians, cyclists, public transport users, freight and motorists.

Comment

- Traffic generation from the proposed development can be appropriately accommodated, as outlined in section 7.8 of this report, given a restriction on parking spaces, an increase in public transport provision, intersection upgrades, and extensive active mode networks.
- Monitoring of the proposal will be required to ensure the anticipated outcomes are accurate.
- A Travel Plan requirement for the Employment Precinct is proposed, which would be continuously updated and refined, with the main aim at minimising freight and deliveries to the area during peak times.
- An integrated transportation assessment has been provided by Commute (Document 31) outlining the appropriateness of the development and associated mitigation measures, which includes a detailed staging plan for when transport 'infrastructure' is to be provided, in combination with land-use development.

Policies - Parking

(3) Manage the number, location and type of parking and loading spaces, including bicycle parking and associated end-of-trip facilities to support all of the following:

(a) the safe, efficient and effective operation of the transport network;

(b) the use of more sustainable transport options including public transport, cycling and walking;

(c) the functional and operational requirements of activities;

(d) the efficient use of land;

(e) the recognition of different activities having different trip characteristics; and

(f) the efficient use of on-street parking.

(4) Limit the supply of on-site parking in the Business – City Centre Zone to support the planned growth and intensification and recognise the existing and future accessibility of this location to public transport, and support walking and cycling.

(5) Limit the supply of on-site parking for office development in all locations to:

(a) minimise the growth of private vehicle trips by commuters travelling during peak periods; and

(b) support larger-scale office developments in the Business – City Centre Zone, Centre Fringe Office Control area, Business – Metropolitan Centre Zone, Business – Town Centre Zone and Business – Business Park Zone.

(6) Provide for flexible on-site parking in the Business – Metropolitan Centre Zone, Business – Town Centre Zone, Business – Local Centre Zone and Business – Mixed Use Zone (with the exception of specified non-urban town and local centres and Mixed

Use Zone adjacent to those specified centres) by snot providing limits on parking for subdivision, use and development other than for office activities, education facilities and hospitals.

(6A) Encourage activities providing no or reduced on-site parking (other than other for accessible parking) where it will enable better built form outcomes.

(6B) Encourage the use of public transport, walking and cycling trips and manage effects on the safe and efficient operation of the transport network by limiting the supply of on-site parking for office activities, education facilities and hospitals in the Business – Metropolitan Centre Zone, Business – Town Centre Zone, Business – Local Centre Zone and Business – Mixed Use Zone.

(7) [Deleted]

(8) [Deleted]

(9) Provide for flexible approaches to parking, which use land and parking spaces more efficiently, and reduce incremental and individual parking provision.

(10) Provide for non-accessory parking where:

(a) the proposal and the type of parking will reinforce the efficient use of land or planned growth and intensification provided for in this plan for the site or locality; and

(b) there is an undersupply or projected undersupply of parking to service the area having regard to all of the following:

(i) the efficient use of land to rationalise or consolidate parking resources in centres;

(ii) the availability of alternative transport modes, particularly access to the existing and planned public transport;

(iii) the type of parking proposed;

(iv) existing parking survey information; and

(v) the type of activities in the surrounding area and their trip characteristics.

(11) Discourage the development of long-term non-accessory parking in the Business – City Centre Zone and the Centre Fringe Office Control as shown on the planning maps to:

(a) recognise and support the high level of accessibility these areas have to the public transport; and

(b) minimise the growth in private vehicle trips by commuters during peak periods.

(12) Control the development of long-term non-accessory parking in the Business – Metropolitan Centre Zone, Business – Town Centre Zone, Business – Local Centre Zone and in the Business – Mixed Use Zone so that the parking does not undermine:

(a) the efficient use of land or growth and intensification provided for in this plan for the site or locality; and

(b) the use of public transport in these zones.

(13) Provide for park-and-ride and public transport facilities which are located and designed to support the public transport network by:

(a) locating in proximity to public transport stations, stops and terminals;

(b) growing public transport patronage to assist in relieving congested corridors by encouraging commuters to shift to public transport;

(c) making public transport easier and more convenient to use, thereby attracting new users;

(d) improving the operational efficiency of the public transport network;

(e) extending the catchment for public transport into areas of demand where it is not cost-effective to provide traditional services or feeders;

(f) reinforcing existing and future investments on the public transport network; and

(g) providing free, secure and covered parking for bicycles.

(14) Support increased cycling and walking by:

(a) requiring larger developments to provide bicycle parking;

(b) requiring end-of-trip facilities, such as showers and changing facilities, to be included in office, educational and hospital developments with high employee or student numbers; and

(c) providing for off-road pedestrian and bicycle facilities to complement facilities located within the road network.

Comment

- Parking will be provided at reduced rates with 1 in 10 dwellings having parking spaces, and communal and visitor parking provided at a ratio of 1 space per 10 dwellings. There will also be the provision of car share spaces at a ratio of 1 in every 11.5 dwellings. The majority of parking spaces will be provided in Local Hubs, which will ensure that the Residential Precincts have a high-level of amenity, and a quality compact urban form.
- The parking philosophy will mean an efficient use of land, and will encourage the use of active transport modes and public transport.
- The Local Hubs and Neighbourhood Service Hubs will provide pick-up/drop off points, bicycle parking spaces, electric vehicle charging points.
- The proposed electric public transport network will connect and integrate with the existing public transport network at Takanini and Papakura Train Stations.

Policies – Loading

(15) Require access to loading facilities to support activities and minimise disruption on the adjacent transport network.

(16) Provide for on-site or alternative loading arrangements, including on-street loading or shared loading areas, particularly in locations where it is desirable to limit access points for reasons of safety, amenity and road operation.

Comment

- Loading facilities are provided at the Local Hubs and Neighbourhood Service Hubs minimising disruption within the Residential Precinct and the wider transport network.
- The Town Centre has appropriate and separated loading areas to ensure efficiency in the roading network and safe vehicle movements

Policies – Design of parking and loading

(17) Require parking and loading areas to be designed and located to:

(a) avoid or mitigate adverse effects on the amenity of the streetscape and adjacent sites;

(b) provide safe access and egress for vehicles, pedestrians and cyclists;

(c) avoid or mitigate potential conflicts between vehicles, pedestrians and cyclists; and

(d) in loading areas, provide for the separation of service and other vehicles where practicable having regard to the functional and operational requirements of activities.

(18) Require parking and loading areas to be designed so that reverse manoeuvring of vehicles onto or off the road does not occur in situations which will compromise:

(a) the effective, efficient and safe operation of roads, in particular arterial roads;

(b) pedestrian safety and amenity, particularly within the centre zones and Business – Mixed Use Zone; and

(c) safe and functional access taking into consideration the number of parking spaces served by the access, the length of the driveway and whether the access is subject to a vehicle access restriction.

(19) Require park-and-ride, non-accessory parking and off-site parking facilities and their access points to:

(a) be compatible with the planning and design outcomes identified in this plan for the relevant zone;

(b) take into account the implementation of any relevant future transport projects or changes to the transport network identified in any statutory document (including the Long Term Plan or Regional Land Transport Plan) where implementation is likely;

(c) be accessible, safe and secure for users with safe and attractive pedestrian connections within the facility and to adjacent public footpaths;

(d) provide an attractive interface between any buildings, structures or atgrade parking areas and adjacent streets and public open spaces. Depending on location and scale, this may include:

(i) maintaining an active frontage through sleeving and/or an interesting appearance through use of architectural treatments so that the facility contributes positively to the pedestrian amenity and to any retail, commercial or residential uses along the road it fronts;

(ii) appropriate screening, such as exterior panelling, for any parking building; and

(iii) planting and other landscaping.

(e) provide for any buildings to be adapted or readily dismantled for other uses if no longer required for parking. In particular, the floor-to-ceiling height of a parking building at street level should be capable of conversion to other activities provided for in the zone; and

(f) be managed and operated so that the facility avoids adverse effects on the efficient, effective and safe operation of the transport network including:

(i) the safety of pedestrians and cyclists;

(ii) amenity for pedestrians;

(iii) queuing on the road and conflict at access points to the facility; and

(iv) the operation of public transport services and related infrastructure.

Comment

- The at grade parking areas are located within the Local Hubs and have been designed to ensure safety and efficiency. Hard and soft landscaping is provided to ensure a high-level of amenity. The parking areas are generally located behind proposed buildings, which will ensure the streetscape is enhanced with activity. The buildings include apartments and commercial tenancies creating activation and passive surveillance opportunities of the car-parking areas.
- Flexibility and adaptability of design had also been provided, allowing future land-uses to occupy the current at-grade parking areas, if desired.

Policies – Access

(20) Require vehicle crossings and associated access to be designed and located to provide for safe, effective and efficient movement to and from sites and minimise potential conflicts between vehicles, pedestrians, and cyclists on the adjacent road network.

(21) Restrict or manage vehicle access to and from sites adjacent to intersections, adjacent motorway interchanges, and on arterial roads, so that:

(a) the location, number, and design of vehicle crossings and associated access provides for the efficient movement of people and goods on the road network; and

(b) any adverse effect on the effective, efficient and safe operation of the motorway interchange and adjacent arterial roads arising from vehicle access adjacent to a motorway interchange is avoided, remedied or mitigated.

(22) Restrict vehicle access across the Vehicle Access Restriction – General Control as shown on the planning maps within the Business – City Centre Zone to:

(a) give high priority to pedestrian movement, safety and amenity along the main pedestrian streets in the Business – City Centre Zone; and

(b) provide for continuity of building frontage and associated activities at street level.

(23) Provide for the continued use of existing vehicle access affected by the Key Retail Frontage Control as shown on the planning maps and Vehicle Access Restriction – General Control in the Business – City Centre Zone where the effects of the activity and use of the vehicle access are the same or similar in character, intensity and scale which existed on 30 September 2013.

(24) Control alterations to or rationalisation of existing vehicle access affected by the Key Retail Frontage Control and Vehicle Access Restriction – General Control in the Business – City Centre Zone where there is a change in the character, intensity or scale of the activity and use of the existing vehicle access.

(25) Discourage new vehicle access across the Key Retail Frontage Control in the Business – Metropolitan Centre Zone, Business – Town Centre Zone and Business – Mixed Use Zone to:

(a) give high priority to pedestrian movement, safety and amenity; and

(b) provide for continuity of building frontage and associated activities at street level.

(26) Limit new vehicle access across the General Commercial Frontage Control as shown on the planning maps in the Business – Metropolitan Centre Zone, Business – Town Centre Zone and Business – Mixed Use Zone to:

(a) support pedestrian safety and amenity; and

(b) provide for continuity of building frontage and associated activities at street level.

Comment

- Vehicle crossings and access has been designed to ensure safety of pedestrians and safe vehicle movements. The reduction of vehicles in the Residential Precinct minimises the requirements for vehicle crossings and access, ensuring pedestrians have priority.
- Vehicle crossings on Sunfield Loop Road are also minimised, avoiding conflicts between movement modes.

Transport Summary

Overall, it is considered that the proposal is consistent with the objectives and policies for Chapter E27 – Transport, given:

- The proposal will enable an integrated transport network, connecting a variety of modes including private vehicles, public transport throughout Sunfield and connecting to nearby train stations, and active modes including cycling, walking and micromobility.
- The traffic generation effects resulting from Sunfield can be appropriately managed given the restriction on parking numbers and private vehicles, the provision of public transport, active mode networks, and local intersection upgrades. Sunfield will provide for a community that can live, work and play within the same local area.
- The internal roading layout, parking areas, vehicular access, and the appropriate separation of public transport and active modes, will create a safe and efficient movement network within Sunfield which connects appropriately to the external network.
- Proposed conditions will ensure impacts are monitored and mitigated, for example, through the use of travel plans.

Chapter E30 – Contaminated Land

Objectives

(1) The discharge of contaminants from contaminated land into air, or into water, or onto or into land are managed to protect the environment and human health and to enable land to be used for suitable activities now and in the future.

Policies

(1) Identify and record details of land containing elevated levels of contaminated in a public register.
(2) Require any use or development of land containing elevated levels of contaminants resulting in discharges to air, land or water to manage or remediate the contamination to a level that:
(a) Allows contaminants to remain in the ground / groundwater, where it can be demonstrated that the level of residual contamination is not reasonably likely to pose a significant adverse effect on human health or the environment; and
(b) Avoids adverse effects on potable water supplies; and
(c) Avoids, remedies or mitigates significant adverse effects on ecological values, water quality, human health and amenity values;
while taking into account all of the following:
(d) The physical constraints of the site and operational practicalities
(e) The financial implications of the investigation, remediation, management and monitoring options
(f) The use of best practice contaminated land management, including the preparation and consideration of preliminary and detailed site investigations, remedial action plans, site validation reports and site management plans for the identification, monitoring and remediation of contaminated land; and
(g) Whether adequate measures are in place for the transport, disposal and tracking of contaminated soil and other contaminated material removed from a site to prevent adverse effects on the environment.

Section 7.19 within the effects assessment outlines that a large volume of information within these contamination reports exist, which includes the likely activities which may cause contamination, concentration levels of contaminants where DSIs have been undertaken, and remediation measures contained within Remediation Action Plans and Site Management Plans to manage and remove contamination on site.

Overall, the potential effects associated with undertaking the proposed remediation works on human health are able to be appropriately managed by way of conditions of consent in the short-term, and will contribute positively in the long-term once the site is fully remediated, allowing appropriate activities to occupy the site in the future.

Chapter E36– Natural Hazards and Flooding

Objectives

(1) Subdivision, use and development outside urban areas does not occur unless the risk of adverse effects to people, property, infrastructure and the environment from natural hazards has been assessed and significant adverse effects are avoided, taking into account the likely long-term effects of climate change.
(2) Subdivision, use and development, including redevelopment in urban areas, only occurs where the risks of adverse effects from natural hazards to people, buildings, infrastructure and the environment are not increased overall and where practicable are reduced, taking into account the likely long term effects of climate change.
(3) Subdivision, use and development on rural land for rural uses is managed to ensure that the risks of adverse effects from natural hazards are not increased and where practicable are reduced.
(4) Where infrastructure has a functional or operational need to locate in a natural hazard area, the risk of adverse effects to other people, property, and the environment shall be assessed and significant adverse effects are sought first to be avoided or, if avoidance is not able to be totally achieved, the residual effects are otherwise mitigated to the extent practicable.
(5) Subdivision, use and development including redevelopment, is managed to safely maintain the conveyance function of floodplains and overland flow paths.
(6) Where appropriate, natural features and buffers are used in preference to hard protection structures to manage natural hazards.

Comment

The flooding and overland flow paths within Sunfield have been extensively addressed by Maven within the Three Waters Strategy Report and the Stormwater Modelling Report (Document 7), and the Infrastructure Report (Document 8). Appendix 14 of the Three Waters Strategy Report undertakes an assessment of the E36 objectives and policies. In specific regard to the objectives and policies, it is noted:

- Subdivision and development will occur outside of the urban area, however, the risks of adverse effects to people, property and infrastructure are avoided taking into account of the likely long-

term effects of climate change. Flood modelling has been completed taking into account climate change. Adverse effects associated with natural hazards are not anticipated from the subdivision, as outlined in sections 7.4, recognising that the Awakeri Wetlands will provide the attenuation for rainfall events up to 1% AEP and will limit stormwater runoff from the area by providing stormwater storage during rain fall events up to and including the 100-year event.

- Infrastructure, including stormwater ponds, channels and roads have a functional operational need within the natural hazard area, recognising that this infrastructure is essentially required to manage and control the natural hazard itself, flooding.
- The proposed infrastructure and stormwater channels will convey stormwater to appropriate locations, away from land-use activities.
- Natural features have been utilised to manage flooding, with natural streams (primarily Watercourse 2) and a natural inland wetland in the south-eastern portion of the site, providing a stormwater function and an open space amenity function. These natural features will support the attenuation and conveyance of stormwater during high rainfall periods.

Policies – Floodplains in rural areas

(16) In rural areas, avoid where practicable locating buildings accommodating more vulnerable activities in the 1 per cent annual exceedance probability (AEP) floodplain and manage other buildings and structures so that flood hazards are not exacerbated.

Policies – Floodplains in greenfield areas

(17) On greenfield land outside of existing urban areas, avoid locating buildings in the 1 per cent annual exceedance probability (AEP) floodplain.
(18) Enable flood tolerant activities to locate in the 1 per cent annual exceedance probability (AEP) floodplain where these activities do not involve buildings or structures that exacerbate the flood hazard to other properties upstream or downstream of the site.
(19) Require fences, storage of materials and goods and car parking in the 1 per cent annual exceedance probability (AEP) floodplains to not exacerbate the flood hazard to other properties upstream or downstream of the site.
(20) Require earthworks within the 1 per cent annual exceedance probability (AEP) floodplain to do all of the following:
(a) remedy or mitigate where practicable or contribute to remedying or mitigating flood hazards in the floodplain;
(b) not exacerbate flooding experienced by other sites upstream or downstream of the works; and
(c) not permanently reduce the conveyance function of the floodplain.

Comment

The proposal sits within an existing 1 per cent annual exceedance probability (AEP) floodplain, however, this in effect will be significantly controlled by the proposed stormwater management system, allowing the area to be appropriately developed.

Policies – Floodplains – general

(21) Ensure all development in the 1 per cent annual exceedance probability (AEP) floodplain does not increase adverse effects from flood hazards or increased flood depths and velocities, to other properties upstream or downstream of the site.
(22) Required the storage and containment of hazardous substances in floodplains so that the integrity of the storage method will not be compromised in a flood event.
(23) Provide for flood mitigation measures which reduce flood-related effects and provide for the reconstruction of culverts and bridges where those measures do not create or exacerbate flooding upstream or downstream or otherwise increase flood hazards.
(24) Enable the planting and retention of vegetation cover to enhance amenity values, green linkages and ecological values in floodplains as long as it does not create or exacerbate flooding upstream or downstream or otherwise increase flood hazards.
(25) When considering mitigation of flood hazards where buildings are located in floodplains, promote measures such as use of water resistant materials and flood-proof utility connections to increase resilience to flood damage.
(26) Construct accessways, including private roads, so that flood hazard risks are not increased.
(27) Enable the construction and maintenance of flood mitigation works to reduce flood risks to people, property, infrastructure and the environment.
(28) Take into account any authorised earthworks or drainage infrastructure which avoids, remedies or mitigates flood hazards when assessing proposed subdivision, use or development.

Comment

Appendix 14 of the Three Waters Strategy Report (Document 7) states:

'Western Catchment

Flood modelling shows peak water levels and peak flow in the TSWCC (Takanini Stormwater Conveyance Channel) to remain unchanged or decrease for the modelled 50%, 10% and 1% AEP storms.
Flow across the McLennan wetland spillway has a minor decrease post development.
Flow and loading on the Artillery Driveway Tunnel remain unchanged. Flood levels in the McLennan wetland downstream also remain unchanged.
There will be no exacerbation of existing natural hazards onsite or within the surrounding catchment areas, no new hazards will be created.
Eastern Catchment
Flood modelling shows water levels and peak flow downstream of the eastern catchment to remain unchanged or decrease for the modelled 50%, 10% and 1% AEP storms. Flood levels in the Papakura Stream

downstream also remain unchanged. There will be no exacerbation of existing natural hazards onsite or within the surrounding catchment areas, no new hazards will be created.'[71]

In addition, it is noted that:

- The development in the 1 per cent annual exceedance probability (AEP) floodplain does not increase adverse effects from flood hazards or increased flood depths and velocities, to other properties upstream or downstream of the site.
- Hazardous substances are not proposed to be stored within the floodplain area.
- A significant amount of planting is proposed within the open space areas and greenways to enhance amenity values, green linkages and ecological values

Policies – Overland flow paths

(29) Maintain the function of overland flow paths to convey stormwater runoff safely from a site to the receiving environment.
(30) Require changes to overland flow paths to retain their capacity to pass stormwater flows safely without causing damage to property or the environment.

Comment

- Overland flow paths will be designed with sufficient capacity to accommodate the 100-year ARI storm event including climate change, in accordance with the Auckland Council Stormwater Code of Practice OP.
- They will be unobstructed, with capacity to safely convey runoff through the development.
- Overland flows to follow either road reserves or dedicated green areas. All flow paths are proposed to be located within public areas (roads/parks) where practicable and not over private properties without easement or other approval by Auckland Council. This will minimise damage to property and the environment and ensure stormwater is conveyed safely to the receiving environment.

Natural Hazards – Summary

It is considered that the proposal will meet the objectives and policies of E36 Natural Hazards, recognising the risks of adverse effects to people, property and infrastructure are avoided taking into account of the likely long-term effects of climate change, based on the flood modelling that has been completed and the proposed stormwater management system.

[71] Three Waters Strategy Report, Document 7, Appendix 14, Table 2

Chapter D24 – Aircraft Noise Overlay

Objectives

(1) Airports and airfields are protected from reverse sensitivity effects.

(2) The adverse effects of aircraft noise on residential and other activities sensitive to aircraft noise are avoided, remedied or mitigated.

Policies

(1) Avoid the establishment of new activities sensitive to aircraft noise (except tertiary education facilities) within the 65dB Ldn noise contour in the Aircraft Noise Overlay.

(2) Avoid the establishment of new tertiary education facilities and additions or alterations to existing activities sensitive to aircraft noise (other than existing dwellings) within the 65dB Ldn noise contour in the Aircraft Noise Overlay unless all habitable rooms and all learning, amenity and recreation spaces on site are located inside buildings and achieve an internal noise environment of 40dB Ldn.

(3) Avoid establishing residential and other activities sensitive to aircraft noise at:

(a) airports/airfields except for Auckland International Airport: within the area between the 55dB Ldn and 65dB Ldn noise contours, unless the effects can be adequately remedied or mitigated through restrictions on the numbers of people to be accommodated through zoning and density mechanisms and the acoustic treatment (including mechanical ventilation) of buildings containing activities sensitive to aircraft noise excluding land designated for defence purposes;

(5) Manage residential intensification and activities sensitive to aircraft noise within areas identified for accommodating urban growth in a way that avoids reverse sensitivity effects as far as practicable, including reverse sensitivity effects between those land uses and such effects on Auckland International Airport, Ardmore Airport, Whenuapai Airbase and North Shore Airport, and that avoids, remedies or mitigates adverse aircraft noise effects on people and communities.

Comment

Section 7.13 of this report address the reverse sensitivity effects on Ardmore Airport. It is considered that through appropriate design solutions e.g. the location and size of buildings, and conditions of consent, these effects can be appropriately mitigated.

Mitigation of reverse sensitivity effects resulting from aircraft noise will occur in a variety of ways, including:

- ensuring an appropriate indoor environment;
- location of particular land-use activity types inside and outside noisy areas;
- providing appropriate outdoor spaces/activities within quieter parts of a development, and having activities which generate people located outside of the noisy areas:
- Use of no complaint covenants.

A detailed suite of conditions have been proposed by Styles Group and these have been included in the proposed set of conditions submitted with this application. They include activity restrictions, requirements for acoustic insulation and mechanical ventilation and a covenant on the records of title to ensure that no mitigation measures can be subsequently removed.

Therefore, the proposal is considered to be largely consistent with the objectives and policies of Chapter D24 – Aircraft Noise Overlay.

9.5 Summary of Objectives and Policies

The analysis of the objectives and policies can largely be drawn into two broad categories being the land-use activities proposed and those anticipated within the respective zones, and those dealing with particular and specific effects on the environment.

The proposal is largely consistent with the objectives and policies relating to effects on the environment including:

- Water quality
- Use of water
- Earthworks
- Transportation
- Contaminated land
- Natural hazards and flooding
- Aircraft noise overlay

The consistency with these objectives and policies are largely due to the ability to control, mitigate and manage the effects associated with these matters through the design response, engineering solutions, proposed methodologies, and proposed conditions.

When analysing the objectives and policies relating to the proposed land-use activities and those anticipated within the respective zones, being the Future Urban Zone and Mixed Rural zone (including subdivision), it is relatively clear that the proposal is not consistent with these objectives and policies given the proposed large urban master-planned development. However, whilst the proposal is not consistent with these respective objectives and policies it is noted that:

- The land is a logical greenfield area to develop. Sunfield is the next block to the east of the existing urban areas of Takanini and Papakura, and north of the urban area adjacent to Old Wairoa Road. This area of appropriate urban growth is then bordered to the west by Ardmore Airport, and to a lesser extent Hamlin Road/Airfield Road in the north, which creates a logical expansion for growth adjacent to a significant existing edge of urban land

- It will create better linkages and connections to the existing urban area given the close proximity to the rail network, creating efficiencies for the movement of people and infrastructure provision, and in turn reducing greenhouse gas emissions through less vehicle kilometres travelled.

- It does not fragment rural land, which would create inefficiencies for rural production.

- It will provide better access to different land-uses within the existing urban area including employment, open spaces, retail/cafes and education in areas such as Papakura, Takanini and Manukau Metropolitan Centre.

- The proposal will provide a level of certainty, with more detail than what would be provided under a plan change process.

- The proposal also manages reverse sensitivity effects with the neighbouring rural area, provides appropriate infrastructure, enhances biodiversity, and is on land generally not being of high production value.

Based on the above, and when considering the Auckland Unitary Plan: Operative in Part in the whole, it is considered that the Sunfield proposal is generally consistent with the relevant objectives and policies.

9.6 Assessment Criteria

An analysis of the assessment criteria for the restricted discretionary and controlled activities has not been undertaken, in recognition that overall, the application is a non-complying activity. An effects assessment has been undertaken at section 7 of this report, and the relevant statutory planning documents, including the objectives and policies of the Auckland Unitary Plan – Operative in Part, have been assessed at sections 8 and 9. This therefore provides a detailed response to the required considerations, and avoids unnecessary duplication in line with section 10(1) of the Act.

10 SUMMARY AND OVERVIEW OF STATUTORY REQUIREMENTS

The Fast-track Approvals Act 2024 outlines the statutory considerations for a substantive application. These have been outlined within section 6 of this report and include the below matters, which have been assessed in detail elsewhere in this report (relevant section of this report in brackets below):

- The purpose of the Fast-track Approvals Act 2024 (section 6.1.4).
- Part 2 of the RMA, particularly sections 5, 6 and 7 (section 6.3.7).
- A national policy statement (section 8).
- A New Zealand coastal policy statement (section 8.6).
- A national environmental standard (section 8)
- A plan or proposed plan (section 9).
- A planning document recognised by a relevant iwi authority and lodged with a local authority (Mana Whenua / Māori Engagement Report – Document 5, and Schedule of Provisions Relevant to Māori – Document 6).
- An assessment of the actual and potential effects on the environment (section 7)

The Fast-track Approvals Act 2024 at clause 17(1) of Schedule 5 outlines the hierarchy of criteria and other matters for assessment, and which has more weight.

17 Criteria and other matters for assessment of consent application

(1) For the purposes of section 81, when considering a consent application, including conditions in accordance with clauses 18 and 19, the panel must take into account, giving the greatest weight to paragraph (a),–
(a) the purpose of this Act; and
(b) the provisions of Parts 2, 3, 6, and 8 to 10 of the Resource Management Act 1991 that direct decision making on an application for a resource consent (but excluding section 104D of that Act); and
(c) the relevant provisions of any other legislation that directs decision making under the Resource Management Act 1991.

Given this report provides a comprehensive assessment of all relevant matters and statutory considerations, in summary it is considered that:

- The Sunfield proposal will deliver a development project with significant regional benefits, with a $4.68 billion economic impact on capital expenditure, around 24,000 full time equivalents employed over

the development period, and adding 3,854 much needed healthy homes to the southern Auckland market. It is therefore considered that the proposal meets the purpose of the Act.

- The proposal is in line with the relevant national policy statements and national environmental standards, particularly the NPS-UD given it is an appropriate location for urban growth creating a well-functioning urban environment, and the NPS-HPL given the land when reviewed in detail is generally not of high value, with urbanisation being an appropriate use.

- The proposal is generally consistent with the Auckland Unitary Plan – Operative in Part given:

    - whilst not being an 'urban' zone, the land is appropriate for urban growth.
    - the impacts from natural hazards and flooding can be managed through an appropriate stormwater management system.
    - the proposal creates an integrated transportation network connecting to the existing roading and rail network. Traffic generation will be able to be managed through restricting car-parking numbers within the development, and the provision of public transport and an extensive cycling and walking network.
    - reverse sensitivity effects on Ardmore Airport and the nearby rural land can be addressed through setbacks and building scale and location.

- The applicant has undertaken engagement with a number of parties, particularly mana whenua who are supportive of the proposal.

- The effects associated with the proposed development can be appropriately managed or mitigated, through the design response, engineering solutions, proposed methodologies, and a detailed set of proposed conditions.

Overall, it is considered that the proposal meets the requirements of the Fast-Track Approvals Act, particularly the purpose of the Act which has the greatest weight, in accordance with clause 17 of Schedule 5.

11 CONSULTATION

11.1 Mana Whenua/Iwi

Refer to the Sunfield Mana Whenua/Māori Engagement Report (Document 5) which details the consultation and engagement undertaken with the relevant Iwi Authorities on Sunfield which commenced March 2021.

The consultation with Iwi Authorities has informed the Sunfield project in several ways.

1. **Reaffirmation from mana whenua** about the initial Sunfield masterplanned community concepts. As an example, the engaged Iwi Authorities confirmed the eight Sunfield Masterplan design principles as appropriate and recommended continued engagement with mana whenua on ensuring a Te Ao Māori (Māori worldview) perspective is provided to those principles including the translation into Te Reo Māori.

2. **Direct feedback accepted** by the applicant and woven into the Sunfield Masterplan, an example being the Wai Mauri Stream Park and its development as outlined within the Wai Mauri Stream Park Landscape Design Report.

3. **Acceptance of the recommendations of two Cultural Values Assessments (CVAs) and one Cultural Impact Assessment (CIA)** – the applicant has written to the three Iwi Authorities who provided Sunfield CVAs and a CIA that the recommendations within those reports from the Iwi Authorities were acceptable and would be incorporated into the Sunfield Masterplan. These recommendations are are summarised below:

    (a) Under the Ngaati Te Ata Waiohua CVA, all activities in pages 18 – 27 are accepted and were considered during the development of technical reports and planning assessment. Those activities were discussed in hui, onsite visits, online meetings between Winton and the Iwi which are reflected in the numerous file notes and contact log. The recommended activities are captured under the following headings:

        - physical landscape,
        - cultural heritage on landscape,
        - urban development,
        - soil and earthworks,

- wai / water,
- biodiversity,
- Awakeri Stages 2 and 3,
- open spaces,
- infrastructure,
- urban design, and
- economic development.

(b) Under the Te Akitai Waiohua CVA, Winton recognises the kaitiaki / guardian role of the Iwi especially in relation to environment and reaffirms the acceptance of the Cosgrave Road Plan Change CVA recommendations (pages 22 – 26 of that CVA). In addition to those, Te Akitai Waiohua recommends the environmental and sustainability activities provided by Ngaati Te Ata Waiohua (via their engagement and CVA) and Ngaati Tamaoho (via their engagement) are accepted by Winton given they are acceptable also to Te Akitai Waiohua. Lastly, the preservation and protection of the Iwi's cultural, kaitiaki and environmental values can be achieved through two specific precinct projects – Awakeri Stages 2 and 3 and Wai Mauri Stream Park. Consultation with the Iwi on these two specific projects within Sunfield has informed the overall Sunfield Masterplan.

(c) Under the Ngaati Whanaunga CIA, the Iwi had assessed Sunfield as having overall no impact on their cultural values. The CIA raised four specific concerns which were already informed by the technical reports and the Iwi was satisfied with the responses from the technical experts via their reports and peer reviews.

(d) Winton has also offered to the three Iwi Authorities the opportunity to co-develop an Outcomes Framework or MOU specific to their CVA / CIA, so that the recommendations which informed the Sunfield Masterplan can be captured formally and adequate resourcing (if applicable), provided for their activation.

4. **Support for the adopted Three Water Strategy for Sunfield of the incorporation of Water Sensitive Urban Design.** Water Sensitive Urban Design is a land planning and engineering design approach which integrates the urban water cycle, including stormwater, groundwater and wastewater management and water supply, to minimise environmental degradation and improve aesthetic and recreational outcomes.

5. **Support for the Awakeri Stages 2 and 3 resource consent application** (as detailed within the Sunfield Mana Whenua / Māori Engagement Report) including for the urban design and landscape design. Three of the six Iwi Authorities were heavily involved with Awakeri Stage 1, so the consistency of cultural design and thinking translated across the projects. Engagement with those three Iwi Authorities has informed the project to take an Awakeri Precinct approach in terms of Sunfield.

6. **Iwi Authorities were engaged with the applicant and their consultants on the three Habitat Objectives** which influence the initial thinking in relation to social, land and water (as detailed within the Sunfield Mana Whenua / Māori Engagement Report – Document 5).

11.2 Other Key Stakeholders

The below table provides an overview of the consultation and engagement undertaken by Winton in relation to Sunfield.

Party	Overview of Consultation / Engagement Undertaken
Auckland Council (including Watercare and Healthy Waters)	Engagement with Auckland Council (including Watercare and Healthy Waters) commenced in July 2022 and has taken several forms as detailed below. • Winton meet with senior members of Auckland Council on 20 December 2023 to discuss Sunfield and Winton's intentions for the development. Attendees from Auckland Council were: – John Duguid, Manager Central Planning Area at Auckland Council – Craig Mcilroy, General Manager of Healthy Waters – Mark Iszard, Head of Major Development at Watercare Services Limited – Andrew Chin, Head of Healthy Waters Strategic Initiatives • Awakeri Wetlands Stage 2 & 3 - Winton has entered into a Design and Consenting Deed with Auckland Council which has seen Winton undertake the design and consenting of Stages 2 and 3 of the Awakeri Wetlands (noting that Stage 3 of the Awakeri Wetlands is to be constructed on Auckland Council land). Engagement with Auckland Council has been ongoing in relation to Awakeri Wetlands Stage 2 & 3 as the design has been completed and the resource consent application progressed.

	Winton and Council have commenced discussions around entering into an Infrastructure Funding Agreement for Winton to fund and undertake the construction of Stage 2 and 3 of the Awakeri Wetlands on behalf of Auckland Council and to seek appropriate development contribution offsets for undertaking these works. Winton has been liaising predominantly with Shaun McAuley, Manager, Commercial & Property Team Healthy Waters. • A pre-application meeting with planners from the Auckland Council Premium Resource Consent team was held on 11 December 2024, where the Sunfield masterplan and proposal details as well as the key design philosophies was outlined to the Council officers.
Landowners within the Sunfield project area	Winton has undertaken significant engagement with the landowners within the Sunfield project area, this has included: • Letters being posted and delivered to all landowners which form the project area providing an introduction to Winton, the Sunfield project and contract details for Simon Ash the Winton employee responsible for Sunfield. • Onsite meetings have been held as requested and information on Sunfield and the Sunfield masterplan has been provided. • At all times, each landowner has been encouraged to provide feedback on the Sunfield concept and Sunfield masterplan. Feedback received has been incorporated into the Sunfield masterplan. • All parties have the contact details of Simon Ash and know that they can a call / email him at any time to discuss the current status of Sunfield.
Auckland Transport	Winton, through its traffic engineer Leo Hill of Commute Transportation, provided details of the Sunfield masterplan and proposal details to Auckland Transport.

Waka Kotahi	Engagement with Waka Kotahi commenced in June 2022 when Winton met with Theresa Walsh, the South Area Land – Stakeholder Engagement for Supporting Growth to discuss the Mill Road upgrade / realignment project and how it interacted with Sunfield. Engagement with Waka Kotahi has continued since this time and has included: • A submission to the Ministry of Transport on the 'Draft Government Policy Statement (Draft GPS) on land transport 2024-34 Consultation Draft' in March 2024 on the Mill Road upgrade / realignment project and how it interacted with Sunfield. • Following the Mill Road upgrade / realignment project being classified as a 'Road of National Significance' Winton contacted the project team in October 2024 and were informed that *'we have added your contact details to our database so we can be in touch when we are able to have more detailed conversations.'* Winton looks forward to this more detailed conversation in due course.
Ardmore Airport Limited	Winton sought to have engagement with Ardmore Airport Limited (AAL) the owner of Ardmore Airport in mid-2021 to discuss the Sunfield masterplan and Winton's intentions for the development, however AAL advised Winton that they were not willing to engage with Winton or discuss Sunfield. Winton then arranged a meeting with AAL's town planning consultants to discuss the Sunfield masterplan, who then advised Winton that AAL had prevented them from attending the meeting with Winton. Following a change of management at AAL, Winton met with Dave Marcellus, the CEO of Ardmore Airport Limited in October 2023. Feedback received in this meeting resulted in an amendment to the Sunfield masterplan to better improve the interface between Sunfield and Ardmore Airport. Engagement with AAL continues.

Ministry for the Environment	Winton provided details on Sunfield and the Sunfield masterplan to Ilana Miller, the General Manager Delivery & Operations Partnerships, Investment and Enablement at the Ministry of the Environment on 3 December 2024. Winton sent a letter to James Palmer, the CEO of the Ministry for the Environment which detailed the Sunfield proposal, included a copy of the Sunfield Concept Masterplan document and an offer to meet of 20 December 2024. A follow up email was sent on 23 January 2025.
First Gas Limited	Winton has undertaken extensive engagement with First Gas Limited since the inception of Sunfield. The engagement undertaken has been to ensure that 'development in the vicinity of the pipeline is undertaken in such a way that ensures public safety, that the pipeline is adequately protected and access is maintained'. Feedback received from First Gas Limited has been incorporated into the Sunfield masterplan. A letter from First Gas Limited detailing the level of engagement undertaken accompanies this application. Engagement with First gas Limited continues.
Ministry of Education	Winton's engagement with the Ministry of Education commenced in 2021 when a meeting was held with representatives of the Ministry, including Deb Taylor, Programme Manager - Land Investment and Planning at Ministry of Education, to discuss the Sunfield project and Winton proposal to include a school site with the development.
Veolia	Winton through its civil engineers, Maven, have been in contact with Veolia since the inception of Sunfield around the provision of water infrastructure to the development.
Service Providers	Winton through its civil engineers, Maven, have been in contact with service provides since the inception of Sunfield around the provision of fibre/telecommunications and power infrastructure to and within the

	development. Letters from Tuatahi First Fibre Limited, Chorus Limited and Vector Limited accompany this application.

12 CONCLUSION

Overall, it is therefore considered that Sunfield can be approved under the Fast-track Approvals Act for the following reasons:

a) Sunfield will provide significant regional and national benefits through significant economic impacts (a $4.68 billion economic impact on capital expenditure), meeting the purpose of the Act.

b) The environmental effects are anticipated and known, with the adverse effects being able to be mitigated, primarily through the design response, engineering solutions/methodologies and the proposed conditions of consent. There are positive effects associated with the retention of natural wetlands and streams, and a sustainable and efficient community with 3,854 healthy homes being provided.

c) Based on the above assessment, it is considered that Sunfield will give effect to the relevant National and Regional Policy Statements, and relevant statutory provisions, and in particular will:

- create a well-functioning urban environment;
- provide appropriate self-funded infrastructure;
- significantly contribute to development capacity in the region;
- support reductions in greenhouse gas emissions;
- protect and enhance the existing freshwater network within the catchment;
- be appropriate for urbanisation given the land, when looked at in detail, is not considered of high rural production value;
- be resilient to the current and future effects of climate change; and
- take into account the principles of the Treaty of Waitangi (Te Tiriti o Waitangi).

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