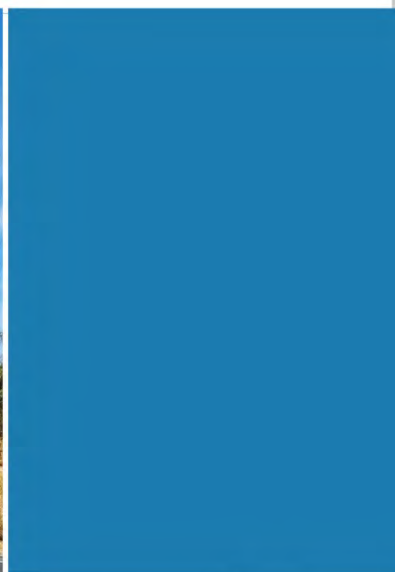
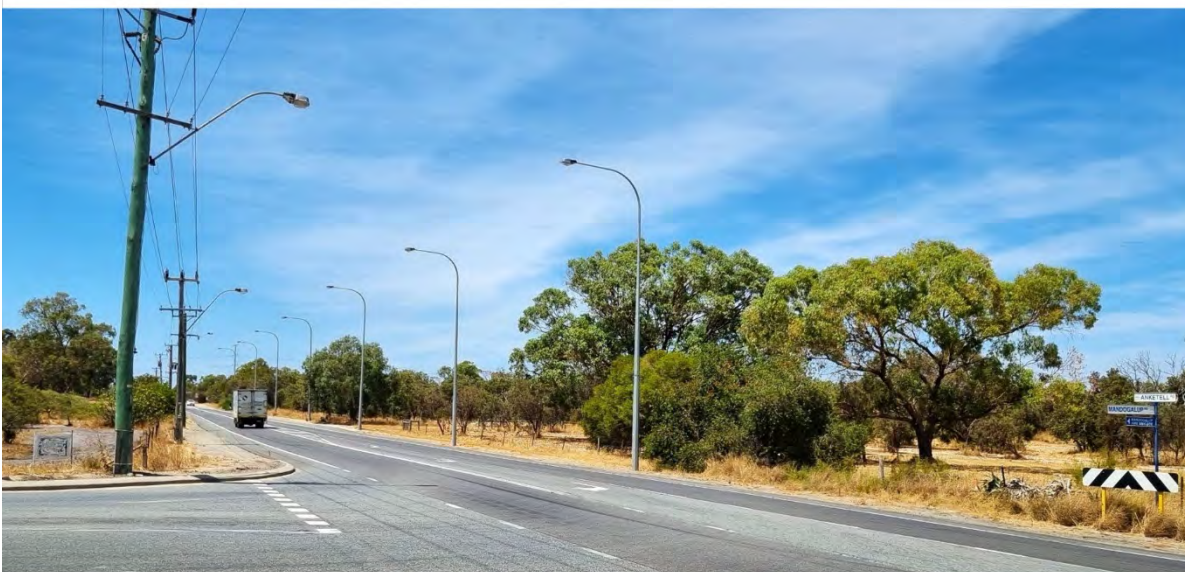


Kwinana Freeway Upgrade (Roe Highway to Mortimer Road)

Tuart Woodlands and Forests of the SCP and Banksia Woodlands of the SCP TEC habitat quality scoring

25 March 2026



Project name		Westport Roads IPT					
Document title		Kwinana Freeway Upgrade (Roe Highway to Mortimer Road) Tuart Woodlands and Forests of the SCP and Banksia Woodlands of the SCP TEC habitat quality scoring					
Contract number		Contract No 231/23					
Document number		WPRP-IPT-MR-09-RPT-EN-0020					
Status Code	Revision	Author	Reviewer		Approved for issue		
			Name	Signature	Name	Signature	Date
S4	P01	J Tindiglia	D Farrar		D Farrar		5/3/26
S4	C01	J Tindiglia	D Farrar		D Farrar		23/3/26

Disclaimer

This document is and shall remain the property of Westport Roads IPT. The document may only be used for the purpose for which it was commissioned and in accordance with the IPT Consultancy Services Agreement. Unauthorised use of this document in any form whatsoever is prohibited.

CONTENTS

1	INTRODUCTION	1
1.1	Background	1
1.2	Scope of work and purpose of this report	1
1.3	Limitations and assumptions	1
2	METHODOLOGY	2
3	RESULTS	6
3.1	Tuart TEC	6
3.2	Banksia TEC	9
4	REFERENCES	14

TABLE INDEX

Table 1	Tuart TEC habitat quality scoring framework	2
Table 2	Banksia TEC habitat quality scoring framework	3
Table 3	Tuart TEC and Banksia TEC data sources and labels	5
Table 4	Tuart TEC habitat quality scores	7
Table 5	Banksia TEC habitat quality scores.....	10

FIGURES INDEX

Figure 1	Tuart Woodlands and Forests of the Swan Coastal Plain TEC patches.....	16
Figure 2	Banksia Woodlands of the Swan Coastal Plain TEC patches.....	34

APPENDICES

Appendix A Figures

1 Introduction

1.1 Background

Main Roads Western Australia (Main Roads) is proposing to widen and upgrade approximately 20 kilometres (km) of the Kwinana Freeway between Roe Highway and Mortimer Road (the Proposed Action; the Proposal) to improve safety, reduce congestion, enhance user journeys and provide better connection to Perth's southern suburbs. These improvements, which includes additional lanes being added to both north and south carriageways, will increase the freeway's capacity, improving road user safety, traffic flow and freight efficiency.

In September 2025, Main Roads referred the Proposed Action to the Department of Climate Change, Energy, the Environment and Water (DCCEEW) (EPBC 2025/10266) for assessment under the *Environment Protection and Biodiversity Conservation Act 1999*. On 5 November 2025, a delegate of the Federal Minister for the Environment determined the Proposed Action was a controlled action, to be assessed by Preliminary Documentation (PD). The relevant Matters of National Environmental Significance (MNES) were listed as threatened species and communities (sections 18 and 18A). As part of the decision on assessment approach, DCCEEW requested additional information to support the PD, including habitat quality scoring (HQS) values using the DCCEEW HQS tools for Tuart (*Eucalyptus gomphocephala*) Woodlands and Forests of the Swan Coastal Plain threatened ecological community (Tuart TEC) and Banksia Woodlands of the Swan Coastal Plain threatened ecological community (Banksia TEC). The Banksia TEC HQS tool was developed by Woodman (2018), and the Tuart TEC HQS tool was developed by DCCEEW.

1.2 Scope of work and purpose of this report

The scope of work was to calculate the value of Tuart TEC and Banksia TEC habitat throughout the Proposed Action Area (PAA) using the provided DCCEEW HQS tools.

This report presents the methods and results of the above scope of works. The Tuart TEC and Banksia TEC habitat within the PAA is described in the below listed reports. This report should be read with reference to these reports:

- Kwinana Freeway Widening Project, Biological Survey (GHD, 2025)
- Roe Highway Widening, Targeted Flora, Vegetation and Wetland Assessment (GHD, 2026a)

1.3 Limitations and assumptions

This report has been prepared by Westport Roads IPT (WRIPT) for Main Roads and may only be used and relied on by Main Roads for the purpose agreed between WRIPT and Main Roads as set out in section 1.2 of this report. WRIPT otherwise disclaims responsibility to any person other than Main Roads arising in connection with this report. GHD also excludes implied warranties and conditions, to the extent legally permissible. The services undertaken by WRIPT in connection with preparing this report were limited to those specifically detailed in the report and are subject to the scope limitations set out in the report.

The opinions, conclusions and any recommendations in this report are based on information reviewed and assumptions made by WRIPT at the date of preparation of the report and those outlined in the utilised data sources (described in Section 2 and listed in Table 3).

2 Methodology

The Tuart TEC HQS framework was developed by DCCEEW and has been designed to evaluate a site on its adequacy for Tuart TEC and focus on understorey composition and site size. The Tuart TEC HQS framework has two components: site condition and site context. Site condition is scored out of 115 and contributes 70% of the final quality score, and site context is scored out of 130 and contributes 30% of the final quality score. The final quality score is converted to a value out of 10 and a weighted site score calculated.

The Banksia TEC HQS framework provided by DCCEEW is based on Woodman (2018) and has two components: site condition and site context. Site condition is scored out of 150 and contributes 70% of the final quality score, and site context is scored out of 100 and contributes 30% of the final quality score. The final quality score is converted to a value out of 10 and a weighted patch score calculated.

The Tuart TEC HQS framework is presented in Table 1 and the Banksia TEC HQS framework is presented in Table 2.

The quality of each Tuart TEC and Banksia TEC patch within the PAA was calculated using the relevant HQS framework based on biological data collected by GHD (2025; 2026a, b, c) and Biota (2025), Black Cockatoo data sourced from Birdlife (2025) and Phytophthora Dieback occurrence mapping completed by Glevan Consulting (2025). Data sources for each patch are noted in Table 3.

Figures showing the location of Tuart TEC and Banksia TEC patches and relevant sampling locations are provided in Appendix A.

Table 1 Tuart TEC habitat quality scoring framework

Aspect	Description	Score
Site Condition		
<u>Native understorey cover</u> Native: Species that naturally occur in southwest WA. A Species list available in section 2.3.3 of the Conservation Advice. Understorey vegetation cover: includes annual and perennial vascular plant species of both the ground layer and the shrub layer up to 3 m in height. Plots are 10 x 10m and must capture entire site.	≥80% OR ≥12 native species per plot	60
	≥60% and <80% OR ≥8 native species per plot	40
	≥50% and <60% OR ≥4 native species per plot	20
	<50% OR <4 native species per plot	0
<u>Contains a habitat role</u> Habitat role: the site contains a mean of ≥2 very large trees (≥50 cm DBH) per half hectare of any species native to southwest WA.	Site has a habitat role	15
	Site doesn't have a habitat role	0
<u>Site shows regeneration</u> Regeneration: the site displays evidence of natural regeneration of eucalypts (<i>Corymbia</i> or <i>Eucalyptus</i>) naturally occurring in southwest WA, represented by seedlings, saplings, or other sub-mature stages (<15 cm DBH) with at least a mean of 15 individuals per half hectare.	Site shows regeneration	15
	Site doesn't show regeneration	0

Aspect	Description	Score
<u>Presence of Key Fauna Species</u>	Entire site hosts key fauna	10
Key fauna species fulfill supporting ecological processes (soil turnover, seed/pollen dispersal, etc). A list of typical fauna species present in Tuart are available in section 2.4 of the Conservation Advice.	Minor Presence	0
<u>Presence of Dieback</u>	Site has no evidence of dieback	15
Dieback caused where trees are affected by known problematic pathogens, dieback, or water extraction.	Site has signs of dieback	5
	Dieback is widespread on site	0
Condition total	Out of 115	
Condition score	Condition total / 115 x 70	
Site Context		
<u>Patch size</u>	≥5 hectares	100
Patch size is calculated using rules extracted from section 3 of the conservation advice.	≥2 hectares and <5 hectares	50
Patches smaller than 0.5 ha will not be accepted.	≥0.5 hectares and <2 hectares	0
<u>Landscape Role</u>	Site has a landscape role	15
Landscape role: the site occurs in proximity (≤100 m) to another site of native vegetation of at least 1 ha in size. Other sites of native vegetation can be other sites of the ecological community and/or other vegetation where ≥50 % of the vegetation cover across all layers is comprised of plant species naturally occurring in southwest WA.	Site does not have a landscape role	0
<u>Buffer Zone</u>	Site has an appropriate buffer zone	15
A buffer zone is at least 30m from beyond the boundary of the Site i.e., 60 m from the outer canopy of established Tuart trees (≥15cm DBH).	Site does not have an appropriate buffer zone	0
Context total	Out of 130	
Context score	Context total / 130 x 30	
Quality		
Quality total	Out of 100, Condition score + Context score	
Final Patch Habitat Quality Score	Out of 10, Quality total / 10	
Weighted Patch Score	Final Patch Habitat Quality Score x area of patch [in PAA] (ha)	
Site Habitat Quality Score	Out of 10, All Weighted Site Scores / total impact area	

Table 2 Banksia TEC habitat quality scoring framework

Aspect	Description	Score
Site Condition		
Vegetation condition	Pristine	100
	Excellent	80
	Very Good	60
	Good	40

Aspect	Description	Score
	Degraded	20
	Completely Degraded	0
Species richness	Average native species richness within the top half of recorded range for the TEC [≥ 50 plant taxa based on DEE (2016)]	10
	Average native species richness within the bottom half of recorded range for the TEC [< 50 plant taxa based on DEE (2016)]	0
Presence of Threatened taxa	Patch is critical habitat for, and hosts Threatened taxa	10
	Patch is critical habitat for Threatened taxa	5
	Patch is not critical habitat for Threatened taxa	0
Contains State listed TEC/PEC	Patch contains WA FCT listed as State TEC	20
	Patch contains WA FCT listed as State PEC	10
	Patch does not contain WA FCT listed as either TEC or PEC	0
Presence of Dieback	Patch is dieback free	10
	Patch is partly dieback free	5
	Patch is dieback infested	0
Condition total	Out of 150	
Condition score	Condition total / 150 x 70	
Site Context		
Connectivity	Patch is continuous with remnant vegetation and forms a corridor that links different landscape units	30
	Patch is continuous with remnant vegetation that forms a medium [≥ 50 ha] to large [≥ 100 ha] local remnant	20
	Patch is within 1km of other medium to large remnants	10
	Patch is within 12km of other significant remnants and contributes to support of significant avifauna (i.e. known Black Cockatoo Breeding sites are located within 12km)	5
	Patch does not meet any of the above criteria	0
Patch size	20 hectares or more	50
	10-20 hectares	40
	5-10 hectares	30
	2-5 hectares	20
	Less than 2 hectares	10
Site location and risk	Patch is located in an area where the TEC has been extensively cleared	10
Site location and risk	Patch is located at the geographical edge of the recorded range	10
Context total	Out of 100	
Context score	Context total / 100 x 30	
Quality		
Quality total	Out of 100, Condition score + Context score	
Final Patch Habitat Quality Score	Quality total / 10	
Weighted Patch Score	Final Patch Habitat Quality Score x area of patch [in PAA] (ha)	
Site Habitat Quality Score	Out of 10, All Weighted Patch Scores / total impact area	

Table 3 Tuart TEC and Banksia TEC data sources and labels

Tuart TEC	Banksia TEC
Patch 01 / RoeTT01 in GHD (2026a) GHD quadrats: Roe2, Roe10 Phytophthora Dieback occurrence mapping (Glevan 2025)	Patch 2 / BT02 in GHD (2026a) GHD quadrats: Roe02, Roe10, Roe12 Phytophthora Dieback occurrence mapping (Glevan 2025)
Patch 01 / TT01 in GHD (2025) GHD quadrat: Kwin03 GHD Tuart TEC patch assessment: Kwin03 Phytophthora Dieback occurrence mapping (Glevan 2025)	Patch 3 / BT03 in GHD (2025) GHD quadrat: Kwin05 GHD Banksia TEC patch assessment: Kwin05 Phytophthora Dieback occurrence mapping (Glevan 2025)
Patch 02 / TT02 in GHD (2025) GHD quadrat: Kwin02 GHD Tuart TEC patch assessment: Kwin02 Phytophthora Dieback occurrence mapping (Glevan 2025)	Patch 4 / BT04 in GHD (2025); BT03 in Biota (2025) GHD quadrats: Kwin01, Kwin03 GHD Banksia TEC patch assessments: Kwin01, Kwin03 Biota quadrat: ANK36 Biota Banksia TEC patch assessments: 4, 5 Phytophthora Dieback occurrence mapping (Glevan 2025)
	Patch 5 / BT05 in GHD (2025) GHD quadrat: Kwin04 GHD Banksia TEC patch assessment: Kwin04 Phytophthora Dieback occurrence mapping (Glevan 2025)
	Patches 6 & 7 / BT06 & BT07 in GHD(2025); BT04 in Biota (2025) GHD quadrat: Kwin02 GHD Banksia TEC patch assessment: Kwin02 Biota quadrats: ANK33 Biota Banksia TEC patch assessments: 6, 7, 8 Phytophthora Dieback occurrence mapping (Glevan 2025)

3 Results

3.1 Tuart TEC

The Tuart TEC HQS calculated using the framework provided by DCCEEW is presented in Table 4. The habitat quality of the three Tuart TEC patches that intersect the PAA ranged from 3.91 (TT02) to 5.13 (TT01). The Site Habitat Quality Score for Tuart TEC within the PAA is calculated to be 4.51. The locations of the Tuart TEC patches are shown in Figure 1.

Table 4 Tuart TEC habitat quality scores

Aspect	Patch 01 / RoeTT01		Patch 01 / TT01		Patch 02 / TT02	
	Score	Comments	Score	Comments	Score	Comments
Site Condition						
Native understorey cover	40	65% average native species cover, high condition	20	51% native species cover; moderate condition	0	26% native species cover; poor condition
Contains a habitat role	0	7 very large trees in 4.942 ha (GHD, 2026c); equates to 0.71 trees per 0.5 ha. Site doesn't have a habitat role.	0	Based on vegetation type description (GHD, 2025), and Tuart tree count (trees $\geq 150\text{mm}$ DBH), patch is unlikely to contains a mean of ≥ 2 very large trees per 0.5 ha of any species native to southwest WA. Site doesn't have a habitat role.	0	Based on vegetation type description (GHD, 2025), and Tuart tree count (trees $\geq 150\text{mm}$ DBH), patch is unlikely to contains a mean of ≥ 2 very large trees per 0.5 ha of any species native to southwest WA. Site doesn't have a habitat role.
Site shows regeneration	0	No regeneration observed (pers. comm GHD 2026)	0	No regeneration observed (pers. comm GHD 2026)	0	No regeneration observed (pers. comm GHD 2026)
Presence of Key Fauna Species	0	Minor presence of key fauna species (GHD 2026b)	0	Minor presence of key fauna species (GHD 2025)	0	Minor presence of key fauna species (GHD, 2025)
Presence of Dieback	15	Site has no evidence of dieback (Category 3, uninfested and Category 15, excluded based on (Glevan Consulting, 2025))	15	Site has no evidence of dieback (Category 3, uninfested and Category 6, Permanently Uninterpretable based on (Glevan Consulting, 2025))	15	Site has no evidence of dieback (Category 3, uninfested based on (Glevan Consulting, 2025))
Condition total	55		35		15	

Aspect	Patch 01 / RoeTT01		Patch 01 / TT01		Patch 02 / TT02	
	Score	Comments	Score	Comments	Score	Comments
Condition score	33.48		21.30		9.13	
Site Context						
Patch size	50	4.924 ha	100	12.377 ha	100	8.619 ha
Landscape Role	0	Patch is located adjacent to Roe Highway, Kwinana Freeway and cleared developed areas. Site does not have a landscape role.	15	With Conservation Park (R53313) and Bush Forever site no. 270. Adjacent to native vegetation >1 ha in size. Site has a landscape role.	15	With Conservation Park (R53313) and Bush Forever site no. 270. Adjacent to native vegetation >1 ha in size. Site has a landscape role.
Buffer Zone	0	Buffer zone <30 m from boundary of PAA. Site does not have an appropriate buffer zone	15	Buffer zone >30m from boundary of PAA. Site has appropriate buffer zone.	15	Buffer zone >30m from boundary of PAA. Site has appropriate buffer zone.
Context total	50		130		130	
Context score	11.54		30		30	
Quality						
Quality total	45.02		51.30		39.13	
Final Patch Habitat Quality Score	4.51		5.13		3.91	
Area of Patch in PAA (ha)	1.66		0.68		0.70	
Weighted Patch Score	7.47		3.49		2.74	
Site habitat Quality Score	4.51					

3.2 Banksia TEC

The Banksia TEC HQS calculated using the framework provided by DCCEEW is presented in Table 5. The habitat quality of the five Banksia TEC patches that intersect the PAA ranged from 2.90 (Patch 5) to 5.50 (Patch 6 and 7). The Site Habitat Quality Score for Banksia TEC within the PAA is calculated to be 4.57.

The locations of the Banksia TEC patches are show in Figure 2.

Table 5 Banksia TEC habitat quality scores

Aspect	Patch 2 / BT02		Patch 3 / BT03		Patch 4 / BT04		Patch 5 / BT05		Patches 6 & 7 / BT06 & BT07	
	Score	Comments	Score	Comments	Score	Comments	Score	Comments	Score	Comments
Site Condition										
Vegetation condition	60	Very Good	40	Good	40	Good within DE, Very Good to Excellent in broader patch	20	Degraded in DE, Good in broader patch	40	Good in DE, Very Good in broader patch
Species richness	0	Average native species richness from sampled quadrats in patch is 36.67 plant taxa	0	Native species richness from sampled quadrat in patch is 39 plant taxa	0	Average native species richness from sampled quadrats in patch is 26 plant taxa	0	Native species richness from sampled quadrat in patch is 26 plant taxa	0	Native species richness from sampled quadrat in patch is 39 plant taxa
Presence of Threatened taxa	0	Patch is not critical habitat for Threatened taxa	0	Patch is not critical habitat for Threatened taxa	0	Patch is not critical habitat for Threatened taxa	0	Patch is not critical habitat for Threatened taxa	0	Patch is not critical habitat for Threatened taxa
Contains State listed TEC/PEC	0	GHD (2025b) determined quadrats within patch as FCT28 and FCT23a. Patch does not contain WA FCT listed as either TEC or PEC.	0	GHD (2025a) determined quadrat within patch as FCT23a. Patch does not contain WA FCT listed as either TEC or PEC.	0	GHD (2025a) determined quadrats within patch as FCT28. Biota (2025) mapped patch as FCT28. Patch does not contain WA FCT	0	GHD (2025a) determined quadrat within patch as FCT21a. Patch does not contain WA FCT listed as either TEC or PEC.	10	GHD (2025a) determined quadrat within patch as FCT28. Biota (2025) mapped patch as FCT 24 and FCT28. Patch contains WA FCT listed as PEC.

Aspect	Patch 2 / BT02		Patch 3 / BT03		Patch 4 / BT04		Patch 5 / BT05		Patches 6 & 7 / BT06 & BT07	
	Score	Comments	Score	Comments	Score	Comments	Score	Comments	Score	Comments
						listed as either TEC or PEC.				
Presence of Dieback	10	Patch is dieback free (Category 3, uninfested based on (Glevan Consulting, 2025))	10	Patch is dieback free (Category 3, uninfested and Category 12, temporarily uninterpretable based on (Glevan Consulting, 2025))	10	Patch is dieback free (Category 3, uninfested and Category 6, Permanently Uninterpretable based on (Glevan Consulting, 2025))	10	Patch is dieback free (Category 3, uninfested and Category 6, Permanently Uninterpretable based on (Glevan Consulting, 2025)).	10	Patch is dieback free (Category 3, uninfested and Category 6, Permanently Uninterpretable based on (Glevan Consulting, 2025)).
Condition total	70		50		50		30		60	
Condition score	32.67		23.33		23.33		14.00		28.00	
Site Context										
Connectivity	5	Patch is located adjacent to Roe Highway, Kwinana Freeway and cleared developed areas.	10	Patch is located adjacent to Kwinana Freeway, developed and cleared areas. Patch is located within 1km of Harry Waring	30	Patch is within Beeliar Conservation Park (R53313) and Bush Forever site no. 270. Patch is continuous with remnant	10	Patch is located adjacent Kwinana Freeway and other transport infrastructure. Patch is within 1 km Beeliar Conservation Park (R53313)	30	Patch is within Beeliar Conservation Park (R53313) and Bush Forever site no. 269. Patch is continuous with remnant vegetation and forms a

Aspect	Patch 2 / BT02		Patch 3 / BT03		Patch 4 / BT04		Patch 5 / BT05		Patches 6 & 7 / BT06 & BT07	
	Score	Comments	Score	Comments	Score	Comments	Score	Comments	Score	Comments
		Patch is not located within 1 km of medium to large remnants. Patch is within 12km of other significant remnants (e.g. Beeliar Conservation Park, Thomsons Lake Nature Reserve). Black Cockatoo confirmed breeding area is within 12km (BirdLife, 2025)		Marsupial Reserve (Class A, R29241), which is a large remnant.		vegetation and forms a corridor that links different landscape units.		and Bush Forever site no. 269.		corridor that links different landscape units.
Patch size	40	14.36 ha	40	19.07 ha	50	62.49	30	6.43 ha	50	52.10 ha
Site location and risk	10	Patch is in Perth metropolitan area, on the SCP. Patch is located in an area where	10	Patch is in Perth metropolitan area, on the SCP. Patch is located in an area where the TEC has	10	Patch is in Perth metropolitan area, on the SCP. Patch is located in an area where the TEC has been	10	Patch is in Perth metropolitan area, on the SCP. Patch is located in an area where the TEC has been	10	Patch is in Perth metropolitan area, on the SCP. Patch is located in an area where the

Aspect	Patch 2 / BT02		Patch 3 / BT03		Patch 4 / BT04		Patch 5 / BT05		Patches 6 & 7 / BT06 & BT07	
	Score	Comments	Score	Comments	Score	Comments	Score	Comments	Score	Comments
		the TEC has been extensively cleared		been extensively cleared		extensively cleared		extensively cleared.		TEC has been extensively cleared.
	0	Patch is not located at the geographical edge of the recorded range	0	Patch is not located at the geographical edge of the recorded range	0	Patch is not located at the geographical edge of the recorded range	0	Patch is not located at the geographical edge of the recorded range.	0	Patch is not located at the geographical edge of the recorded range.
Context total	55		60		90		50		90	
Context score	16.50		18.00		27.00		15.00		27.00	
Quality										
Quality total	49.17		41.33		50.33		29.00		55.00	
Final Patch Habitat Quality Score	4.92		4.13		5.03		2.90		5.50	
Area of Patch in PAA (ha)	1.88		3.41		2.65		1.1		1.54	
Weighted Patch Score	9.24		14.09		13.34		3.19		8.47	
Site habitat Quality Score	4.57									

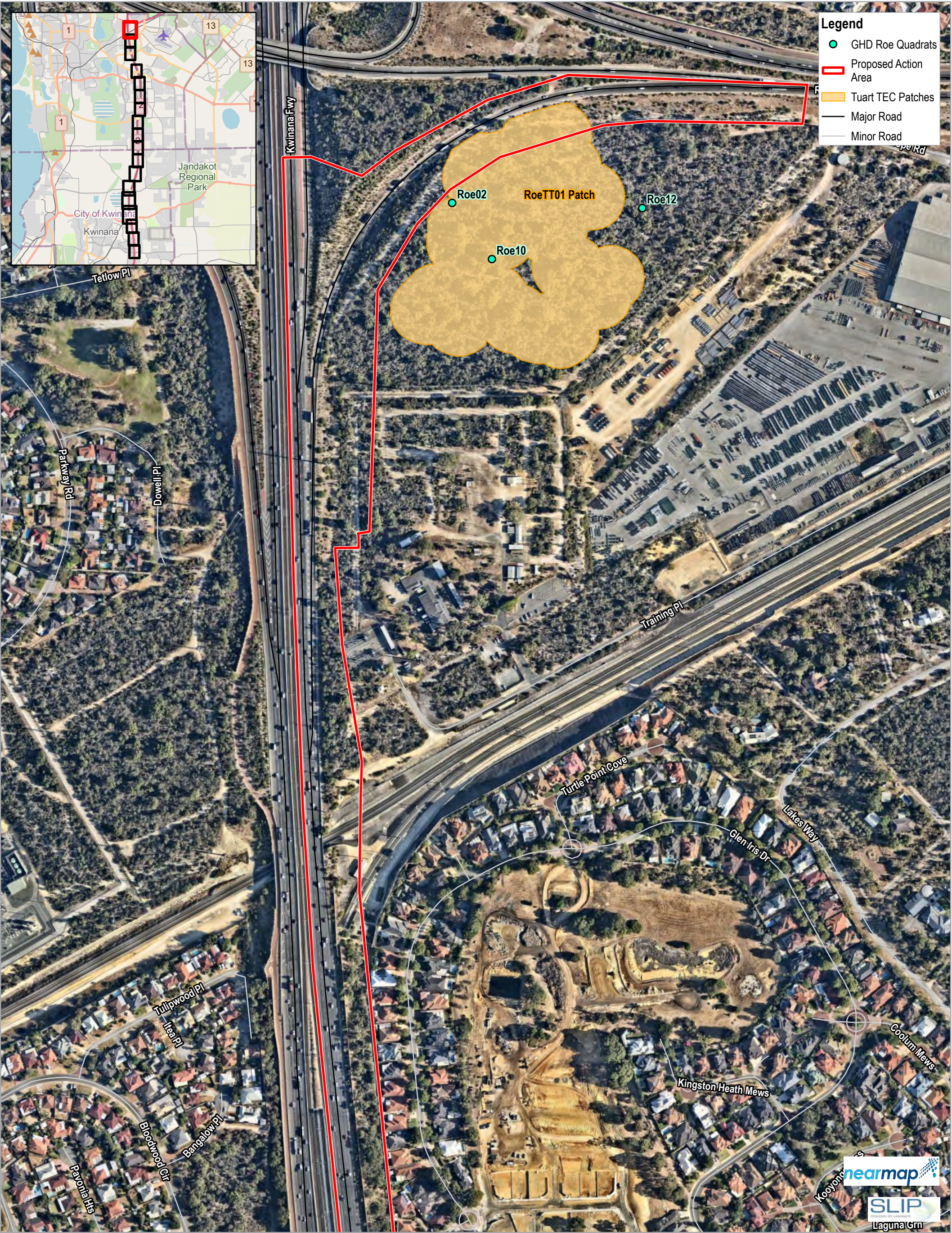
4 References

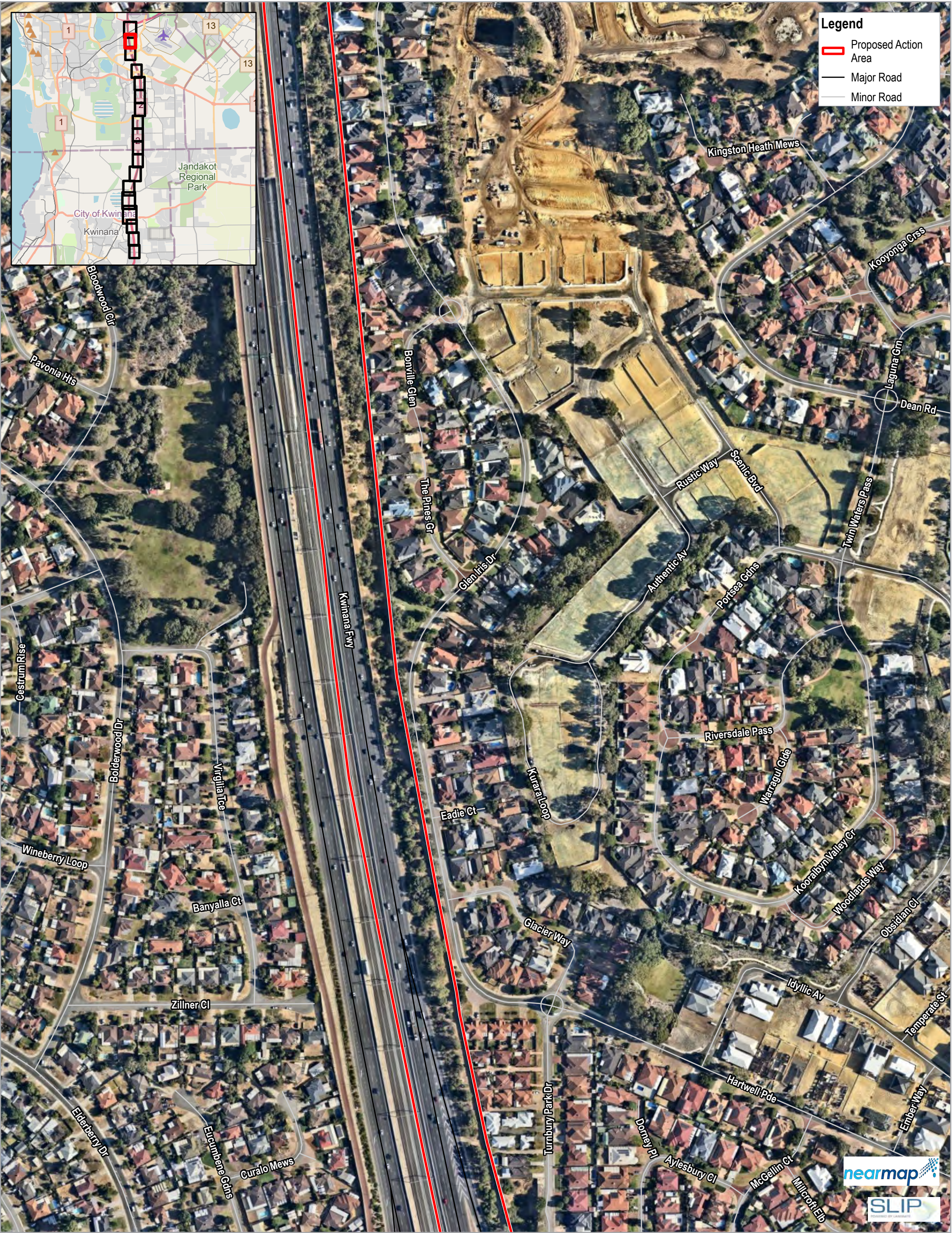
- Biota. (2025). Anketell Rd Upgrade – Consolidated Biological Report. Unpublished Report prepared for Main Roads WA.
- BirdLife. (2025). Black Cockatoo Roosting and Nesting Data [Kwinana Freeway] [Dataset].
- DEE. (2016). Approved Conservation Advice (incorporating listing advice) for the Banksia Woodlands of the Swan Coastal Plain ecological community. Department of the Environment and Energy. <http://www.environment.gov.au/biodiversity/threatened/communities/pubs/131-conservation-advice.pdf>
- GHD. (2025). Kwinana Freeway Widening Project, Biological Survey. Unpublished Report prepared for Main Roads WA.
- GHD. (2026a). Roe Highway widening – Targeted Flora, Vegetation and Wetland Assessment. Unpublished Report prepared for Main Roads WA.
- GHD. (2026b). Roe Highway widening – Basic Fauna Survey. Unpublished Report prepared for Main Roads WA.
- GHD. (2026c). Roe Highway widening – Targeted Black Cockatoo Survey. Unpublished Report prepared for Main Roads WA.
- Glevan Consulting. (2025). Phytophthora Dieback Occurrence Report for Kwinana Freeway Upgrade Assessment. Glevan Consulting.

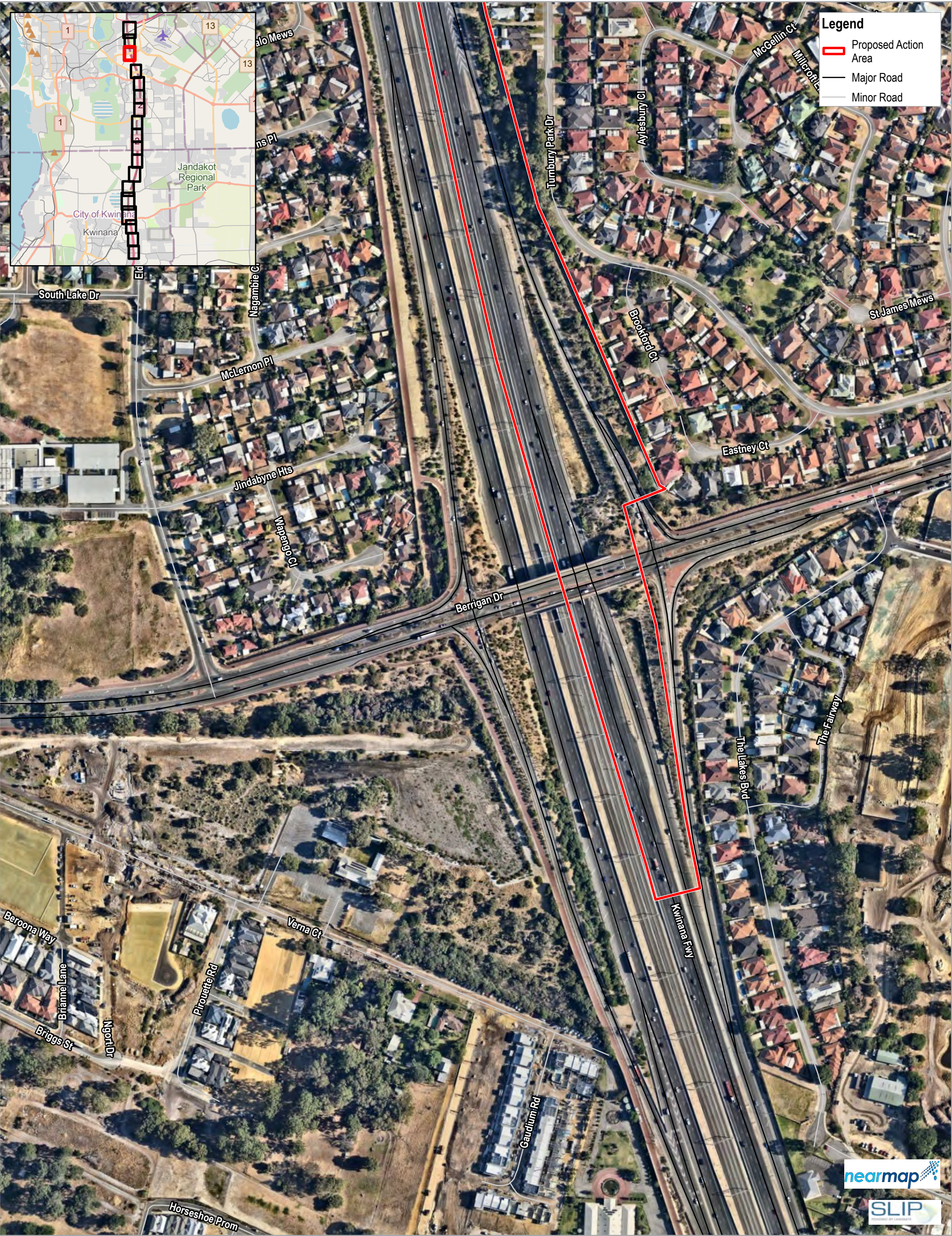
Figures

Figure 1 Tuart Woodlands and Forests of the Swan Coastal Plain TEC patches

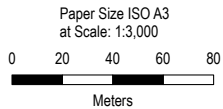
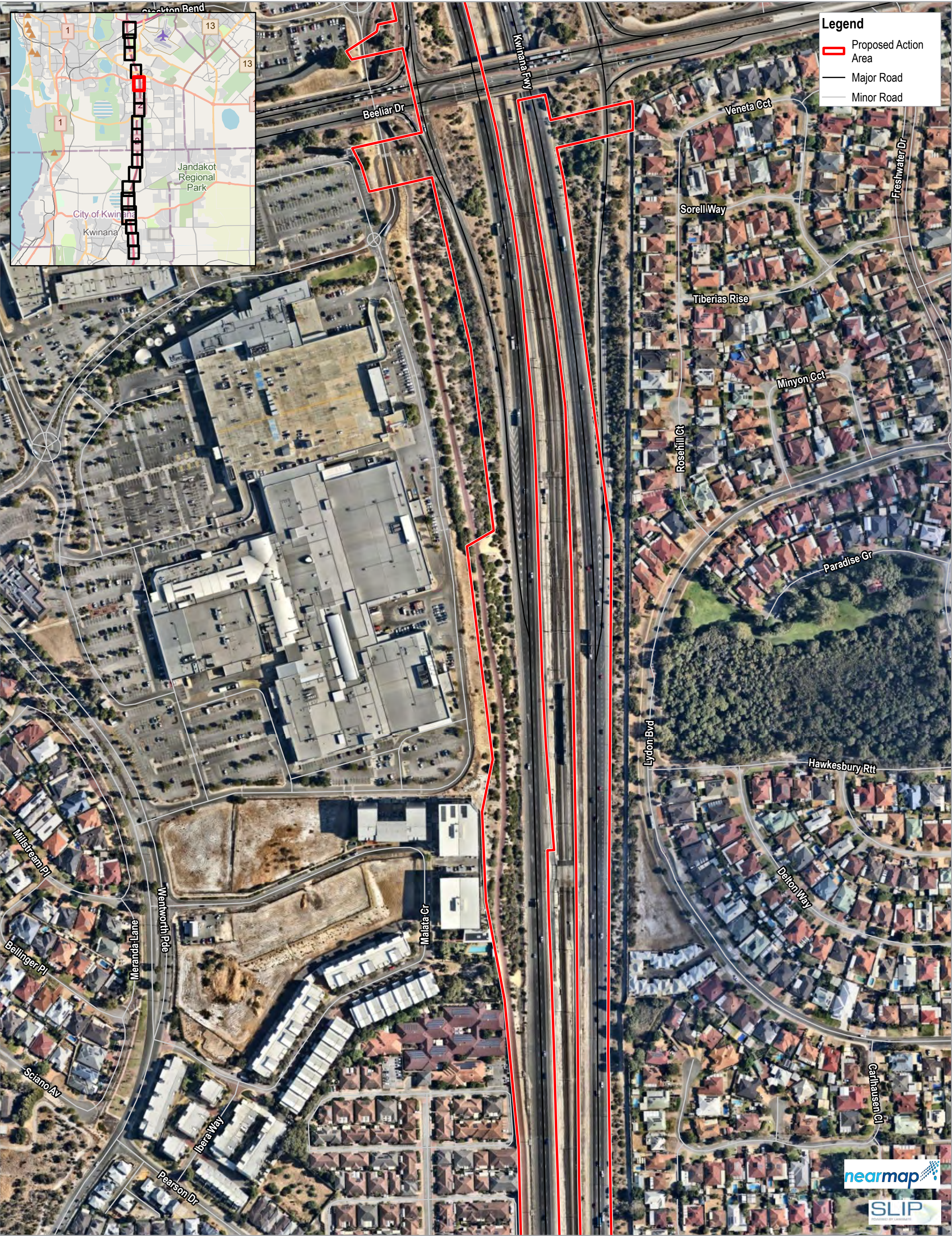
Figure 2 Banksia Woodlands of the Swan Coastal Plain TEC patches



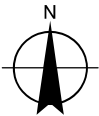








Map Projection: Transverse Mercator
Horizontal Datum: GDA2020
Grid: GDA2020 MGA Zone 50

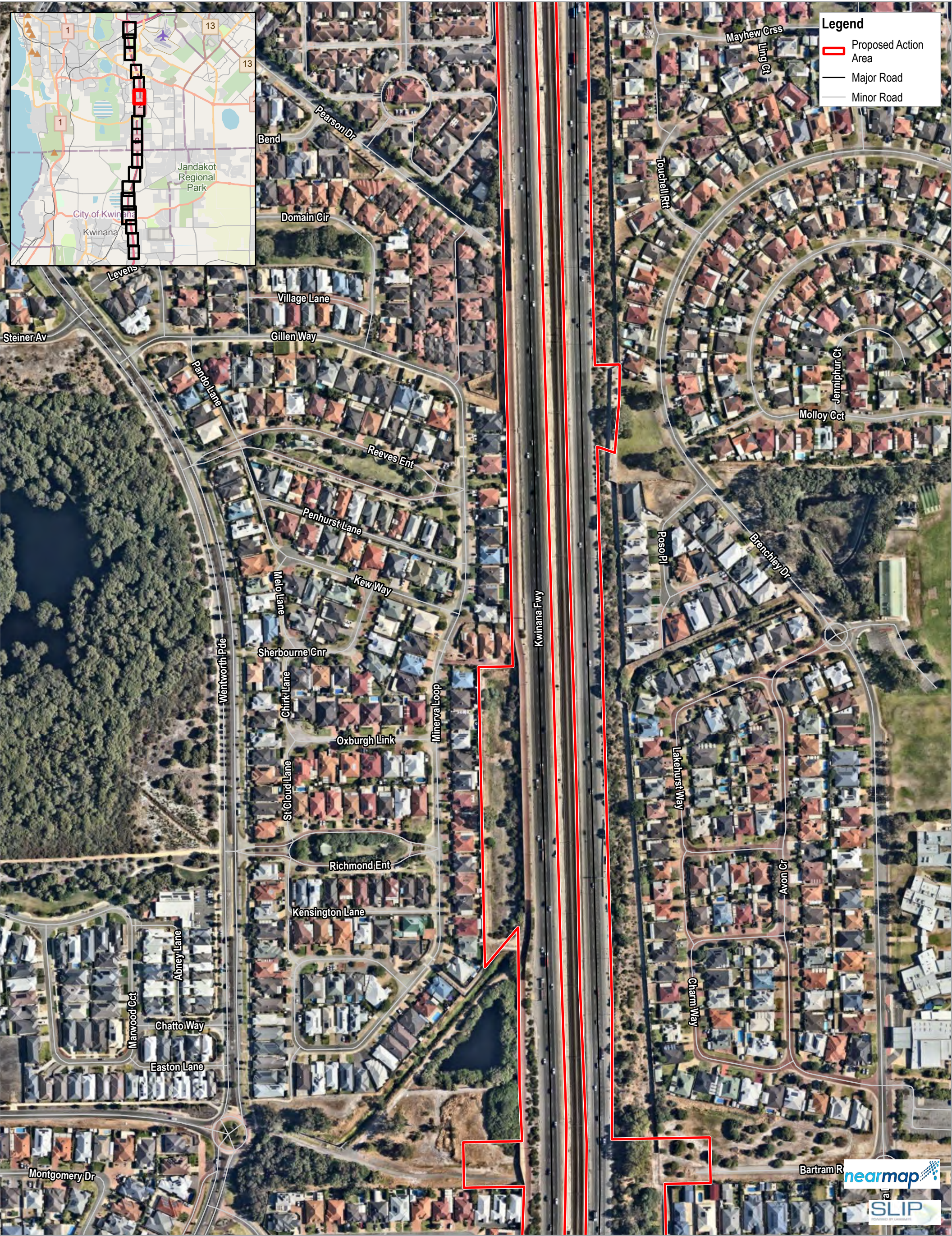


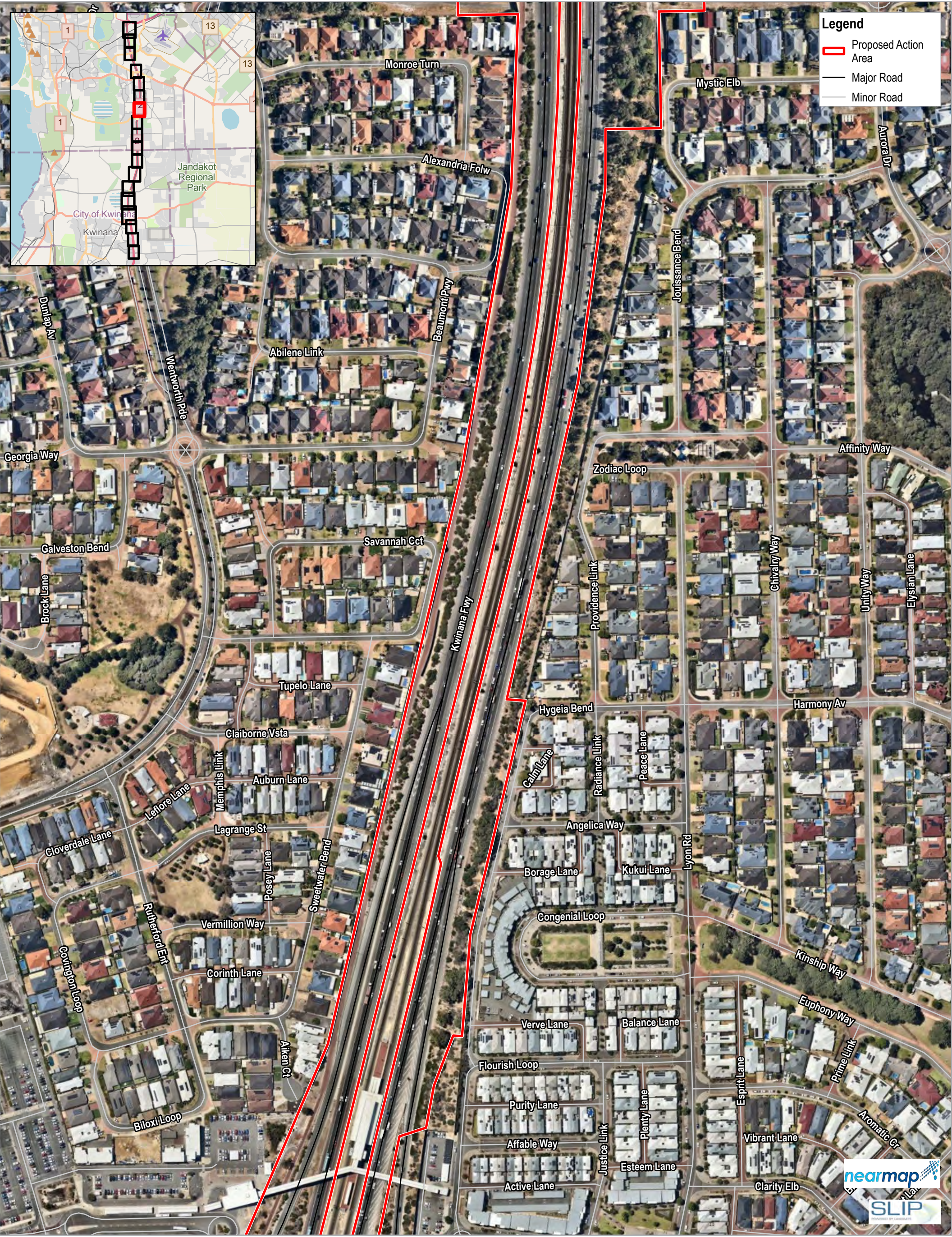
Main Roads WA
Kwinana Freeway Upgrade (Roe
Highway to Mortimer Road),
Habitat Quality Scoring

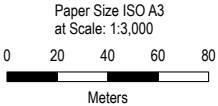
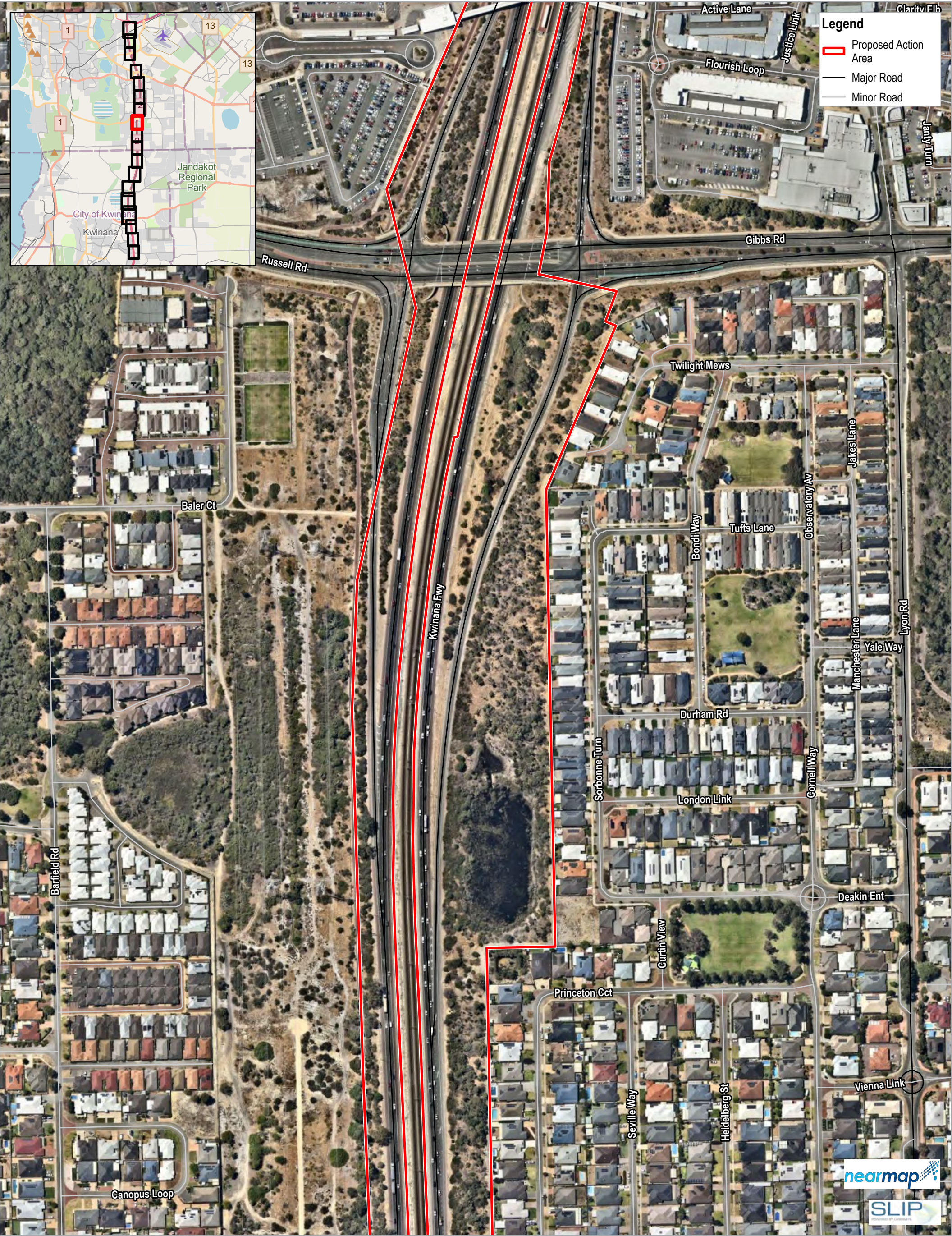
Tuart Woodlands and Forests of the
Swan Coastal Plain TEC Patches

Project No. 12657323
Revision No. 0
Date 9/03/2026

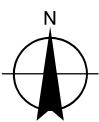
FIGURE 1.5







Map Projection: Transverse Mercator
Horizontal Datum: GDA2020
Grid: GDA2020 MGA Zone 50

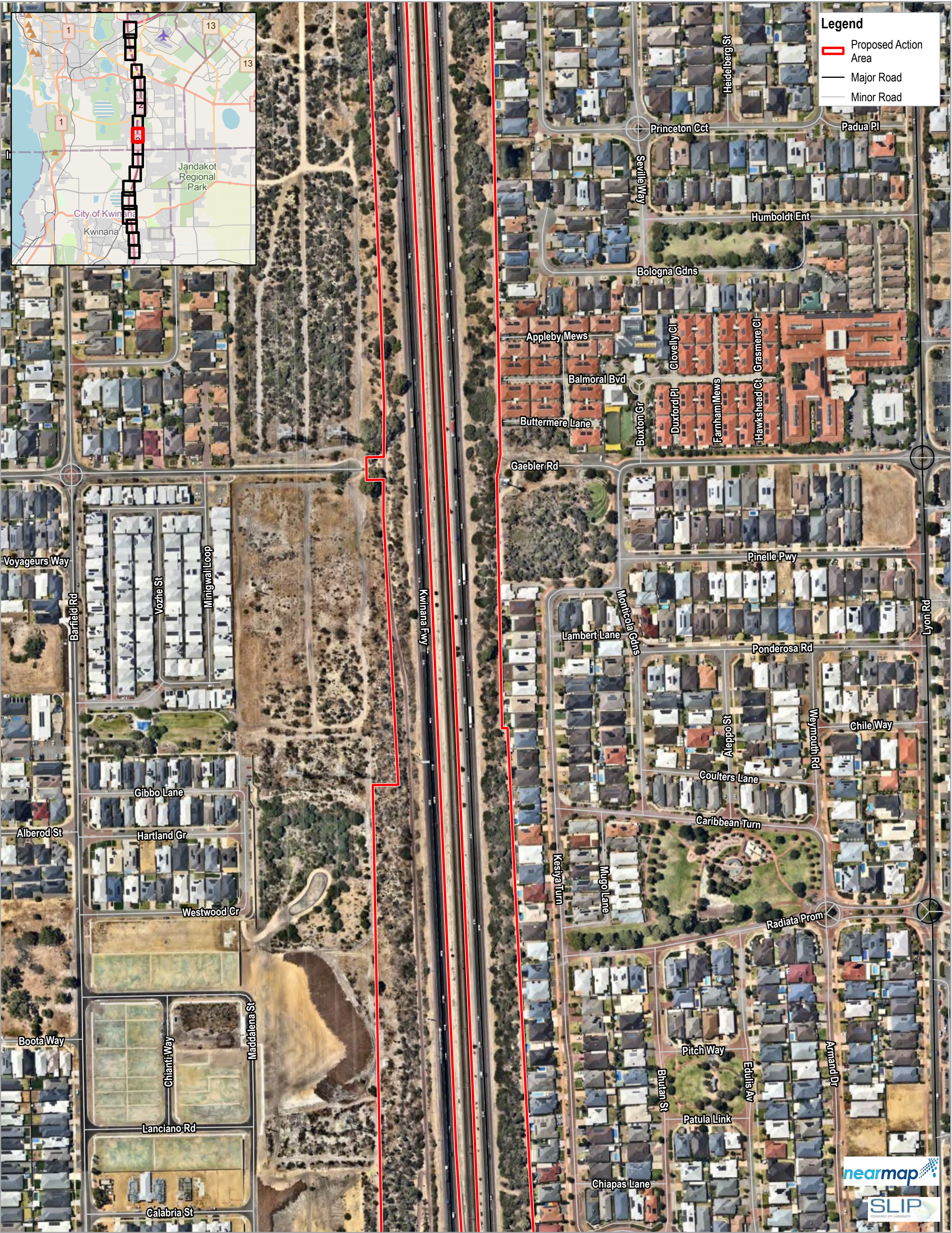


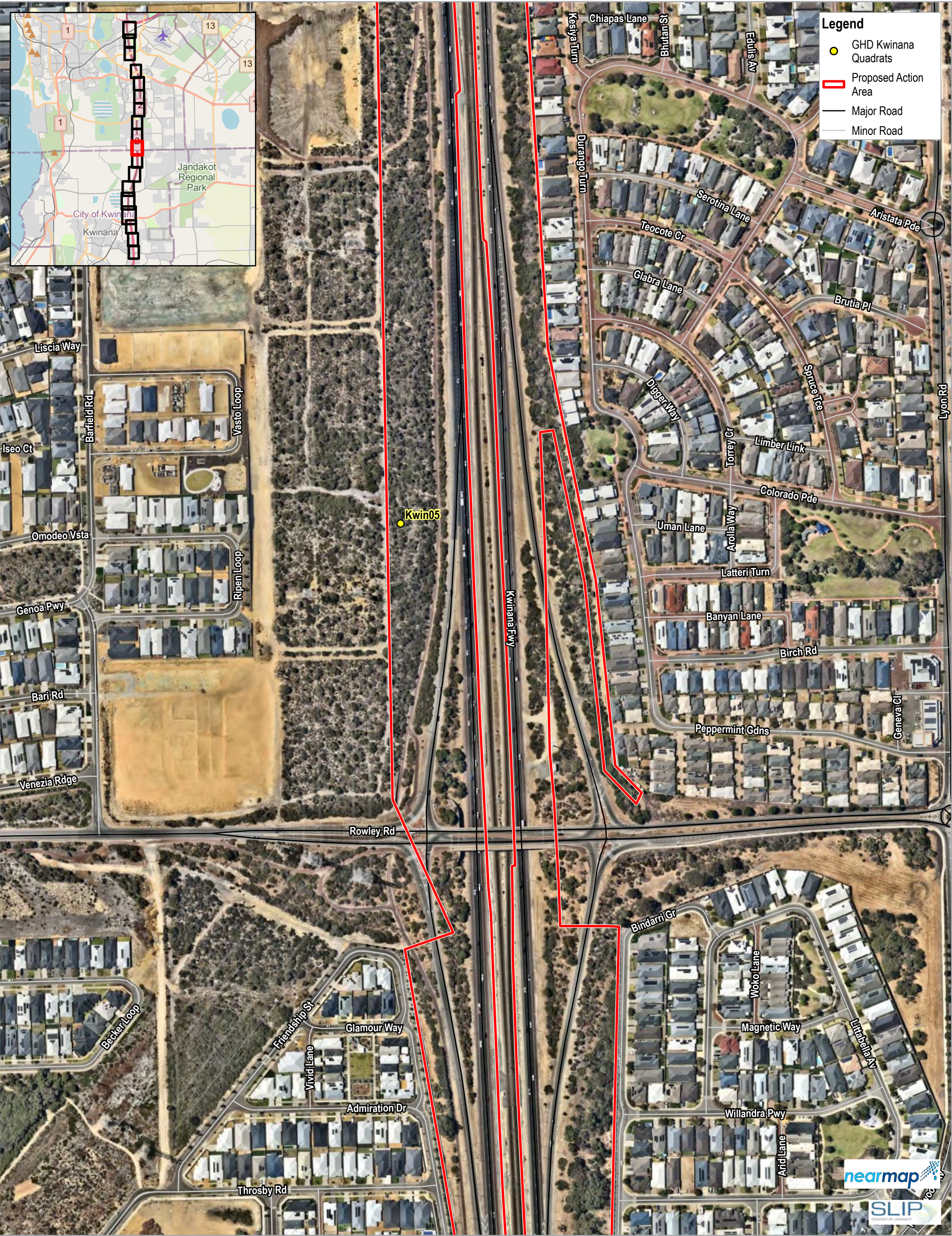
Main Roads WA
Kwinana Freeway Upgrade (Roe
Highway to Mortimer Road),
Habitat Quality Scoring

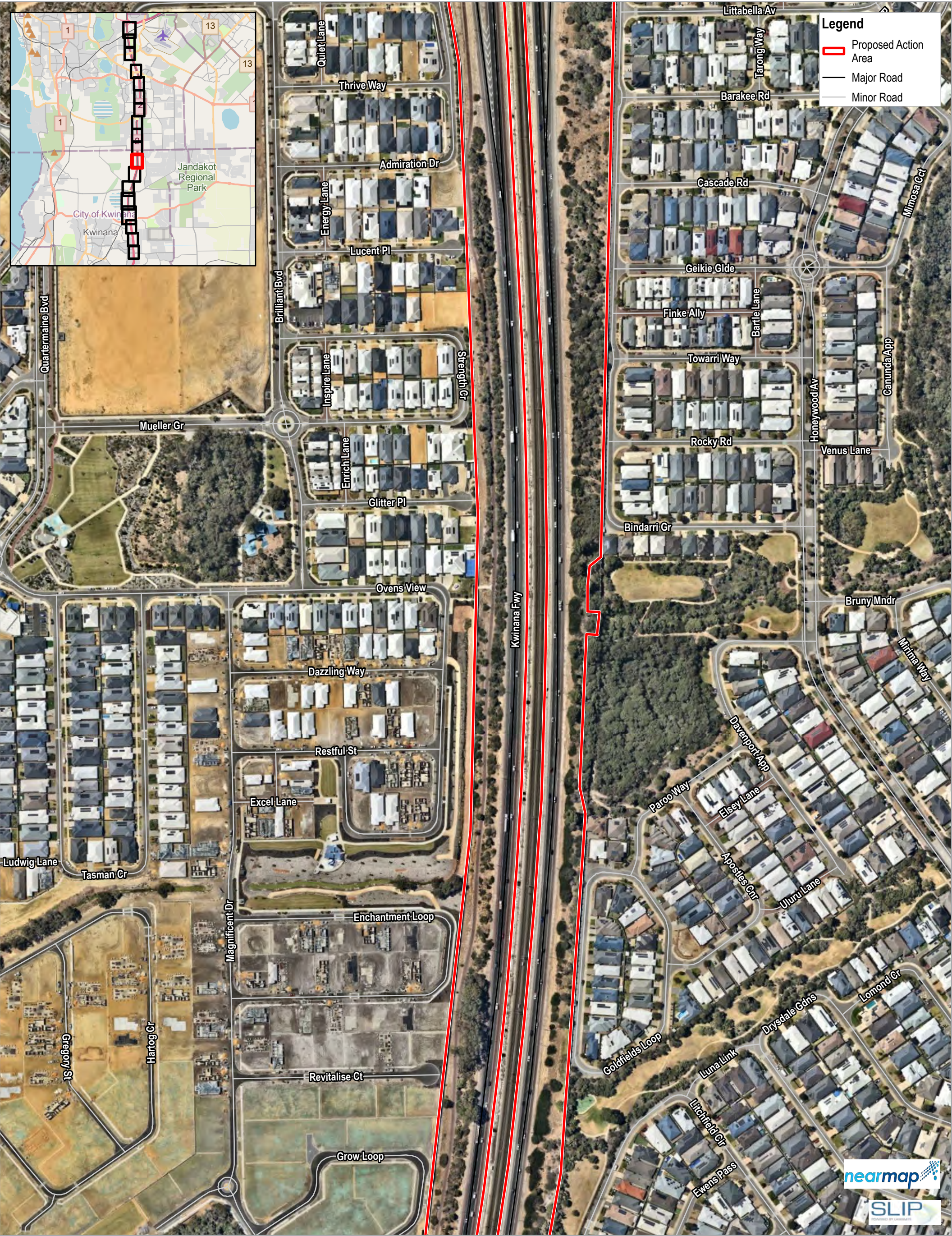
Tuart Woodlands and Forests of the
Swan Coastal Plain TEC Patches

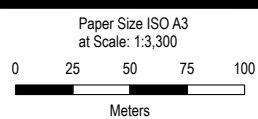
Project No. 12657323
Revision No. 0
Date 9/03/2026

FIGURE 1.8

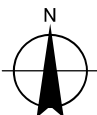








Map Projection: Transverse Mercator
Horizontal Datum: GDA2020
Grid: GDA2020 MGA Zone 50

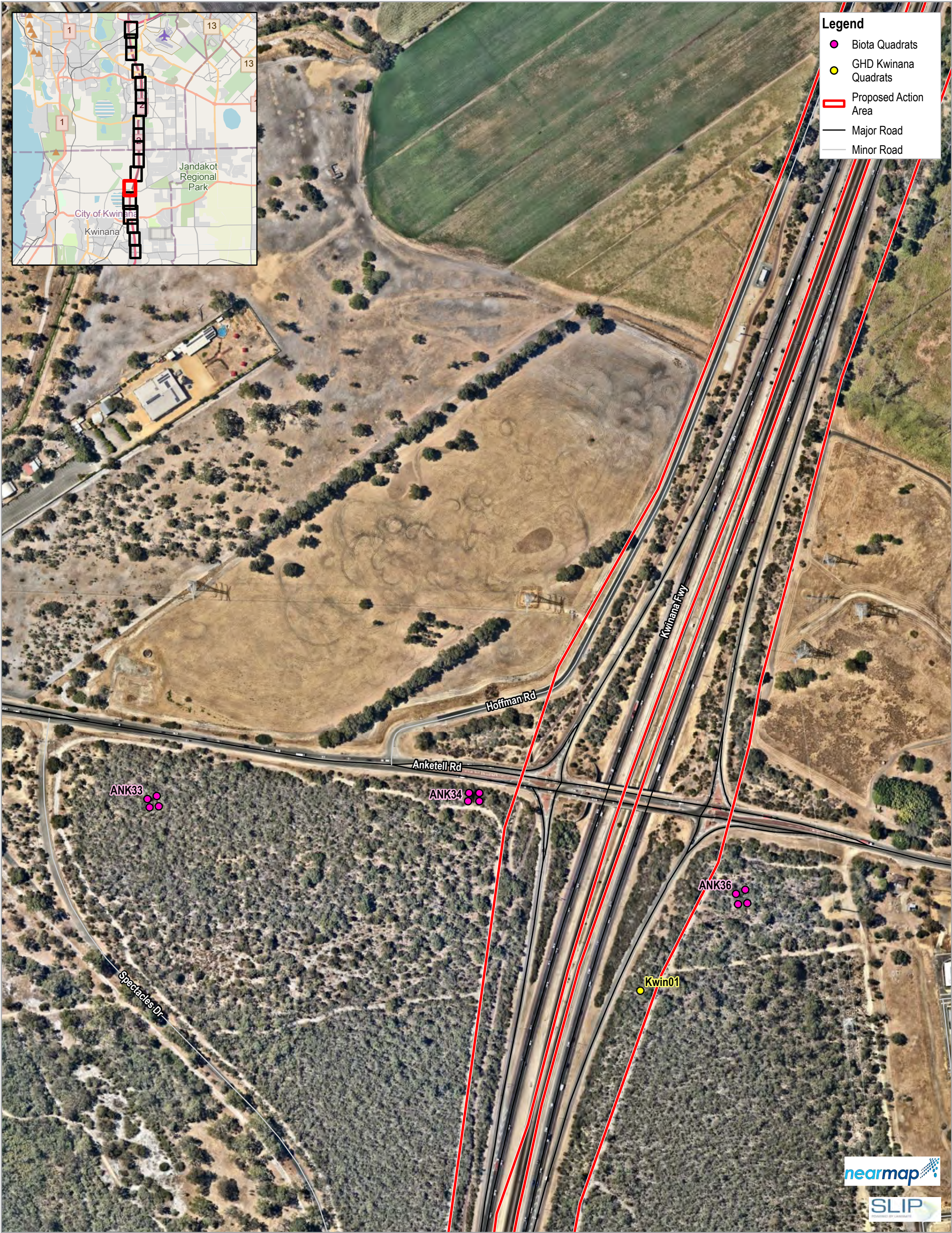


Main Roads WA
Kwinana Freeway Upgrade (Roe
Highway to Mortimer Road),
Habitat Quality Scoring

**Tuart Woodlands and Forests of the
Swan Coastal Plain TEC Patches**

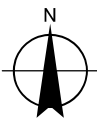
Project No. 12657323
Revision No. 0
Date 9/03/2026

FIGURE 1.12



Paper Size ISO A3
at Scale: 1:3,300
0 25 50 75 100
Meters

Map Projection: Transverse Mercator
Horizontal Datum: GDA2020
Grid: GDA2020 MGA Zone 50

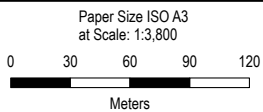
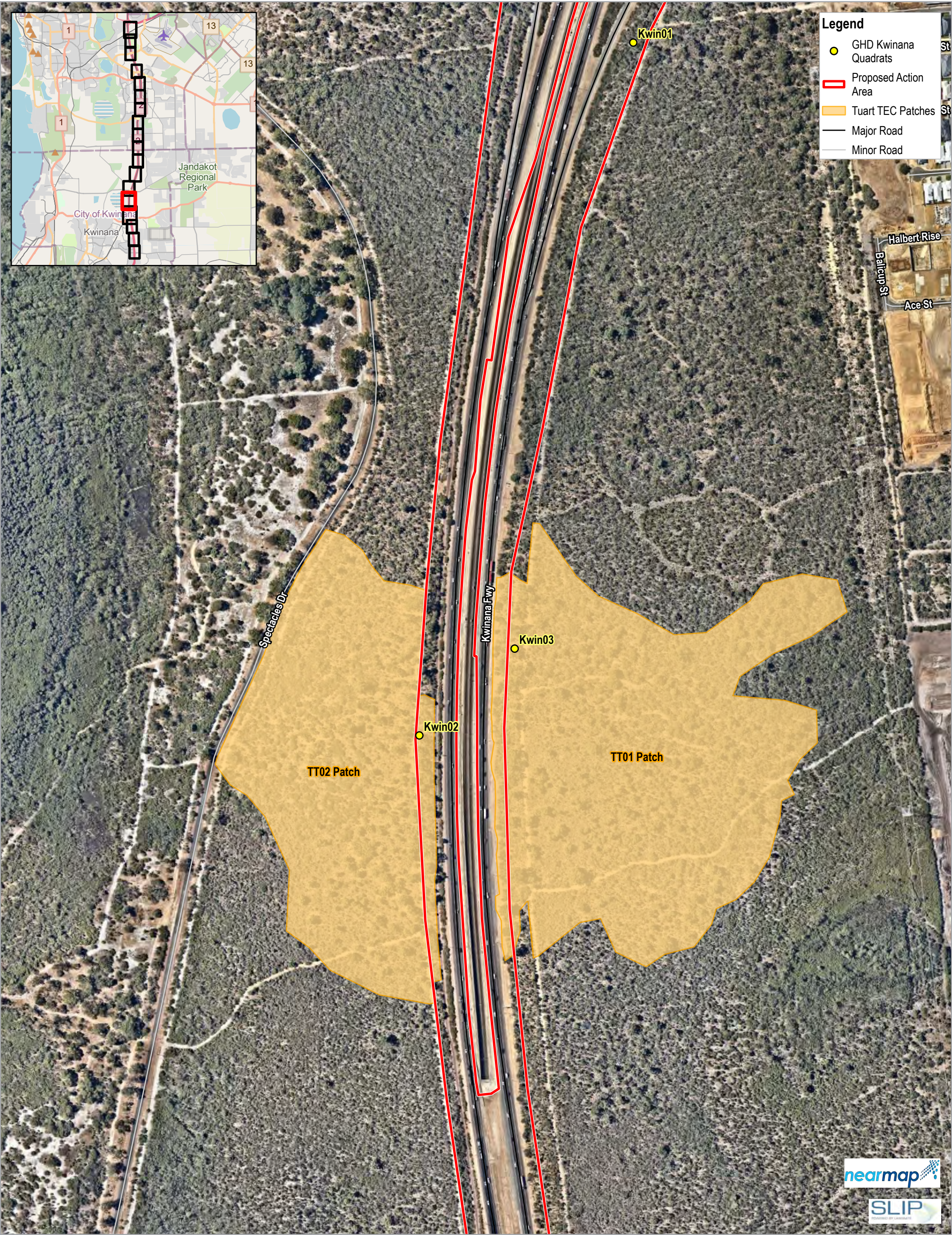


Main Roads WA
Kwinana Freeway Upgrade (Roe
Highway to Mortimer Road),
Habitat Quality Scoring

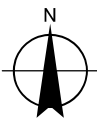
Tuart Woodlands and Forests of the
Swan Coastal Plain TEC Patches

Project No. 12657323
Revision No. 0
Date 9/03/2026

FIGURE 1.13



Map Projection: Transverse Mercator
Horizontal Datum: GDA2020
Grid: GDA2020 MGA Zone 50

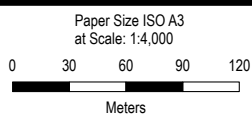
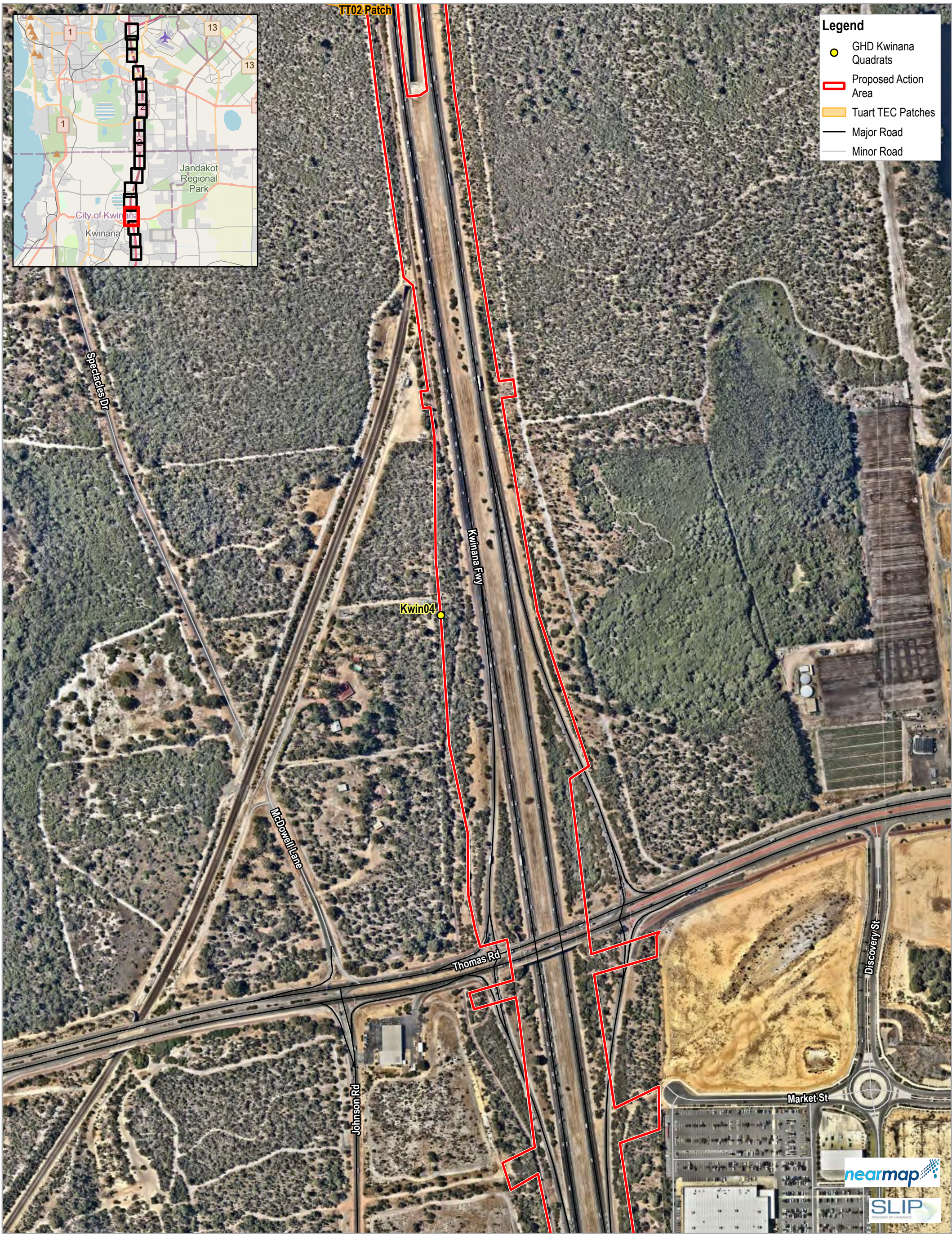


Main Roads WA
Kwinana Freeway Upgrade (Roe
Highway to Mortimer Road),
Habitat Quality Scoring

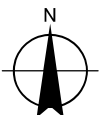
**Tuart Woodlands and Forests of the
Swan Coastal Plain TEC Patches**

Project No. 12657323
Revision No. 0
Date 9/03/2026

FIGURE 1.14



Map Projection: Transverse Mercator
Horizontal Datum: GDA2020
Grid: GDA2020 MGA Zone 50

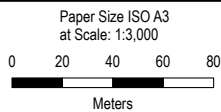
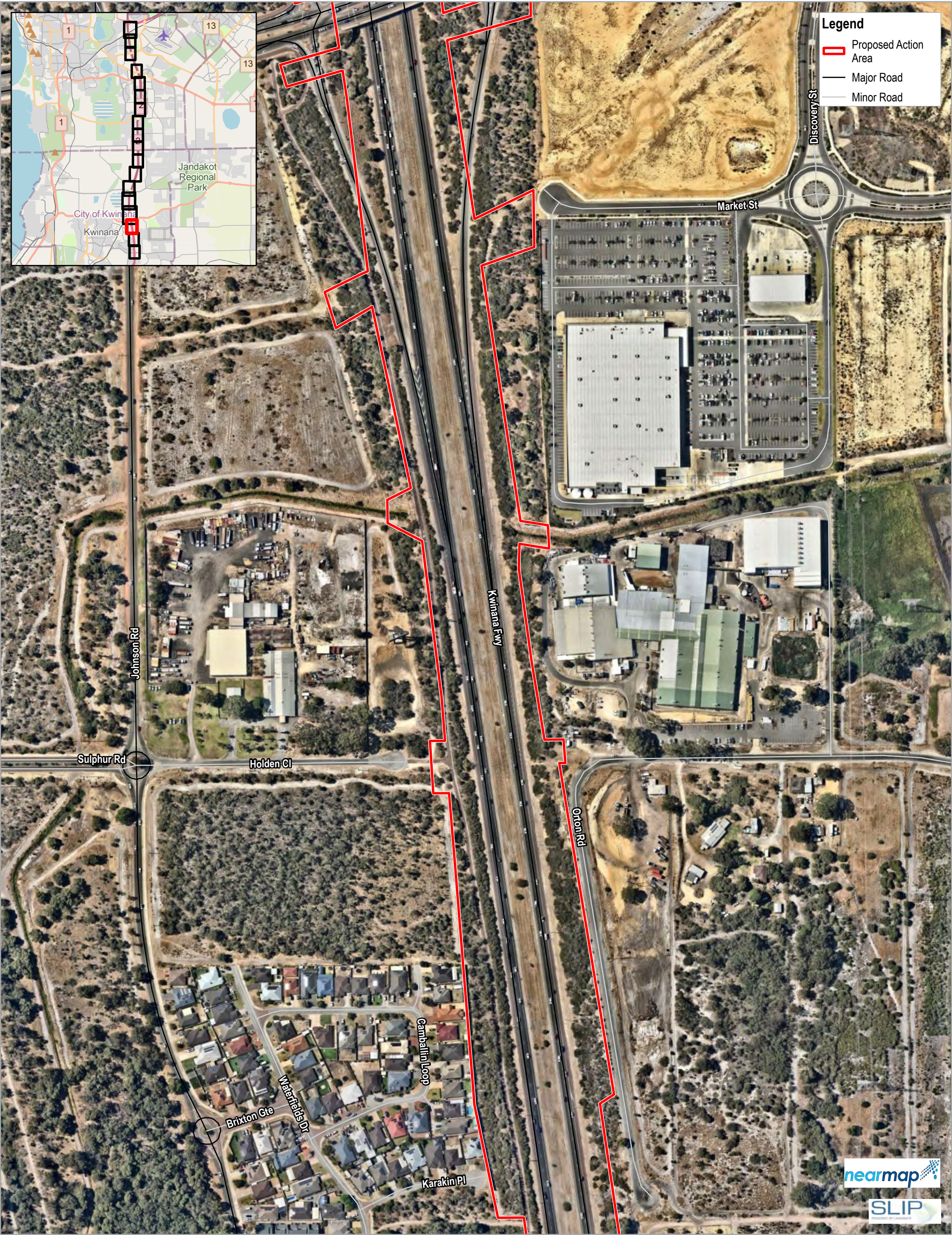


Main Roads WA
Kwinana Freeway Upgrade (Roe
Highway to Mortimer Road),
Habitat Quality Scoring

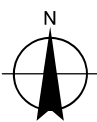
**Tuart Woodlands and Forests of the
Swan Coastal Plain TEC Patches**

Project No. 12657323
Revision No. 0
Date 9/03/2026

FIGURE 1.15



Map Projection: Transverse Mercator
Horizontal Datum: GDA2020
Grid: GDA2020 MGA Zone 50

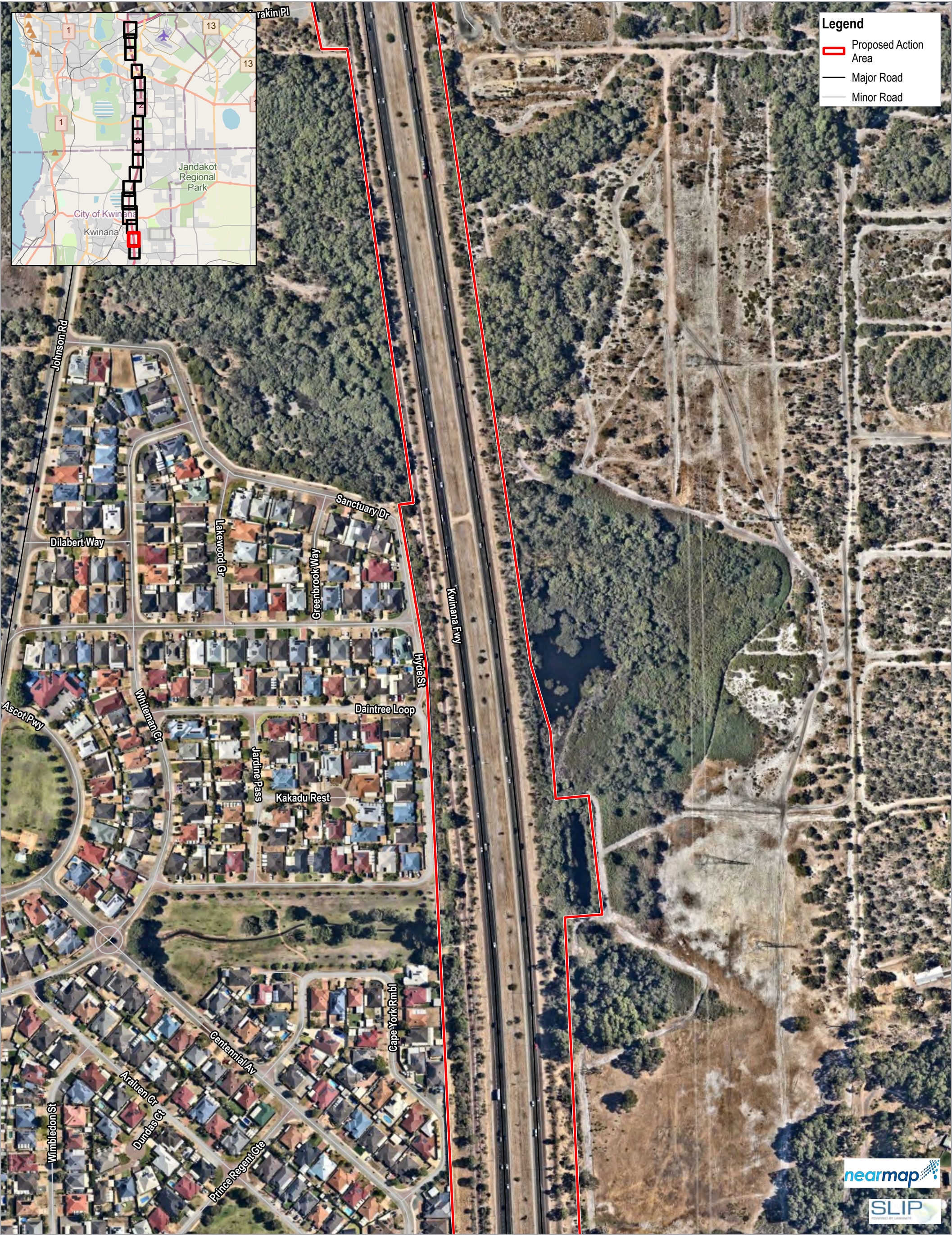


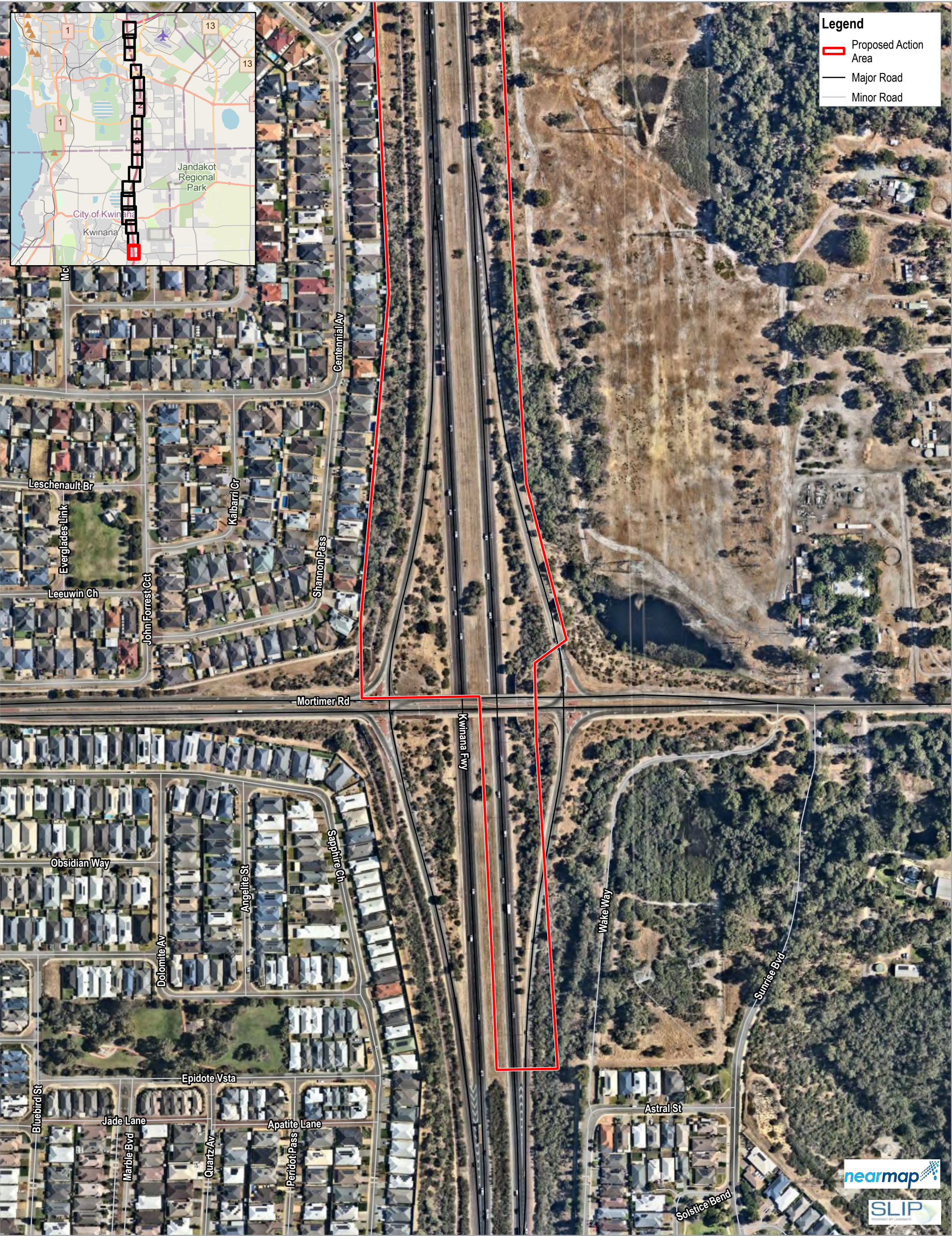
Main Roads WA
Kwinana Freeway Upgrade (Roe
Highway to Mortimer Road),
Habitat Quality Scoring

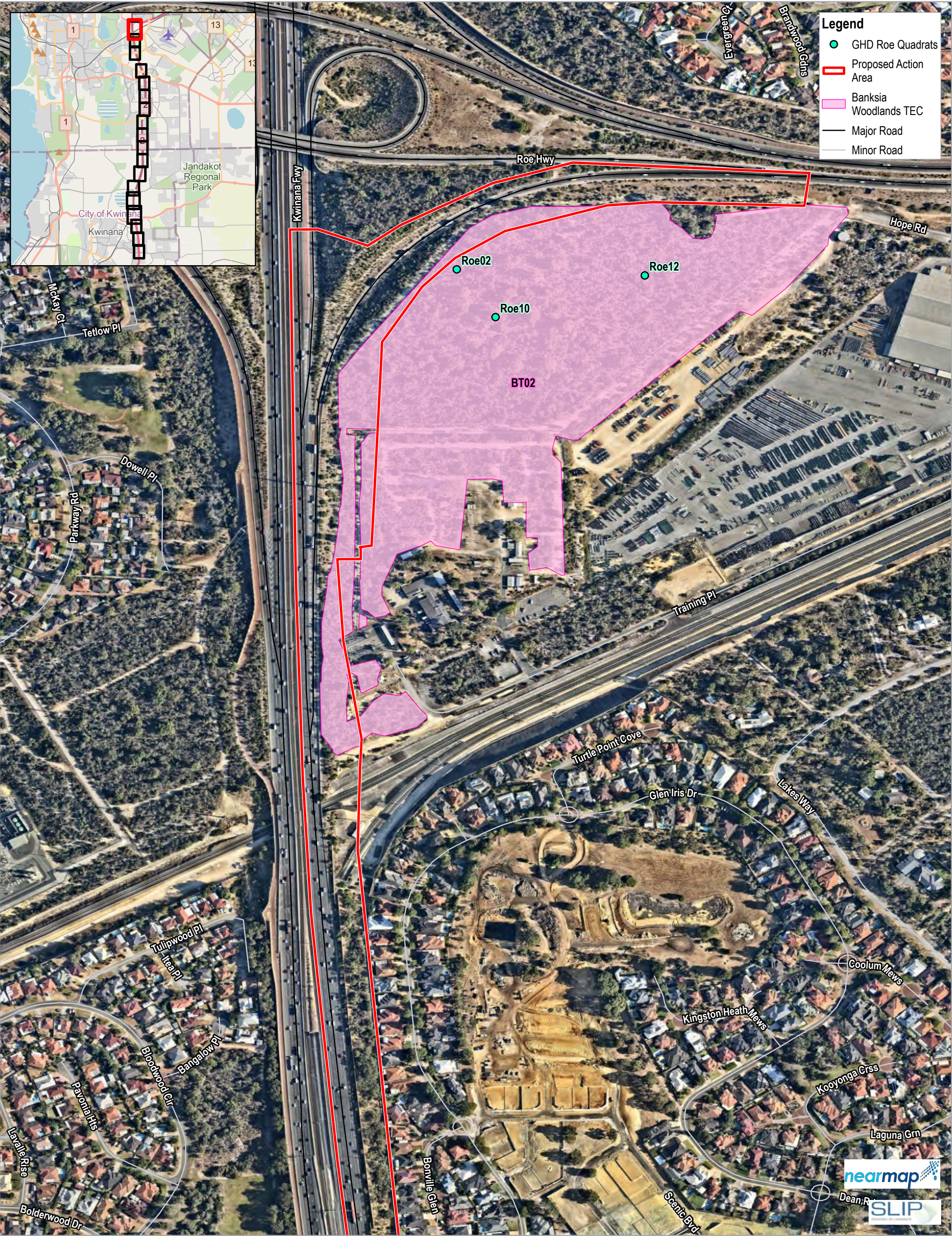
Tuart Woodlands and Forests of the
Swan Coastal Plain TEC Patches

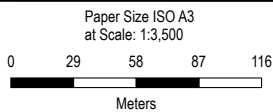
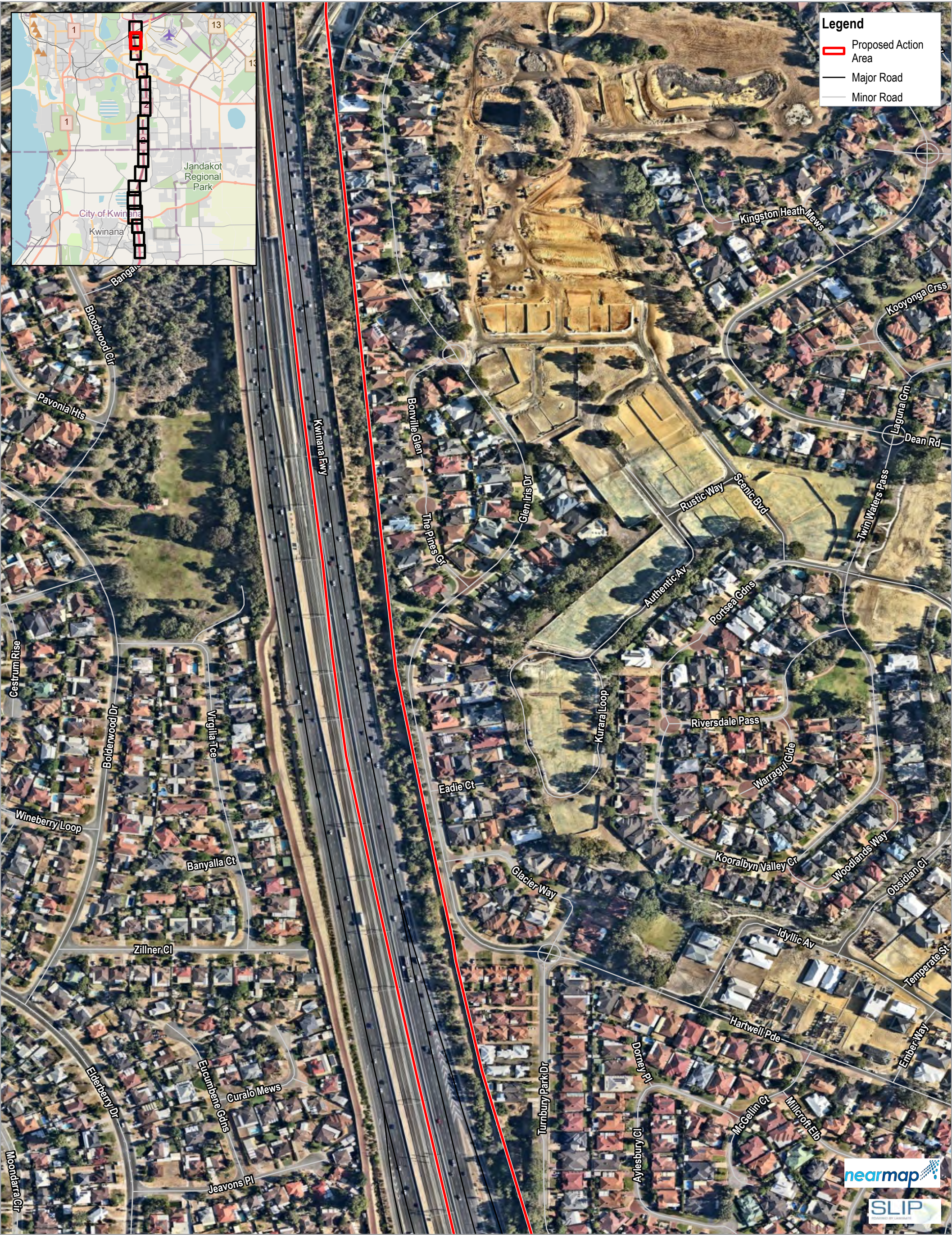
Project No. 12657323
Revision No. 0
Date 9/03/2026

FIGURE 1.16









Main Roads WA
Kwinana Freeway Upgrade (Roe
Highway to Mortimer Road),
Habitat Quality Scoring

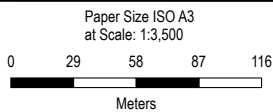
**Banksia Woodlands of the Swan
Coastal Plain TEC Patches**

Project No. 12657323
Revision No. 0
Date 9/03/2026

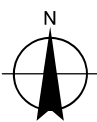
FIGURE 2.2







Horizontal Datum: GDA2020
Grid: GDA2020

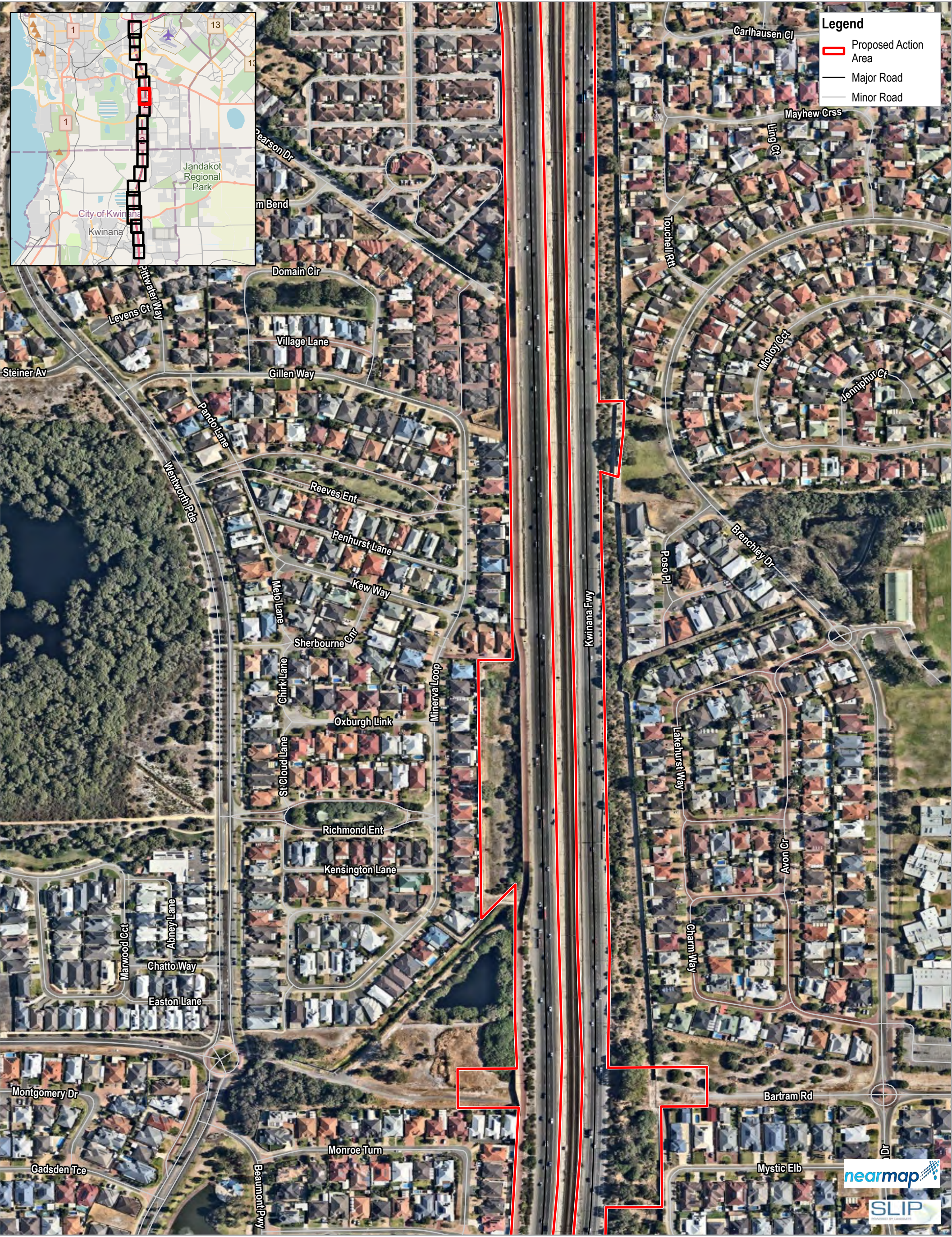


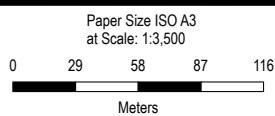
Main Roads WA
Kwinana Freeway Upgrade (Roe
Highway to Mortimer Road),
Habitat Quality Scoring

**Banksia Woodlands of the Swan
Coastal Plain TEC Patches**

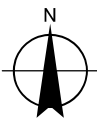
Project No. 12657323
Revision No. 0
Date 9/03/2026

FIGURE 2.5





Horizontal Datum: GDA2020
Grid: GDA2020

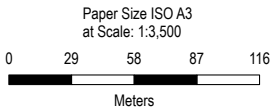
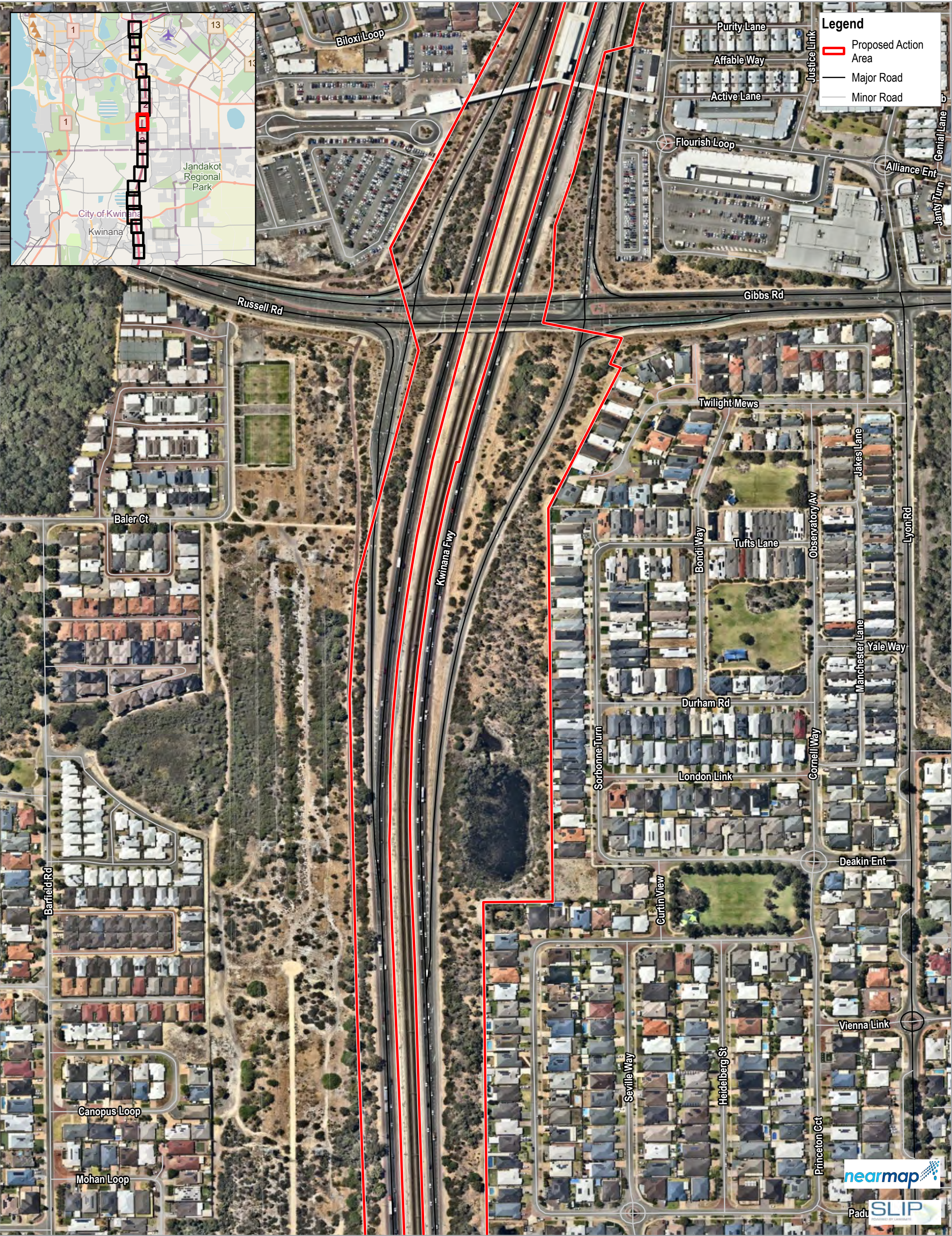


Main Roads WA
Kwinana Freeway Upgrade (Roe
Highway to Mortimer Road),
Habitat Quality Scoring

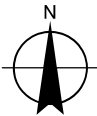
**Banksia Woodlands of the Swan
Coastal Plain TEC Patches**

Project No. 12657323
Revision No. 0
Date 9/03/2026

FIGURE 2.7



Horizontal Datum: GDA2020
Grid: GDA2020

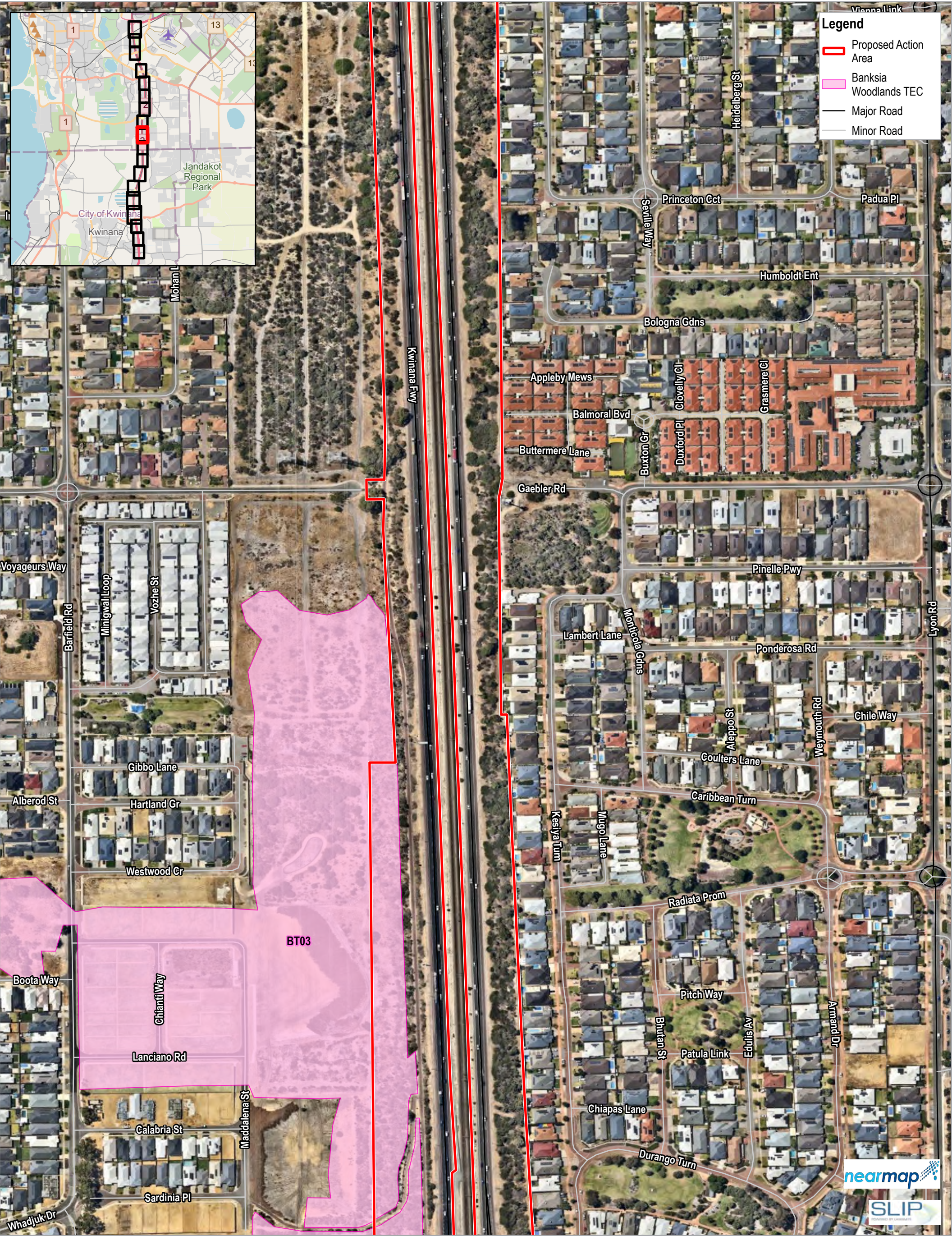


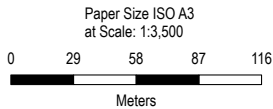
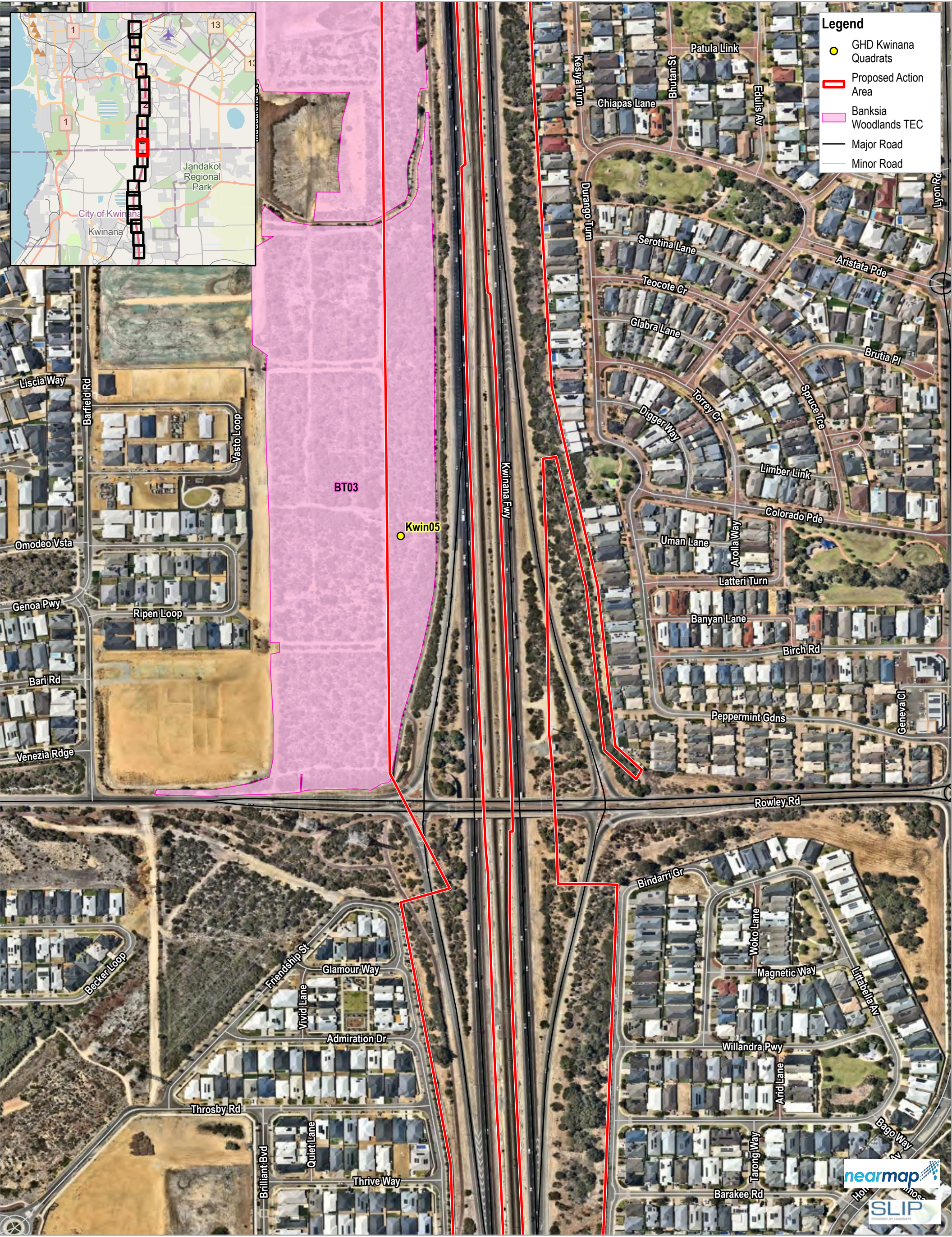
Main Roads WA
Kwinana Freeway Upgrade (Roe
Highway to Mortimer Road),
Habitat Quality Scoring

**Banksia Woodlands of the Swan
Coastal Plain TEC Patches**

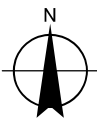
Project No. 12657323
Revision No. 0
Date 9/03/2026

FIGURE 2.8





Horizontal Datum: GDA2020
Grid: GDA2020

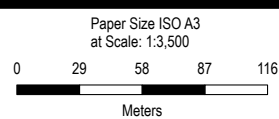
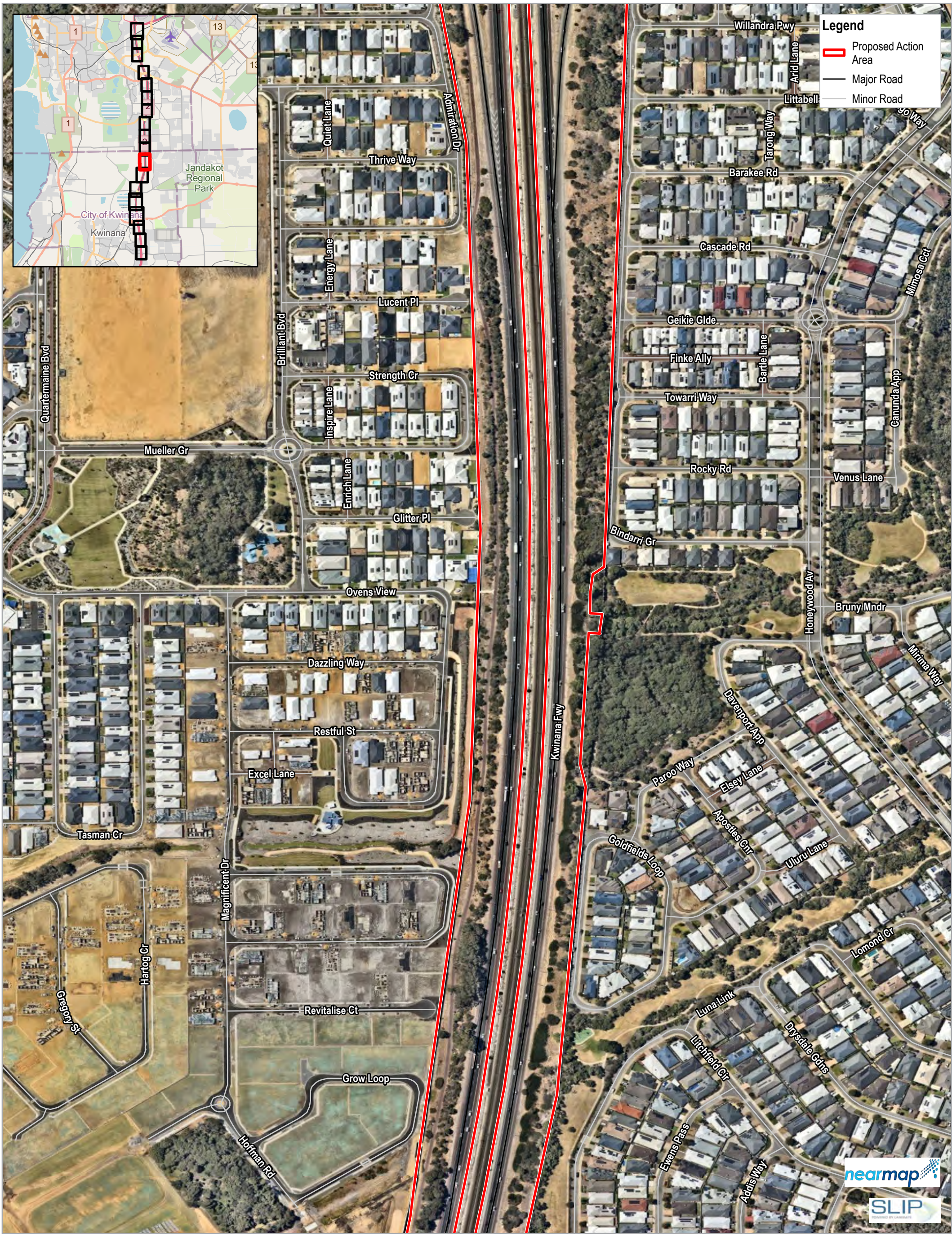


Main Roads WA
Kwinana Freeway Upgrade (Roe
Highway to Mortimer Road),
Habitat Quality Scoring

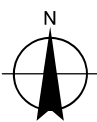
**Banksia Woodlands of the Swan
Coastal Plain TEC Patches**

Project No. 12657323
Revision No. 0
Date 9/03/2026

FIGURE 2.10



Horizontal Datum: GDA2020
Grid: GDA2020

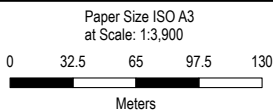
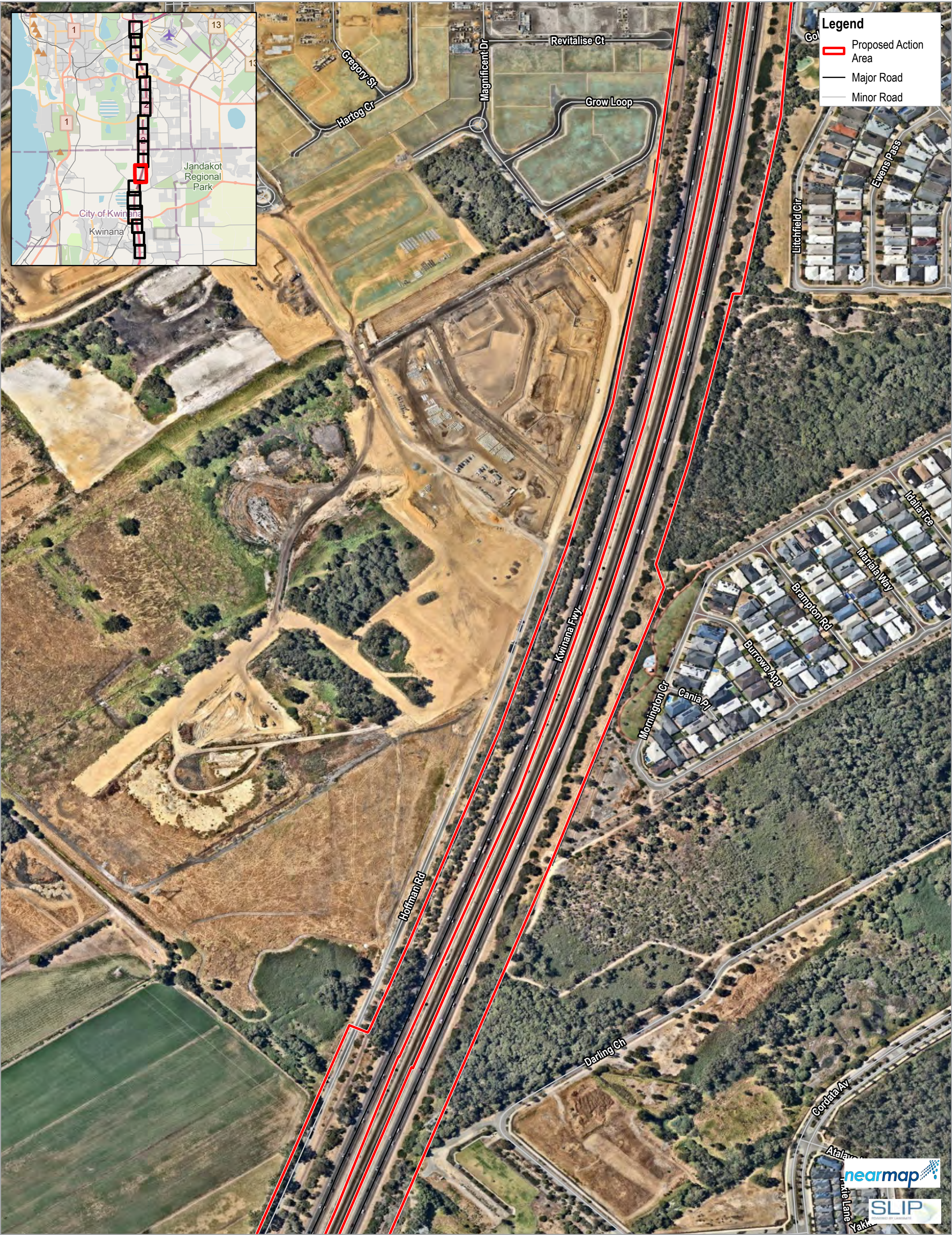


Main Roads WA
Kwinana Freeway Upgrade (Roe
Highway to Mortimer Road),
Habitat Quality Scoring

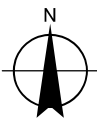
**Banksia Woodlands of the Swan
Coastal Plain TEC Patches**

Project No. 12657323
Revision No. 0
Date 9/03/2026

FIGURE 2.11



Horizontal Datum: GDA2020
Grid: GDA2020

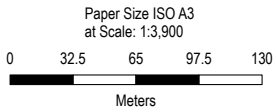
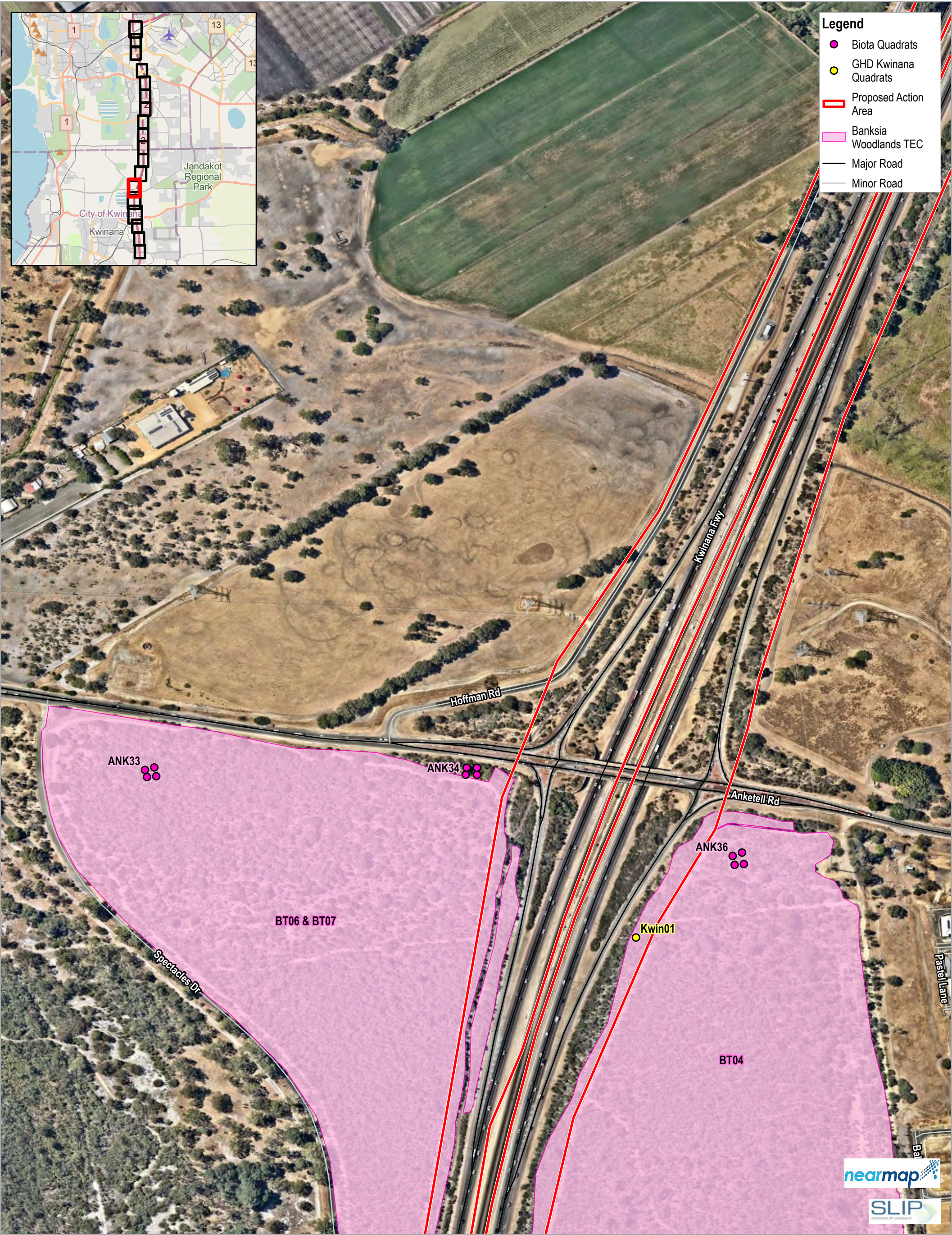


Main Roads WA
Kwinana Freeway Upgrade (Roe
Highway to Mortimer Road),
Habitat Quality Scoring

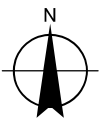
**Banksia Woodlands of the Swan
Coastal Plain TEC Patches**

Project No. 12657323
Revision No. 0
Date 9/03/2026

FIGURE 2.12



Horizontal Datum: GDA2020
Grid: GDA2020

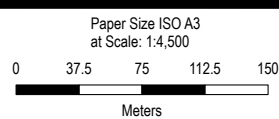
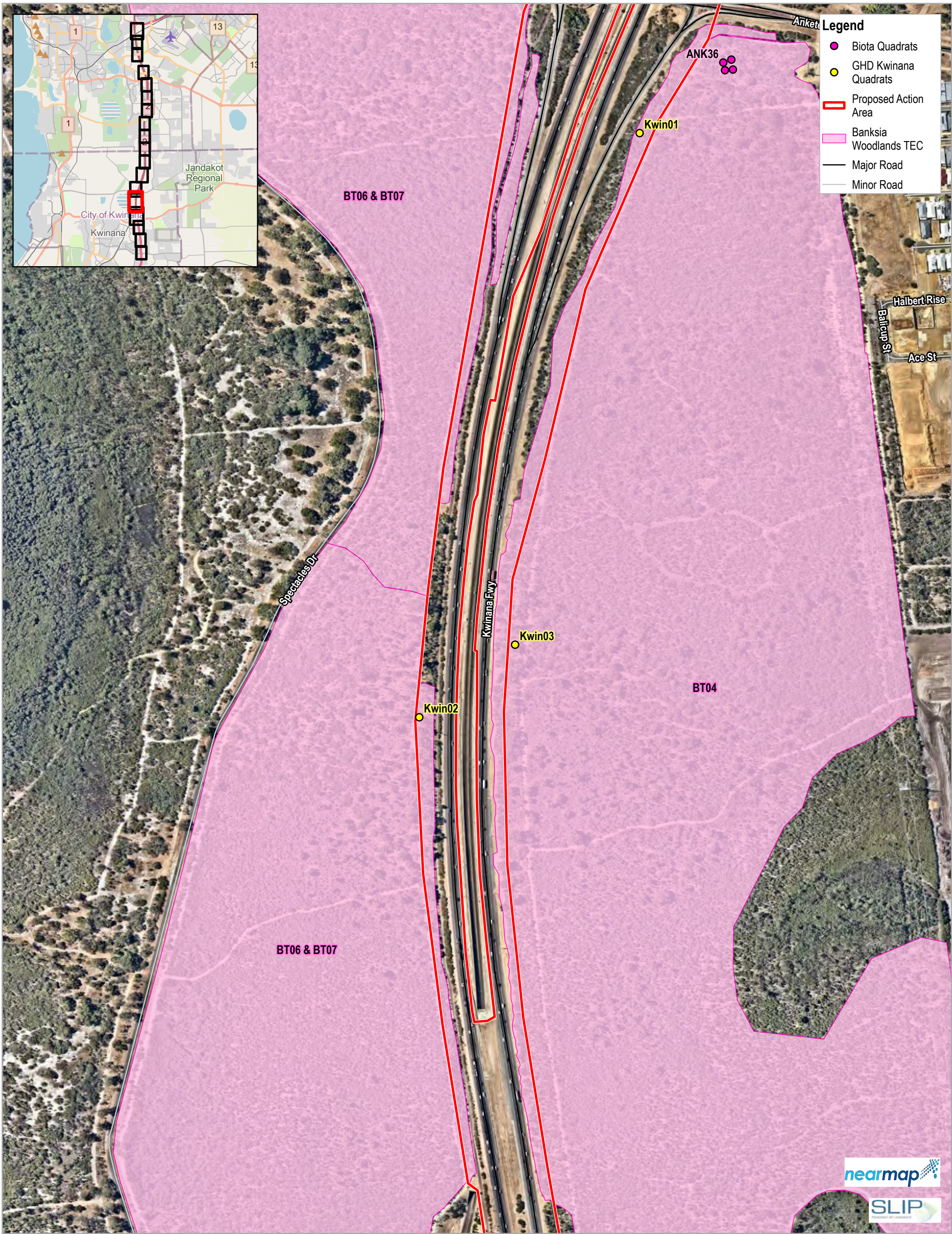


Main Roads WA
Kwinana Freeway Upgrade (Roe
Highway to Mortimer Road),
Habitat Quality Scoring

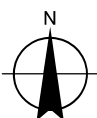
**Banksia Woodlands of the Swan
Coastal Plain TEC Patches**

Project No. 12657323
Revision No. 0
Date 9/03/2026

FIGURE 2.13



Horizontal Datum: GDA2020
Grid: GDA2020

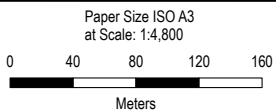
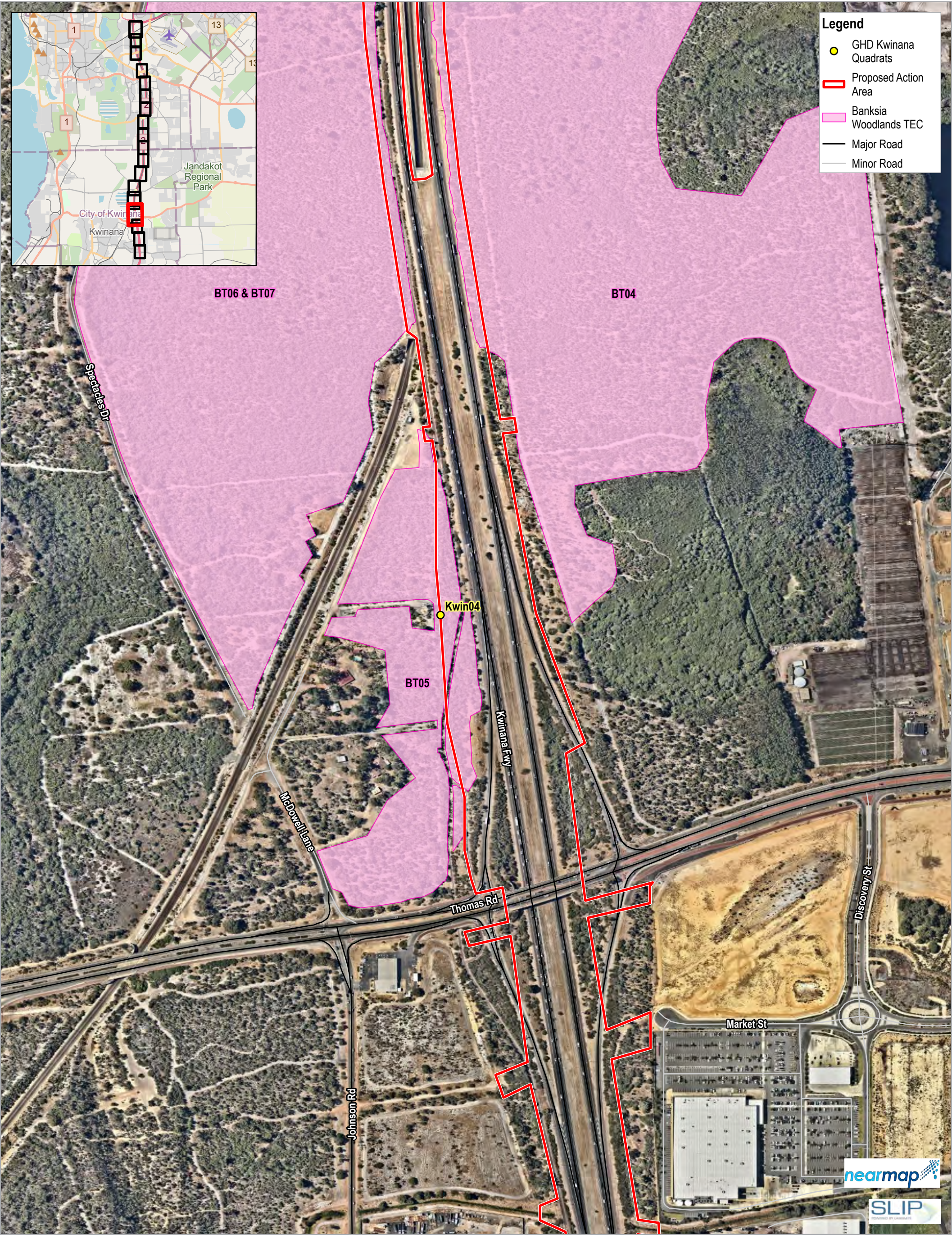


Main Roads WA
Kwinana Freeway Upgrade (Roe
Highway to Mortimer Road),
Habitat Quality Scoring

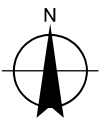
**Banksia Woodlands of the Swan
Coastal Plain TEC Patches**

Project No. 12657323
Revision No. 0
Date 9/03/2026

FIGURE 2.14



Horizontal Datum: GDA2020
Grid: GDA2020

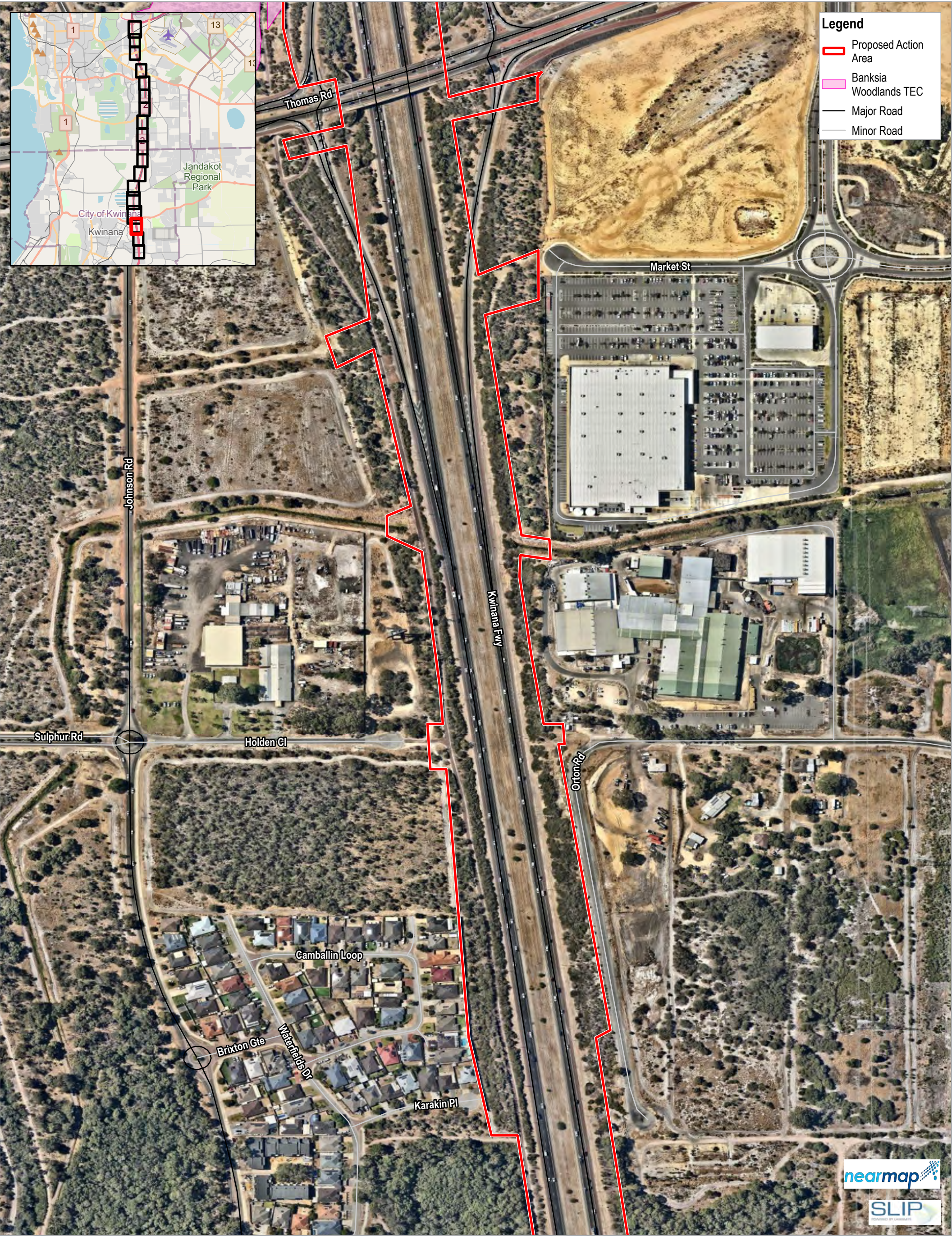


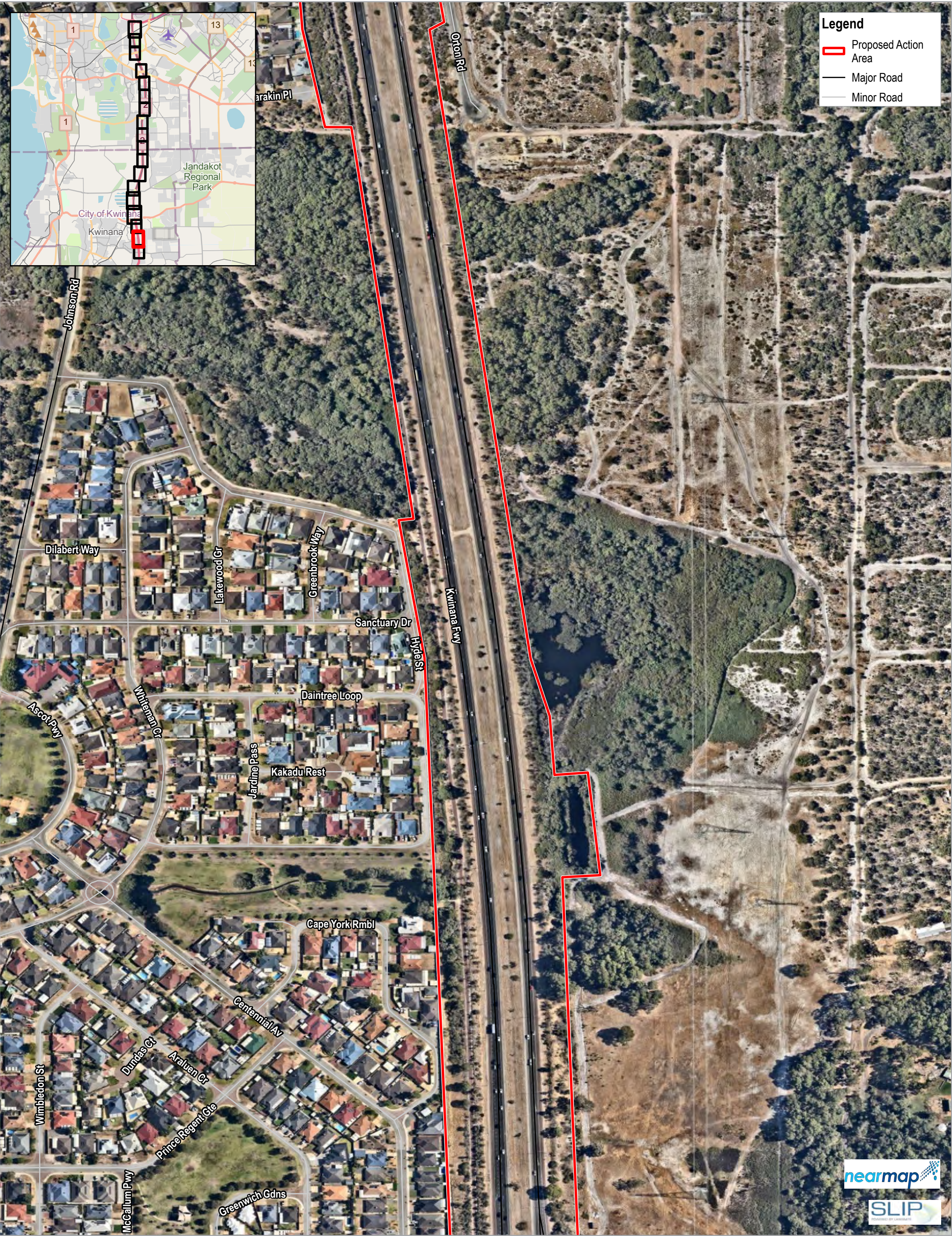
Main Roads WA
Kwinana Freeway Upgrade (Roe
Highway to Mortimer Road),
Habitat Quality Scoring

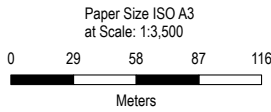
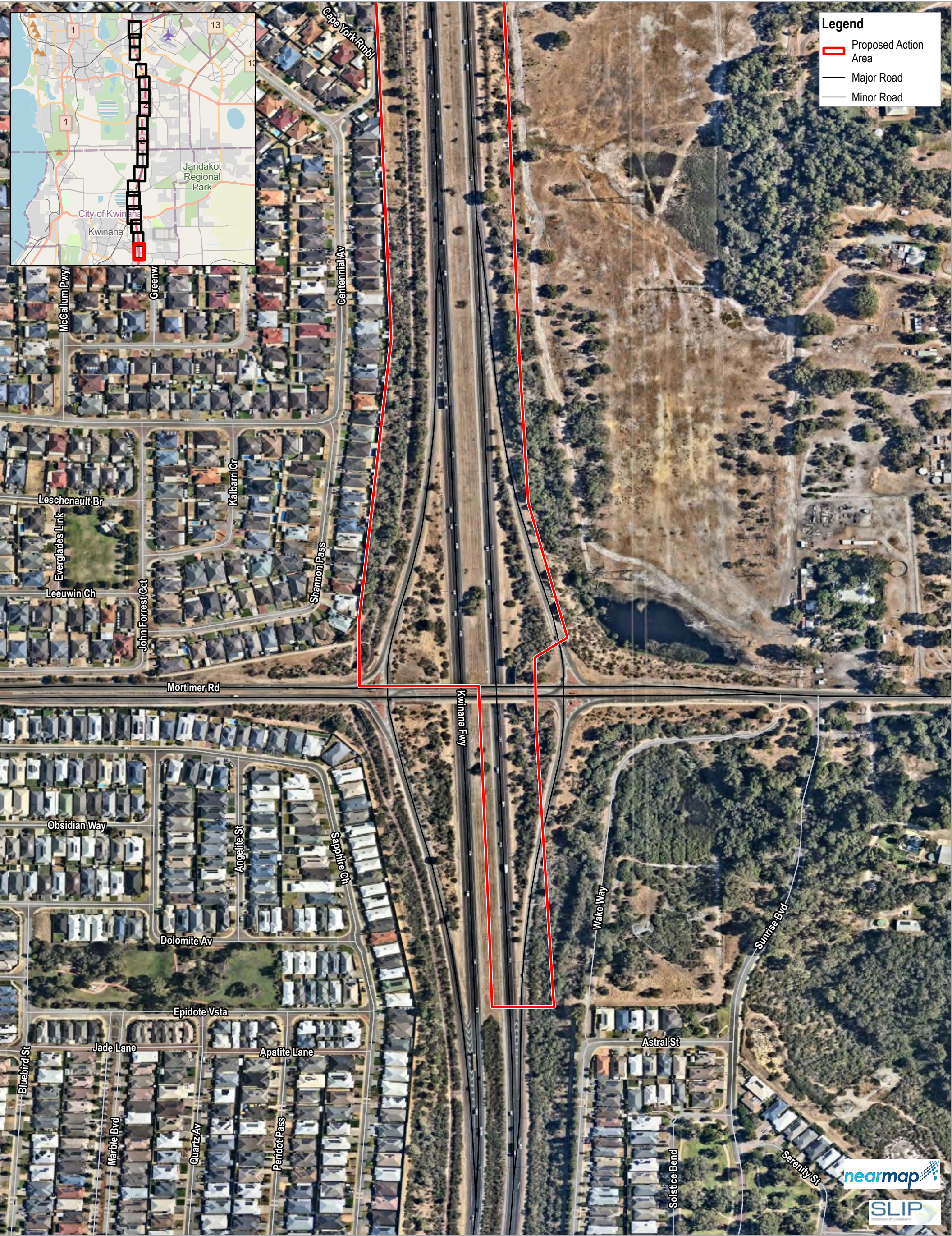
**Banksia Woodlands of the Swan
Coastal Plain TEC Patches**

Project No. 12657323
Revision No. 0
Date 9/03/2026

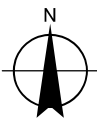
FIGURE 2.15







Horizontal Datum: GDA2020
Grid: GDA2020



Main Roads WA
Kwinana Freeway Upgrade (Roe
Highway to Mortimer Road),
Habitat Quality Scoring

**Banksia Woodlands of the Swan
Coastal Plain TEC Patches**

Project No. 12657323
Revision No. 0
Date 9/03/2026

FIGURE 2.18

