Land and Environment Court

New South Wales

Case Name:	Kingshill Development No 1 Pty Ltd and Kingshill No 2 Pty Ltd v Port Stephens Council and Hunter and Central Coast Regional Planning Panel
Medium Neutral Citation:	[2023] NSWLEC 1478
Hearing Date(s):	20 February to 2 March 2023, 10 March 2023, 14 to 17 March 2023, 27 to 28 March 2023
Date of Orders:	23 August 2023
Decision Date:	23 August 2023
Jurisdiction:	Class 1
Before:	Bish C
Decision:	The Court orders: (1) Leave is granted to rely on amended plans and documents that amend Development Application 16-2018-772-1, as described in Exhibits P, Q and R, and parts of Exhibits A, B and D. (2) The appeal is dismissed. (3) Development Application 16-2018-772-1, relating to a concept proposal to define areas for residential precincts and conservation, and Stage 1 works to establish a conservation area and clear precinct areas for future development, on Lot 41 Deposited Plan 1037411, also known as 3221 Pacific Highway, Kings Hill, and Lot 4821 Deposited Plan 852073, also known as 35 Six Mile Road, Kings Hill is refused. (4) The exhibits are retained.
Catchwords:	DEVELOPMENT APPLICATION – staged development with concept proposal and first stage works – concept plan – establish a conservation area and future development footprint – assessed potential ecological and hydrological impact – threatened species impact

	assessment – insufficient satisfactory arrangements for designated State public infrastructure
Legislation Cited:	Biodiversity Conservation Act 2016, Sch 9 Biodiversity Conservation (Savings and Transition) Regulation 2017, Pt 7, cll 27, 28, 31 Environmental Planning and Assessment Act 1979, ss 4.5, 4.14, 4.15, 4.16, 4.22, 4.47, 5A, 5.16, 6.2, 8.7, 8.15, 78A, 79B, Pt 5 Environmental Planning and Assessment Regulation 2000, cll 49, 55 Fisheries Management Act 1994 Hunter Water Act 1991, s 51 Land and Environment Court Act 1979, s 39 Port Stephens Local Environmental Plan 2000, cll 9, 12, 13 Port Stephens Local Environmental Plan 2013, cll 2.3, 4.1, 5.10, 5.21, 6.1, 6.2, 6.3, 6.5, 6.6, 7.1, 7.2, 7.4, 7.6, 7.8, 7.9, 7.11 Rural Fires Act 1997, s100B State Environmental Planning Policy (Biodiversity and Conservation) 2021, ss 3.6, 3.7, 3.8, 3.9, 3.15 State Environmental Planning Policy (Planning Systems) 2021, s 20, Sch 6 s 2 State Environmental Planning Policy (Resilience and Hazards) 2021, ss 2.7, 2.8, 2.10, 2.11, 4.6 State Environmental Planning Policy (Transport and infrastructure) 2021, ss 2.119, 2.120 Threatened Species Conservation Act 1995, ss 109, 110, 111, 112, Schs 1, 2, 3 Water Management Act 2000, s 91
Cases Cited:	Mison v Randwick Municipal Council (1991) 23 NSWLR 734 Mullaley Gas and Pipeline Accord Inc v Santos NSW (Eastern) Pty Ltd (2021) 252 LGERA 221; [2021] NSWLEC 110 Ryan v Northern Regional Planning Panel (no 4) [2020] NSWLEC 55 The Uniting Church in Australia Property Trust (NSW) v Parramatta City Council [2018] NSWLEC 158 Toga Penrith Developments Pty Limited v Penrith City Council [2022] NSWLEC 117

Texts Cited:	Land and Environment Court Practice Note – Class 1 Development Appeals NSW Department of Primary Industries, Threatened species assessment guidelines, February 2008 NSW Rural Fire Services, Planning for Bushfire Protection, November 2019 Port Stephens Communication and Engagement Strategy 2022 to 2027 Port Stephens Council Comprehensive Koala Plan of Management 2002 Port Stephens Development Control Plan 2014 Sydney Catchment Authority, Neutral or Beneficial Effect on Water Quality Assessment Guideline, January 2011
Category:	Principal judgment
Parties:	Kingshill Development No 1 Pty Ltd (First Applicant) Kingshill No 2 Pty Ltd (Second Applicant) Port Stephens Council (First Respondent) Hunter and Central Coast Regional Planning Panel (Second Respondent)
Representation:	Counsel: T F Robertson SC with T To (First and Second Applicants) M Caban (Solicitor) (First Respondent) J Reid with L Nurpuri (Second Respondent) Solicitors: Colin Biggers & Paisley (First and Second Applicants) Local Government Legal (First Respondent) Department of Planning and Environment (Second Respondent)
File Number(s):	2021/354079
Publication Restriction:	No

JUDGMENT

1 **COMMISSIONER:** This is an appeal against the refusal of (Concept) Development Application 16-2018-772-1 (the application) by Hunter and Central Coast Regional Planning Panel (the Panel), relating to a concept proposal to define areas for residential development (precincts) and

conservation, and Stage 1 works to establish the conservation area and clear the precinct areas to create the development footprint. The proposed development is located on Lot 41 Deposited Plan (DP) 1037411 (the southern lot), also known as 3221 Pacific Highway, Kings Hill and Lot 4821 DP 852073 (the northern lot), also known as 35 Six Mile Road, Kings Hill (which together are known as the 'site').

2 For the reasons explained below, I am not satisfied that the application, as amended, addresses the relevant jurisdictional and merit assessment requirements for the Court to determine to grant consent.

Background to application and overview of proceedings

3 The site forms part of the Kings Hill Urban Release Area (KHURA), which was rezoned for residential and other purposes in 2010 by the Port Stephens Council (the Council). The rezoning of the KHURA has resulted in the creation of several planning zones that relate to residential, retail and commercial development, and for conservation.

4 The site forms a significant portion of the KHURA, making up to 94% of its total area, and is essentially a 'greenfield site' with respect to residential subdivision and urban development. It is understood that the rezoning of the site to form the KHURA was informed by numerous studies and assessments commissioned by the Council, some of which are provided in evidence.

5 Also in evidence, is a letter submitted to Council on 18 May 2010 by the Department of Climate Change and Water (DECCW) who advise that it would have been preferable to address all matters of (particularly ecological) significance prior to the rezoning of the KHURA. This would have achieved an 'improved/maintained outcome', that would streamline and simplify future development applications. It was the opinion of the DECCW however that this preferred strategic planning outcome was not delivered at the rezoning stage of the KHURA, and therefore must be addressed in subsequent future development applications.

6 On the 27 July 2018, the proposal for development of the site was referred to the Chief Executive of the Office of Environment and Heritage (OEH), seeking the Chief Executive's Requirements (CER's) for a Species Impact Statement

(SIS) to assist in preparation of the application. On 9 September 2018, the OEH issued the CER's relevant to the proposal and site, which were adopted in the preparation of the application.

7 The application was submitted to Council on 23 November 2018, pursuant to s 4.22(1) of the *Environmental Planning and Assessment Act 1979* (EPA Act). After submission of the original application to Council, and prior to refusal, the application was amended by the applicants, as agreed by the respondents, pursuant to cl 55 of the Environmental Planning and Assessment Act 2000 (EPA Reg).

8 In addition to being internally reviewed by Council and the Panel, the application was notified to residents for their consideration, consistent with the Port Stephens Communication and Engagement Strategy 2022 to 2027, and the Port Stephens Development Control Plan 2014.

9 The application (original and amended) was referred to relevant authorities, pursuant to s 4.47 of the EPA Act, including: OEH; NSW Rural Fire Service (RFS); NSW Department of Primary Industries (DPI); the Natural Resources Access Regulator (NRAR); Ausgrid; Hunter Water Corporation (HWC); and Transport for NSW (TfNSW).

10 Further to these referrals, on 9 November 2021, the application was referred to the Coordinator-General of the Environment, Energy and Science Group of the Department of Planning, Industry and Environment (DPIE), pursuant to (former) s 79B(3) of the EPA Act. The DPIE, through the renamed Biodiversity and Conservation Division, wrote to the applicants on 8 December 2021 and refused to grant concurrence to the application, with reasons outlined in documents tendered in Exhibit 5. A review of this decision was sought by the applicants, which after consideration, DPIE reaffirmed their position to refuse concurrence on 21 December 2022.

11 The development is declared as regionally significant, pursuant to s 4.5(b) of the EPA Act, with the Panel being the relevant consent authority. Despite the Council's advice to the Panel recommending approval of the application with conditions, consistent with an assessment report, dated 14 December 2020, after seeking additional information and advice from relevant concurrence

authorities, the Panel ultimately refused to grant consent to the application in a determination dated 4 February 2022.

12 The applicants appealed against the refusal of the application, pursuant to s 8.7(1) of the EPA Act.

13 The hearing of the appeal commenced by request of the parties in Court, and after opening submissions of the parties and oral submission of residents/interest groups, the hearing proceeded to a site view, then returned back to Court for expert evidence and further submissions of Counsel.

Notice of Motion's seeking to amend the application

14 Prior to the hearing, the Court granted leave to the applicants Notice of Motion (NoM) seeking to amend the application on 26 October 2022, by agreement of the respondents, and pursuant to cl 55 of the EPA Reg. The relevant amendments to the application are described in Exhibit B.

15 The applicants also filed with the Court, during the hearing, three separate (written) NoM's, and made an oral submission to further amend the application, to primarily correct errors in documents already filed, address issues raised in joint expert conference and clarify areas of uncertainty. Below, I provide my determination made in the hearing for each of the applicants' submissions seeking to amend the application.

16 The Land and Environment Court's Practice Note for Class 1 Development Appeals (the LEC Practice Note) guides the Court in assessing the reasonableness of an application to amend, as described at [12]. Paragraph [89] of the LEC Practice Note, explains that multiple requests to amend an application should be avoided, where possible. It is recognised that there is complexity in the application under appeal. An application to amend must be considered on its merits.

Notice of Motion dated 14 March 2023

17 This NoM sought to amend the application, as described in Exhibits XA and XB. In submission, Mr To agreed that the amendments sought were not 'minor', pursuant to s 8.15(3) of the EPA Act.

18 The Panel, by submission of Ms Reid (Exhibit X1), opposed the amendments as sought, due to the likely need to adjourn proceedings beyond the hearing dates already set down to allow their experts to review and for Council to undertake renotification of the amended application. This would result in a substantial delay in the proceedings, with additional hearing dates required. Further to this, the amendments were not as agreed by the experts or deemed to contribute to an improved understanding of the application.

19 The Council made no submission on the amendments sought.

20 The NoM was made on day 11 of the hearing, after the experts relating to stormwater engineering, ecological buffers, orchids, and wetland had completed their oral evidence, with the Phascogale and Koala expert oral evidence being part heard. These relevant experts would be required to review the amendments being sought.

21 After consideration of the submissions of the parties, I determined to refuse to grant leave to amend the application as sought in Exhibits XA and XB, for the reasons provided below.

22 The parties agreed that the changes described in Exhibits XA and XB, would require further joint expert conferencing and the recalling of relevant experts, including the stormwater engineers, some species experts, ecological buffer ecologists and traffic engineers. In addition, the amendments would require further referral to the RFS, pursuant to cl 55(3)(b) of the EPA Reg. The requirement to notify residents of the amended application, remained unresolved as Council had not had an opportunity to review the amendments being sought due to their late notice during the hearing.

23 Consistent with [92] of the LEC Practice Note, leave should not be granted to amendments of an application where it results in a substantial (delay) adjournment of the hearing.

24 The relevant expert evidence required to review the amendments when the NoM was filed was substantially complete in oral submission. There is substantiveness and complexity of the amendments sought, requiring multidisciplinary expert assessments, that would have resulted in a substantial

delay (adjournment) of the hearing and additional cost to the parties. The changes could not have been addressed appropriately by other means such as by conditions of consent.

25 I therefore determined that there was no reasonable basis to grant leave to the amendments sought that would facilitate the just, quick and cheap resolution of the proceedings.

Notice of Motion's dated 16 and 17 March

26 The NoM's filed on 16 March 2023 and 17 March 2023, provided in Exhibits XC and XD, respectively, and the oral submission made by Mr To, were heard together, although are determined separately below.

27 With regards to the amendments described in Exhibit XC and XD, the Panel, as submitted by Ms Reid, did not oppose these amendments as they are generally minor, correct grammatical and/or plan related errors, update references, and reflect the agreement of the experts. No further expert conferencing would be required to assess these amendments or cause delay to the proceedings. No costs were sought as the changes are deemed 'minor', pursuant to s 8.15(3) of the EPA Act.

28 In consideration of the submission of the parties and amendments sought, I granted leave to rely on the amended documents, which were tendered (after accepting further agreed track changes) as Exhibits P (amended Biodiversity Management Plan (BMP)), Q (amended Vegetation Management Plan (VMP)) and R (amended Biodiversity Management Strategy (BMS)).

29 The oral submission of Mr To related to further amendments to plans described in Exhibits XC and XD, to address errors and inconsistency. The Panel, in the submission of Ms Reid, did not oppose these amendments, as they improved the accuracy of documents before the Court in assessment of the application. The amendments were deemed minor, reflected the agreement of the experts and would not cause any delay to the proceedings. No costs were sought, pursuant to s 8.15(3) of the EPA Act.

30 After hearing the NoM and oral submissions, I granted leave to rely on the amendments sought to the application, as described in Exhibits XC and XD. The relevant plans replace the inaccurate plans in Exhibits A, B and D.

31 It was later identified that some of the amended documents tendered in Exhibits P, Q and R had inaccuracies, which were subsequently corrected and refiled with the Court on 31 March 2023. These replace the relevant parts of the tenders, by agreement of the parties.

The Site

32 The general description of the site and surrounding area is based on consideration of the application and site view observations, as summarised below:

(1) The site is a regular triangular shape, bounded by the Pacific Highway (east) and Newline Road (west). Six Mile Road forms the northern boundary and the southern boundary adjoins lands associated with the Irrawang Swamp.

(2) The site has a total area of 517.13 hectare (ha), with the 'northern lot' comprising an area of 113.4 ha and the 'southern lot' having an area of 407.6 ha. These lots are separated by land owned by a separate holding.

(3) The Grahamstown Dam, a major water supply infrastructure managed by the HWC, is located east of the site, separated by the Pacific Highway and vegetated land.

(4) The Tilligerry State Conservation Area is located to the east of the site. The Medowie State Conservation Area and Karuah National Park are located to the north of the site.

(5) A former Council landfill that accepted putrescible waste, is located to the southwest of the site, and was capped in 2020, whilst a current landfill accepting dry waste (the Raymond Terrace Advanced Resource Recovery Centre) is operated by Suez, and located to the south of the site.

(6) The site is topographically constrained, with a northeast-southwest trending ridgeline extending generally through the centre, with the highest elevation in the north, and sloping, in parts steeply, to the east and west.

(7) The site is divided by a number of hydraulic catchments and subcatchments, dissected by ephemeral creeks that trend towards the east (into Grahamstown Dam), west to the Williams River and Wetland 803, and south towards Wetland 804 (also known as Irrawang Swamp).

(8) The site is predominantly covered by dense vegetation (native and weeds) across its upper to mid reaches and around the wetland areas, with cleared patches and scattered trees occurring on the lower slopes. The site is surrounded and occupied by extensive areas of native vegetation.

(9) To the north of the site is emerging rural residential developments, that are currently covered in dense vegetation.

(10) A former quarry is located on the north-eastern boundary of the site towards Six Mile Road. The quarry presents as an area of excavation, unrehabilitated, surrounded by (illegal) dumping of waste.

(11) Across the site are unsealed tracks that allow vehicular access through the heavily vegetated areas.

(12) The main access to the site is currently via an unsealed road from the Pacific Highway, located in the southern portion. This access is also used, by agreement, by the Riding for Disabled Association (RDA).

(13) There is a poorly formed access track to Newline Road around Wetland 804.

33 The site has historically been used for logging, quarrying, and grazing, that has resulted in the clearing of some areas of native vegetation on the lower slopes, extensive weed growth across the site, and a crisscross of poorly formed/maintained tracks that dissect the site.

34 The site has identified areas of cultural significance, as described in the Aboriginal cultural heritage assessments by Myall Coast Archaeological Services (and Constraints Management Plan), dated July 2003 and October 2022. Culturally significant areas that are identified on the site include caves, ceremonial areas and probable songlines.

Overview and description of the amended application

35 The amended application, as described to the Court, has two key components, fundamentally being:

(a) A concept plan/proposal that outlines seven precinct areas, creating a development footprint for future residential subdivision/development, with associated access (hereafter the impact area); and a Conservation Area (hereafter the CA); and

(b) Stage 1 works relating to the establishment of the CA and clearing of the impact area (for future development).

Concept proposal

36 The concept proposal is shown in the proposed precinct plan, DA-08-C2.00 Revision 4 (dated 17 March 2023) as Figure 1 below:

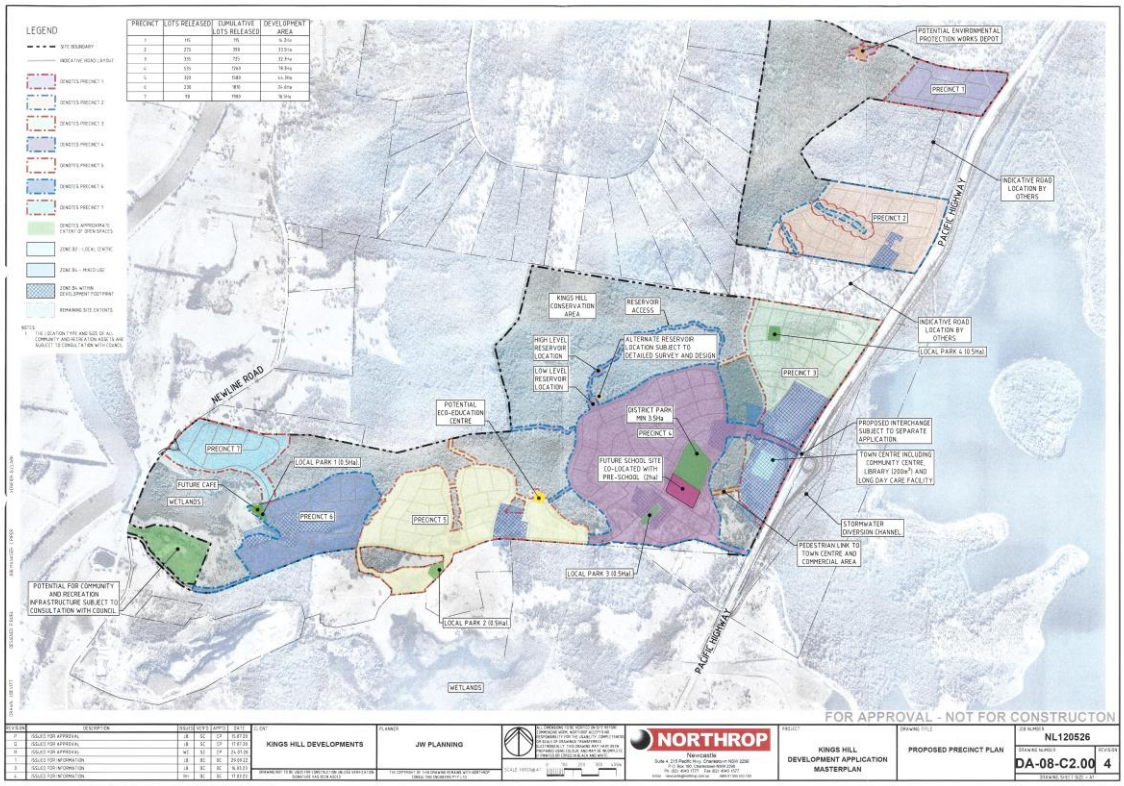


Figure 1

37 The amended concept proposal is described to the Court as being for:

(a) Definition of seven (development) precincts, ringed by a ‘Koala’ fence, an asset protection zone (APZ) and perimeter roads, that are connected by roads/paths (some elevated above riparian corridors), with ‘indicative’ internal road layouts;

(b) Within the precincts are areas of defined and indicative use, including for residential, business/commercial, town centre (precinct 3), a café (in precinct 6), local/district parks, a school (in precinct 4), stormwater devices and community/educational centre/work depot;

(c) Definition of the east-west collector road (the E-W road), extending from the Pacific Highway to Newline Road, as well as an indicative alignment of the north-south collector road;

(d) Definition of a CA; and

(e) Within the CA are areas outlined for water supply storage/reservoir and access tracks/roads to support the future development of the precincts.

38 The application does not specifically seek subdivision, however the issue of whether subdivision of the land is a component of the application, due to the effect of creating a CA and precincts, remains in dispute between the parties. This issue is addressed later in the judgement.

39 The defined precinct and CA areas were explained to the Court as being designed generally consistent with the (planning) zones applicable to the site, as described in cl 2.3 of the Port Stephens Local Environmental Plan 2013 (PSLEP), and Section D14 of the Port Stephens Development Control Plan 2014 (PSDCP), albeit with some changes to the conservation area boundaries that reflect more recent ecological considerations.

40 The CA is primarily located across the elevated topographic areas of the site, although also includes Wetland 803 and the riparian creeklines, which are generally on the mid to lower slopes. The CA extends generally in an east-west direction, up to the northern boundary of the site. The areal extent of the CA is intended to provide connectivity of habitat corridors to aid the movement of native fauna.

41 The precincts and access paths/roads are generally located on the mid to lower slopes of the site, extending to the eastern boundary with the Pacific Highway and western boundary to Newline Road.

42 It is understood that the proposed precinct and CA boundaries seek to connect and correlate with future development on adjoining lots that also form part of the KHURA, including the lots between precincts 1, 2 and 3, referred to as the ‘Gwynville land’ and the lot north of precinct 7 and the CA, known as the ‘McCloy land’.

43 As shown in Figure 1, the seven precincts are separated by riparian/fauna habitat corridors, that form part of the CA, and which generally follow the creek lines. These habitat corridors include areas beneath (precinct) connecting roads, such as the E-W road and pedestrian/cycle links. Although the proposed precinct plan is shown as two-dimensional, it must be appreciated that the

proposal is actually three-dimensional, with the CA extending beneath the elevated roads/paths connecting the precincts, and containing the riparian corridors. This is an important element in understanding the function and connectivity of the CA described in the concept proposal, because it is intended that native fauna are able to move beneath these structures and that the CA has direct connectivity across its full extent.

44 The seven precincts vary in size and physiographic condition (and future potential lot yield). Based on the amended proposed precinct plan relied on by the application, each precinct is dimensioned as follows:

- Precinct 1 – development area of 14.2ha
- Precinct 2 –development area of 33.5ha
- Precinct 3 – development area of 32.3ha
- Precinct 4 –development area of 78.3ha
- Precinct 5 – development area of 44.3ha
- Precinct 6 – development area of 24.6ha
- Precinct 7 – development area of 16.5ha

45 It was explained that the seven precincts are theoretically capable, after (future) residential subdivision, of providing up to 1900 residential lots within the KHURA, noting that the subdivision within each individual precinct is to be determined in future development applications. The actual lot yield for each precinct will be determined after more detailed assessment of the engineering constraints (slope and stormwater), and actual location/design of non-residential uses. Although shown in the proposed precinct plan, the actual location of some specified purposes such as the school and parks, will require consideration by concurrence and consent authorities as part of future development applications.

46 Future subdivision for residential development of the site will require the upgrade and provision of public infrastructure including roads, sewer and water supply/disposal, that will support both the site and the greater area of the KHURA. Parts of this public infrastructure are to be constructed by Council/State Authorities under separate approvals, not part of this application.

47 As described to the Court, consistent with the PSDCP for the Kingshill area (Section D14 of the PSDCP), future residents on the site will ultimately have entry and egress via a new interchange at the Pacific Highway (the PH interchange), to be built under agreement by TfNSW.

48 The precincts will be interconnected by the E-W road, extending from the Pacific Highway to Newline Road, and indicatively (conceptually) by a north-south collector road, connecting the E-W road to Six Mile Road (including through the Gwynville land). There is a recognised need, as described in the PSDCP, for an intersection at Six Mile Road, connecting to the north-south collector road, although this is not explored in the application.

49 There is another north-south collector road that is described in Figure DAB in Section D14 of the PSDCP (through proposed precinct 7), however this road is not shown on the proposed precinct plan, nor explored in the application. It is understood that instead of this road, it is intended that residents will rely on a new interchange at Newline Road (NR interchange), to be constructed by Council and which connects to the E-W road.

50 The application initially relied on future subdivision of the first 250 lots to have access via Newline Road, and that no further lots would be subdivided until the PH interchange was completed. However, after evidence of relevant experts, the application now seeks, by condition (12) in Exhibit L, that no subdivision certificates will be issued until the PH interchange is constructed. As agreed by the parties, the application is assessed on this basis.

51 The future development of the precincts, consistent with the concept proposal, relies on the provision of water and sewer services to the site, as described in a consent for water and sewage lead-in mains, granted by the Panel on 29 September 2020 (Exhibit 5). It was explained to the Court that the rationale behind the likely subdivision of the first 250 lots being in the eastern precincts of the site is based on accessibility to these lead-in works.

52 Future development of the eastern precincts (specifically precincts 1, 2 and 3) also relies on the construction of a north-south aligned stormwater drainage channel, to be constructed by way of a third-party agreement involving the NSW government. The actual location of this infrastructure is not yet

confirmed, although the concept proposal relies on these works being located on the eastern side of the Pacific Highway, on HWC land. This is assessed later in the judgement as it remains in contention.

53 Water storage reservoirs that will service the precincts are shown dedicated in the CA, and are to be accessed by established (and to be reformed) tracks. Indicative locations of (internal) stormwater infrastructure within each of the precinct areas are described in the concept proposal, although it is understood that these locations will be further refined in future development applications for each precinct.

Stage 1 works

54 The Stage 1 works component of the application is described to the Court as being for:

(a) Establishment of 244.25 ha as a CA (of which 231.19 ha is retained native vegetation and 13.06 ha is rehabilitated formerly cleared land), and which includes enhancement works undertaken over a nominal 5-year period; and

(b) Clearing of up to 272.91 ha, the impact area, in three phases (with three steps) over a minimum 8-year period, forming part of the initial site preparation works to create the development footprint for the precincts, E-W road and tracks in the CA.

55 The Stage 1 works seek to establish and maintain the CA (before handover to Council), prior to and coincident with the staged clearing of the impact area.

56 In consideration of the amended application, the area shown as the impact area is to be fully cleared as part of the Stage 1 works. It is understood that this is the basis on which consent is sought. In submission, however, Mr Robertson SC acknowledged that the extensive clearing of the impact area sought by the application is a worst-case scenario, whereby it is possible that future development applications relating to subdivision of each of the precincts may, after more detailed assessment, result in a reduced area of clearing.

57 Mr Robertson SC also confirmed that the ‘buffers’ proposed around the perimeter of the precincts, including the APZ, are included in the area to be clearing.

The contentions and jurisdictional issues for consideration of the (amended) application

58 The Panel's objection to the amended application is described in the Amended Statement of Facts and Contentions (ASoFC), dated 24 November 2022 (Exhibit 1). The ASOFC is based on the amendments to the application made to this date.

59 At the commencement of the hearing Ms Reid identified the primary contentions that remain are as follows:

- disorderly and uneconomic use in the development of the land, due to the ('wholesale') extent of (native) vegetation to be cleared as part of the Stage 1 works, without reliance on an appropriately detailed subdivision plan for the precincts;
- unacceptable impacts to threatened species, because the development is not informed by an adequate assessment to address significant effect to threatened species and the clearing is undertaken prior to assessment of the development footprint in each precinct;
- incompatible with the proposed voluntary planning agreement with Council, having regard to in-perpetuity arrangements, security and funding for the proposed CA;
- inconsistent with proposed mixed use and commercially zoned land, based on the conceptual location of road/stormwater infrastructure;
- potential land use conflicts due to topographic, physiographic, ecological, bushfire and hydrological constraints across the site;
- not demonstrated satisfactory arrangements have been made for the provision of designated State public infrastructure before the subdivision of land in an urban release area;
- potential impact to wetland habitats due to water quality and quantity changes associated with servicing of the future subdivision;
- no concurrence of DPIE to address potential impacts to threatened species;
- potential for acoustic impacts to future residential dwellings along the Pacific Highway; and
- consequently, not being in the public interest.

60 The parties agree that the application, made pursuant to s 4.22(1) of the EPA Act, is an appropriate approach to stage development of the site. It is accepted that the concept proposal seeks to outline residential development areas and a conservation area on the site, and there is a reliance on future development applications to detail residential lot subdivision and associated works within

each precinct. This approach is consistent with the advice given by Council to the applicants during the application process.

61 Fundamentally, the parties disagree whether the application has appropriately considered and evaluated the likelihood of impact resulting from the application, consistent with s 4.22(5) of the EPA Act. The parties do not agree that the concept proposal provides sufficient detail nor certainty to assess potential adverse impacts, or that the Stage 1 works are appropriate to satisfy the matters for consideration in s 4.15(1) of the EPA Act and relevant biodiversity legislation.

62 I understand that the application does not include the creation of roads, installation of services, stormwater devices, or precinct lot subdivision works. These have not been assessed for this application.

63 In assessment of the application, where there are jurisdictional considerations, the Court must form its own opinion of satisfaction, based on the evidence, as explained by Preston CJ in *Toga Penrith Developments Pty Limited v Penrith City Council* [2022] NSWLEC 117 (Toga judgment).

64 In consideration of s 4.15(1) of the EPA Act, I posed the following overarching questions to the parties during the hearing, which they accepted as reasonable in assessment of the issues remaining in consideration of the amended application:

- Is there a significant effect to threatened species, populations and ecological communities?
- Is appropriate flood immunity available to future residents of the site via Newline Road and the Pacific Highway?
- Is there potential to adversely impact coastal wetlands associated with the site?
- Are there adverse impacts from the concept proposal and Stage 1 works?
- Have the relevant requirements for the provision of state infrastructure been addressed?

65 The issues of relevant consideration for a concept development application are, made pursuant to s 4.22(1) of the EPA Act, was raised frequently during the hearing.

66 In consideration of the application, I adopt an approach consistent with the decision of Chief Justice Preston in *The Uniting Church in Australia Property Trust (NSW) v Parramatta City Council* [2018] NSWLEC 158*,* described at [55] below:

> "[55] The legislative amendment of s 83B(5) (now s 4.22(5) of the EPA Act), in response to the Court of Appeal's decision in Bay Simmer, supports this conclusion. The consent authority, when considering under s 4.15 of the EPA Act the likely impact of the development the subject of a concept development application, need only consider the likely impact of the concept proposals for the development of the site and does not need to consider the likely impact of carrying out the development that may be the subject of subsequent development applications. Applied to cl 7.10(4) of PLEP, the consent authority, when considering whether the development the subject of a concept development application exhibits design excellence, need consider only the likely impacts of the development the subject of the concept development application and does not need to consider the likely impacts of the carrying out of the development that may be the subject of subsequent development applications."

67 Therefore, pursuant to ss 4.15(1) and 4.22(5) of the EPA Act, I am required to consider the likely impact that relates to the concept proposal and Stage 1 works, as relied on by the application.

68 In response to an enquiry of the Court, Mr Robertson SC submitted that should the Court determine it appropriate, a partial consent for the concept proposal and part of the Stage 1 works relating to the establishment of the CA would be acceptable, pursuant to s 4.16(4) of the EPA Act. The Panel however, opposes a partial consent on the grounds of this creating the potential for uncertainty in the establishment of the CA, which is interconnected in time and space with the clearing of the impact area, as described in the application.

69 In consideration of the submission of the parties, I form the opinion that a determination for partial consent would not be appropriate for this application, pursuant to s 4.16(4) of the EPA Act. The concept proposal and Stage 1 works are interrelated in space, time and action, which I find must be assessed holistically as described and relied on by the application. I cannot reasonably separate out and consider parts of the Stage 1 works that relate only to the CA or to the precincts. There are areas and works that relate to the precincts located within the CA, such as the clearing for the access tracks that extend into the CA. There are parts of the precincts that conceptually extend over and above the CA in the third dimension, and which the ecological assessments

have relied on. There are actions such as weeding and log retrieval in the impact areas that supplement and coordinate in time with management activities in the CA.

Does the application seek subdivision of the land?

70 The question as to whether subdivision of the land is a component of the application remains in dispute between the parties. The parties do not agree whether the concept proposal effectively subdivides the land into a conservation area and (7) precincts. I resolve this issue forthwith as it informs my merit and jurisdictional assessment of the application.

71 It was explained by submission of Mr Robertson SC, that the concept proposal does not seek the actual 'subdivision of land', because this will be addressed in future development applications, by the registration on title of the CA to benefit Council and the subdivision of residential lots within the precincts. He considers that neither a 'use' nor separate occupation of the land is sought by the application. He accepts that the land is 'defined' into precincts and a conservation area as part of the concept proposal, however the adaptation of the land for separate occupation or use will occur at the later stage of the future development applications.

72 Ms Reid, in the alternative, submits that the concept proposal does effectively seek the subdivision of land, being into a CA and (7) precincts with associated infrastructure, as shown in the proposed precinct plan (and consistent with other plans). She considers the subdivision of the land as a fundamental component of the application, despite it not being specifically sought in the application description. The proposed subdivision is consistent within the meaning of s 6.2(1)(b) of the EPA Act.

73 It is an undisputed fact that the application is made up of two distinct parts: the concept proposal that defines a CA and impact area consisting of (7) precincts, roads and pathways; and Stage 1 works proposed within these defined areas.

74 Based on my assessment of the application, including consideration of the supporting plans and documents, I determine that the application seeks consent to adapt the land for separate uses. The application relies on an

effective subdivision of the land to create these two distinct uses, for conservation and development (footprint).

75 The parties provided no definition to the ‘use of land’ and the EPA Act is limited in its definition. The EPA Reg and PSLEP also provide no relevant definition. The Merriam-Webster Dictionary describes ‘use’ as being *“*…to carry out a purpose or action*”* and “act with regard to”. Land is defined as being “ground or soil of a specified situation, nature, or quality”. Adaption is described as “to make fit (as for a new use) often by modification”.

76 I am satisfied that the concept proposal, as described in the proposed precinct plan (Figure 1) effectively separates (subdivides) the land, which is adapted (by modifying the land) for two distinct uses. The Stage 1 works adapt the land based on these defined uses, being for the purpose of conservation (Conservation Area) and development footprint (impact area including 7 precincts with roads and paths). These (two) defined uses are physically divided by a fence, road and buffer, the works adapt the land relative to their distinct and separate use. The proposed physical works relating to Stage 1 modify the land consistent with the proposed adaptive use of the land.

77 This division of the land on the site into distinct parts with two separate (and intended) uses, is a fundamental component of the application. The proposed separation of the land is consistent with the meaning of the ‘subdivision of land’, as described in s 6.2(1)(b) of the EPA Act, below:

> **6.2 Meaning of “subdivision” of land (cf previous s 4B)**
>
> (1) For the purposes of this Act, subdivision of land means the division of land into 2 or more parts that, after the division, would be obviously adapted for separate occupation, use or disposition. The division may (but need not) be effected—
>
> (a) by conveyance, transfer or partition, or
>
> *(b) by any* agreement, dealing, *plan* or instrument *rendering different parts of the land available for separate occupation, use or disposition*.
>
> (2) Without limiting subsection (1), subdivision of land includes the procuring of the registration in the office of the Registrar-General of—
>
> (a) a plan of subdivision within the meaning of section 195 of the Conveyancing Act 1919, or
>
> (b) a strata plan or a strata plan of subdivision within the meaning of the Strata Schemes Development Act 2015.

Note—

The definition of plan of subdivision in section 195 of the Conveyancing Act 1919 extends to plans of subdivision for lease purposes (within the meaning of section 23H of that Act) and to various kinds of plan under the Community Land Development Act 2021.

(3) However, subdivision of land does not include—

(a) a lease (of any duration) of a building or part of a building, or

(b) the opening of a public road, or the dedication of land as a public road, by the Crown, a statutory body representing the Crown or a council, or

(c) the acquisition of land, by agreement or compulsory process, under a provision of an Act (including a Commonwealth Act) that authorises the acquisition of land by compulsory process, or

(d) a division of land effected by means of a transaction referred to in section 23G of the Conveyancing Act 1919, or

(e) the procuring of the registration in the office of the Registrar-General of—

(i) a plan of consolidation, a plan of identification or a miscellaneous plan within the meaning of section 195 of the Conveyancing Act 1919, or

(ii) a strata plan of consolidation or a building alteration plan within the meaning of the Strata Schemes Development Act 2015.

(Emphasis added)

78 The proposed precinct plan, scope of proposed concept approval plan and management plans, that support the application, consistently demonstrate the intent of the application to adapt the land for these distinct and separate uses. I am satisfied that the concept proposal seeks to identify the land intended for different uses, and the Stage 1 works effect and modify the land consistent with these separate uses.

79 I recognise, as posed by Mr Robertson SC, that the certification of subdivision of the land is sought to form part of future development applications, pursuant to s 6.2(1)(a) and (2) of the EPA Act. However, this is not the only process to effect the subdivision of the land, pursuant to s 6.2(1)(b).

Relevant Jurisdictional considerations

80 The application is made pursuant to s 4.22(1) of the EPA Act, below:

4.22 Concept development applications (cf previous s 83B)

(1) For the purposes of this Act, a concept development application is a development application that sets out concept proposals for the development

of a site, and for which detailed proposals for the site or for separate parts of the site are to be the subject of a subsequent development application or applications.

(2) In the case of a staged development, the application may set out detailed proposals for the first stage of development.

(3) A development application is not to be treated as a concept development application unless the applicant requests it to be treated as a concept development application.

(4) If consent is granted on the determination of a concept development application, the consent does not authorise the carrying out of development on any part of the site concerned unless—

(a) consent is subsequently granted to carry out development on that part of the site following a further development application in respect of that part of the site, or

(b) the concept development application also provided the requisite details of the development on that part of the site and consent is granted for that first stage of development without the need for further consent.

The terms of a consent granted on the determination of a concept development application are to reflect the operation of this subsection.

(5) The consent authority, when considering under section 4.15 the likely impact of the development the subject of a concept development application, need only consider the likely impact of the concept proposals (and any first stage of development included in the application) and does not need to consider the likely impact of the carrying out of development that may be the subject of subsequent development applications.

Note—

The proposals for detailed development of the site will require further consideration under section 4.15 when a subsequent development application is lodged (subject to subsection (2)).

81 Matters for consideration to grant consent to the application, are described in s 4.15(1) of the EPA Act, below:

4.15 Evaluation (cf previous s 79C)

(1) Matters for consideration—general In determining a development application, a consent authority is to take into consideration such of the following matters as are of relevance to the development the subject of the development application—

(a) the provisions of—

(i) any environmental planning instrument, and

(ii) any proposed instrument that is or has been the subject of public consultation under this Act and that has been notified to the consent authority (unless the Planning Secretary has notified the consent authority that the making of the proposed instrument has been deferred indefinitely or has not been approved), and

(iii) any development control plan, and

(iiia) any planning agreement that has been entered into under section 7.4, or any draft planning agreement that a developer has offered to enter into under section 7.4, and

(iv) the regulations (to the extent that they prescribe matters for the purposes of this paragraph),

(v) (Repealed)

that apply to the land to which the development application relates,

(b) the likely impacts of that development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality,

(c) the suitability of the site for the development,

(d) any submissions made in accordance with this Act or the regulations,

(e) the public interest.

(2) Compliance with non-discretionary development standards—development other than complying development If an environmental planning instrument or a regulation contains non-discretionary development standards and development, not being complying development, the subject of a development application complies with those standards, the consent authority—

(a) is not entitled to take those standards into further consideration in determining the development application, and

(b) must not refuse the application on the ground that the development does not comply with those standards, and

(c) must not impose a condition of consent that has the same, or substantially the same, effect as those standards but is more onerous than those standards,

and the discretion of the consent authority under this section and section 4.16 is limited accordingly.

(3) If an environmental planning instrument or a regulation contains non-discretionary development standards and development the subject of a development application does not comply with those standards—

(a) subsection (2) does not apply and the discretion of the consent authority under this section and section 4.16 is not limited as referred to in that subsection, and

(b) a provision of an environmental planning instrument that allows flexibility in the application of a development standard may be applied to the non-discretionary development standard.

Note—

The application of non-discretionary development standards to complying development is dealt with in section 4.28(3) and (4).

(3A) Development control plans If a development control plan contains provisions that relate to the development that is the subject of a development application, the consent authority—

(a) if those provisions set standards with respect to an aspect of the development and the development application complies with those standards—is not to require more onerous standards with respect to that aspect of the development, and

(b) if those provisions set standards with respect to an aspect of the development and the development application does not comply with those standards—is to be flexible in applying those provisions and allow reasonable alternative solutions that achieve the objects of those standards for dealing with that aspect of the development, and

(c) may consider those provisions only in connection with the assessment of that development application.

In this subsection, standards include performance criteria.

…

(6) Definitions In this section—

(a) reference to development extends to include a reference to the building, work, use or land proposed to be erected, carried out, undertaken or subdivided, respectively, pursuant to the grant of consent to a development application, and

(b) non-discretionary development standards means development standards that are identified in an environmental planning instrument or a regulation as non-discretionary development standards.

82 The application was declared a regionally significant development, pursuant to s 4.5(b) of the EPA Act. Section 20(1) and Sch 6, s 2 of the State Environmental Planning Policy (Planning Systems) 2021 are engaged by the application, based on the capital value of the development investment.

83 When the application was lodged with Council, the *Threatened Species Conservation Act 1995* (TSC Act), had been repealed and replaced by the *Biodiversity Conservation Act 2016* (BC Act), which came into effect on 25 August 2017.

84 However, the site forms part of the Port Stephens Local Government Area (LGA), and at the time of lodgement of the application, this LGA was identified as an ‘interim designated area’, and subject to transitional arrangements of the BC Act. The application is assessed as a deemed pending or interim planning application, consistent with Pt 7 of the Biodiversity Conservation (Savings and Transitions) Regulation 2017 (Savings Reg).

85 Under Sch 9 of the BC Act, and cll 27 and 28 of the Savings Reg (described below), former relevant planning provisions of the TSC Act and EPA Act (as at 24 August 2017) are engaged in consideration of the application:

> **27 Definitions: Part 7**
>
> (1) In this Part—
>
> *former planning provisions* means the provisions of the Environmental Planning and Assessment Act 1979 that would be in force if that Act had not been amended by the new Act.
>
> *pending Part 5 assessment* of an activity for which the proponent is not also the determining authority, means—
>
> (a) an environmental impact assessment of the activity under Part 5 of the Environmental Planning and Assessment Act 1979 if the determining authority granted approval before the commencement of the new Act to the carrying out of the activity, or
>
> (b) an environmental impact assessment of the activity that began under Part 5 of the Environmental Planning and Assessment Act 1979 before the commencement of the new Act (but only if the determining authority grants approval within 18 months of that commencement to the carrying out of the activity).
>
> *pending or interim planning application* means any of the following—
>
> (a) an application for planning approval (or for the modification of a planning approval) made before the commencement of the new Act but not finally determined immediately before that commencement,
>
> (b) an application for planning approval (or for the modification of a planning approval) made within 18 months after the commencement of the new Act if an environmental impact statement is to be submitted in connection with the application and the Secretary of the Department of Planning and Environment issued, before the commencement of the new Act, environmental assessment requirements for the preparation of the statement,
>
> (c) an application for planning approval (or for the modification of a planning approval) made within 12 months after the commencement of the new Act if a species impact statement is to be submitted in connection with the application and the Environment Agency Head issued, before the commencement of the new Act, requirements for the preparation of the statement,
>
> (d) an application for planning approval (or for the modification of a planning approval) made after the commencement of the new Act if an environmental impact statement is to be submitted in connection with the application and the Secretary of the Department of Planning and Environment determines in writing that the proponent had undertaken substantial environmental assessment in connection with the statement before the commencement of the new Act (but only if the application is made within 18 months after that determination),
>
> (e) except in the case of State significant development—an application for development consent under Part 4 of the Environmental Planning and Assessment Act 1979 (or for the modification of such a development consent) made within 6 months after the commencement of the new Act (but only if any

species impact statement that is to be submitted in connection with the application is submitted within 12 months after the commencement of the new Act),

…

(f1) in the case of development (except State significant development) within an expired interim designated area under subclause (3)—an application for development consent under Part 4 of the Environmental Planning and Assessment Act 1979 (or for the modification of such a development consent) made on or before 24 November 2018 (but only if any species impact statement that is to be submitted in connection with the application is submitted on or before 24 May 2019),

…

planning approval means—

(a) a development consent under Part 4 of the Environmental Planning and Assessment Act 1979, or

(b) a State significant infrastructure approval under Part 5.1 of that Act.

planning approval body means—

(a) in relation to an application for development consent under Part 4 of the Environmental Planning and Assessment Act 1979 (or for the modification of such a consent)—the consent authority, or

(b) in relation to an application for State significant infrastructure approval under Part 5.1 of that Act (or for the modification of such an approval)—the Minister administering that Act.

(2) For the purposes of paragraph (b) of the definition of pending or interim planning application in subclause (1), if the environmental assessment requirements referred to in that paragraph are re-issued, then the application is a pending planning application if the application is made within 18 months after the re-issue of the requirements (but only if the application is made within 3 years after the commencement of the new Act).

…

(3A) For the purposes of paragraph (f1) of the definition of pending or interim planning application in subclause (1), the following are expired interim designated areas—

(a) the local government areas of Central Coast, City of Cessnock, City of Coffs Harbour, City of Lake Macquarie, City of Maitland, City of Newcastle and Port Stephens,

…

28 Former planning provisions continue to apply to pending or interim planning applications

(1) The former planning provisions continue to apply (and Part 7 of the new Act does not apply) to the determination of a pending or interim planning application.

(2) However, Part 7 of the new Act applies to the determination of a pending or interim planning application referred to in paragraph (b), (c) or (d) of the definition of pending or interim planning application in clause 27 (1) if the

applicant or proponent and the planning approval body for the application agree in writing that Part 7 of the new Act is to apply to the determination of the application instead of the former planning provisions.

86 Pursuant to cl 28(1) of the Savings Reg, Pt 7 of the BC Act does not apply in consideration of this application. The application is relevantly assessed against several former provisions of the EPA Act, specifically ss 5A, 78A(8) and 79B, as described below:

> **5A Significant effect on threatened species, populations or ecological communities, or their habitats**
>
> (1) For the purposes of this Act and, in particular, in the administration of sections 78A, 79B, 79C, 111 and 112, the following must be taken into account in deciding whether there is likely to be a significant effect on threatened species, populations or ecological communities, or their habitats:
>
> (a) each of the factors listed in subsection (2),
>
> (b) any assessment guidelines.
>
> (2) The following factors must be taken into account in making a determination under this section:
>
> (a) in the case of a threatened species, whether the action proposed is likely to have an adverse effect on the life cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction,
>
> (b) in the case of an endangered population, whether the action proposed is likely to have an adverse effect on the life cycle of the species that constitutes the endangered population such that a viable local population of the species is likely to be placed at risk of extinction,
>
> (c) in the case of an endangered ecological community or critically endangered ecological community, whether the action proposed:
>
> (i) is likely to have an adverse effect on the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction, or
>
> (ii) is likely to substantially and adversely modify the composition of the ecological community such that its local occurrence is likely to be placed at risk of extinction,
>
> (d) in relation to the habitat of a threatened species, population or ecological community:
>
> (i) the extent to which habitat is likely to be removed or modified as a result of the action proposed, and
>
> (ii) whether an area of habitat is likely to become fragmented or isolated from other areas of habitat as a result of the proposed action, and
>
> (iii) the importance of the habitat to be removed, modified, fragmented or isolated to the long-term survival of the species, population or ecological community in the locality,

(e) whether the action proposed is likely to have an adverse effect on critical habitat (either directly or indirectly),

(f) whether the action proposed is consistent with the objectives or actions of a recovery plan or threat abatement plan,

(g) whether the action proposed constitutes or is part of a key threatening process or is likely to result in the operation of, or increase the impact of, a key threatening process.

(3) In this section:

assessment guidelines means assessment guidelines issued and in force under section 94A of the Threatened Species Conservation Act 1995 or, subject to section 5C, section 220ZZA of the Fisheries Management Act 1994.

key threatening process has the same meaning as in the Threatened Species Conservation Act 1995 or, subject to section 5C, Part 7A of the Fisheries Management Act 1994.

78A Application

….

(8) A development application (other than an application in respect of State significant development) must be accompanied by:

(a) if the application is in respect of designated development—an environmental impact statement prepared by or on behalf of the applicant in the form prescribed by the regulations, or

(b) if the application is in respect of development on land that is, or is a part of, critical habitat or is likely to significantly affect threatened species, populations or ecological communities, or their habitats—a species impact statement prepared in accordance with Division 2 of Part 6 of the Threatened Species Conservation Act 1995.

79B Consultation and concurrence

(1) General If, by an environmental planning instrument, the consent authority, before determining the development application, is required to consult with or to obtain the concurrence of a person, the consent authority must, in accordance with the environmental planning instrument and the regulations, consult with or obtain the concurrence of the person, unless the consent authority determines to refuse to grant development consent.

(2) However, if, by an environmental planning instrument, the Minister, before determining a development application, is required to obtain the concurrence of a person, the Minister is required only to consult with the person.

(2A) State significant development—exclusion This section does not apply to State significant development unless the requirement of an environmental planning instrument for consultation or concurrence specifies that it applies to State significant development.

(3) Consultation and concurrence—threatened species Development consent cannot be granted for:

(a) development on land that is, or is a part of, critical habitat, or

(b) development that is likely to significantly affect a threatened species, population, or ecological community, or its habitat,

without the concurrence of the Chief Executive of the Office of Environment and Heritage or, if a Minister is the consent authority, unless the Minister has consulted with the Minister administering the Threatened Species Conservation Act 1995.

Note—

The development is taken not to significantly affect threatened species, populations or ecological communities, or their habitats if:

(a) the development is to be carried out on biodiversity certified land (within the meaning of Part 7AA of the Threatened Species Conservation Act 1995), or

(b) a biobanking statement has been issued in respect of the development under Part 7A of the Threatened Species Conservation Act 1995.

(4) Despite subsection (3), if the Minister administering the Threatened Species Conservation Act 1995 considers that it is appropriate, that Minister may:

(a) elect to act in place of the Chief Executive of the Office of Environment and Heritage for the purposes of that subsection, or

(b) review and amend any recommendations that the Chief Executive proposes to make, or any advice that the Chief Executive proposes to offer, for the purposes of that subsection.

(5) In deciding whether or not concurrence should be granted under subsection (3), the Chief Executive of the Office of Environment and Heritage or the Minister administering the Threatened Species Conservation Act 1995 must take the following matters into consideration:

(a) any species impact statement that accompanied the development application,

(b) any assessment report prepared by the consent authority,

(c) any submissions received concerning the development application,

(d) any relevant recovery plan or threat abatement plan,

(e) whether the development proposed is likely to reduce the long-term viability of the species, population or ecological community in the region,

(f) whether the development is likely to accelerate the extinction of the species, population or ecological community or place it at risk of extinction,

(g) the principles of ecologically sustainable development,

(h) the likely social and economic consequences of granting or of not granting concurrence.

(6) The Minister administering the Threatened Species Conservation Act 1995 must provide the Minister who is the consent authority with any recommendations made by the Chief Executive of the Office of Environment

and Heritage concerning determination of a development application relating to development referred to in subsection (3) and, if that Minister does not accept any one or more of the recommendations, that Minister must include in the determination the recommendations not accepted and that Minister's reasons for not accepting them.

(7) A copy of the reasons referred to in subsection (6) must be available for public inspection, during ordinary office hours, at the head office of the National Parks and Wildlife Service.

(8) Granting or refusal of concurrence A person whose concurrence to development is required may:

> (a) grant concurrence to the development, either unconditionally or subject to conditions, or
>
> (b) refuse concurrence to the development.
>
> In deciding whether to grant concurrence, the person must take into consideration only the matters stated pursuant to section 30 (3) and applicable to the development (unless the relevant environmental planning instrument is a deemed instrument referred to in Division 2 of Part 21 of Schedule 6).

(8A) Threatened species requirements The Chief Executive of the Office of Environment and Heritage may grant concurrence under this section conditional on the taking of specified action (voluntary action, as provided by subsection (8B)) that the Chief Executive considers will significantly benefit threatened species conservation, but only if the Chief Executive is satisfied that the person who proposes to carry out the development to which the concurrence relates has agreed to take the voluntary action and agrees to the imposition of the condition.

(8B) The voluntary action that can be required by a condition imposed under this section is any one or more of the following:

> (a) the reservation of land under Part 4 of the National Parks and Wildlife Act 1974 or the entering into of a conservation agreement relating to the land under that Act,
>
> (b) action to secure the protection of land for conservation purposes by a method that the Chief Executive considers satisfactory,
>
> (c) action to restore threatened species habitat on land referred to in paragraph (a) or (b),
>
> (d) the contribution of money for a purpose referred to in paragraphs (a)–(c).

(9) Giving effect to concurrence A consent authority that grants consent to the carrying out of development for which a concurrence has been granted must grant the consent subject to any conditions of the concurrence. This does not affect the right of the consent authority to impose conditions under section 80A not inconsistent with the conditions of the concurrence or to refuse consent.

(10) Avoidance of consents subject to concurrence If, by an environmental planning instrument or by subsection (3), a development application may not be determined by the granting of consent without the concurrence of a specified person, a consent granted:

(a) without that concurrence, or

(b) not subject to any conditions of the concurrence,

is, subject to sections 102–104, voidable.

(11) However, if the specified person fails to inform the consent authority of the decision concerning concurrence within the time allowed for doing so, the consent authority may determine the development application without the concurrence of the specified person and a development consent so granted is not voidable on that ground.

(12) Nothing in this section affects any liability of a consent authority in respect of a consent granted as referred to in subsection (10) (a) or (b).

87 Pursuant to cl 31 of the Savings Reg, the change to the listing of the Koala (*Phascolarctos cinereus*) on 20 May 2022 from vulnerable to endangered is a relevant consideration of the application.

88 Pursuant to (former) s 79B(3) of the EPA Act, concurrence of the relevant authority, being OEH at the time of application, is required for consent. It is noted that concurrence was refused by (the now) DPIE, pursuant to s 79B(8)(b).

89 Although concurrence was not given by DPIE for the application, after consideration of the application, and if satisfied with regards to the potential impact to threatened species, the Court has the power to grant consent, pursuant to s 8.14(3) of the EPA Act and s 39 of the *Land and Environment Court Act 1979* (LEC Act).

90 As an integrated development, concurrence of relevant authorities is also sought, pursuant to s 4.47 of the EPA Act. RFS, Fisheries NSW, TfNSW and NRAR were sought for their advice in assessment of the application, and their responses, where relevant, are provided later in the judgement.

91 Several provisions of the TSC Act apply in consideration of the application, including ss 109, 110, 111 and 112, described below:

109 Form of species impact statements

(1) A species impact statement must be in writing.

(2) A species impact statement must be signed by the principal author of the statement and by:

(a) the applicant for the licence, or

(b) if the species impact statement is prepared for the purposes of the Planning Act, the applicant for development consent or the proponent of the activity proposed to be carried out (as the case requires), or

(c) if the species impact statement is prepared for the purposes of the Plantations and Reafforestation Act 1999, the applicant for authorisation under that Act.

110 Content of species impact statement

(1) A species impact statement must include a full description of the action proposed, including its nature, extent, location, timing and layout and, to the fullest extent reasonably practicable, the information referred to in this section.

(2) A species impact statement must include the following information as to threatened species and populations:

(a) a general description of the threatened species or populations known or likely to be present in the area that is the subject of the action and in any area that is likely to be affected by the action,

(b) an assessment of which threatened species or populations known or likely to be present in the area are likely to be affected by the action,

(c) for each species or population likely to be affected, details of its local, regional and State-wide conservation status, the key threatening processes generally affecting it, its habitat requirements and any recovery plan or threat abatement plan applying to it,

(d) an estimate of the local and regional abundance of those species or populations,

(e) an assessment of whether those species or populations are adequately represented in conservation reserves (or other similar protected areas) in the region,

(e1) an assessment of whether any of those species or populations is at the limit of its known distribution,

(f) a full description of the type, location, size and condition of the habitat (including critical habitat) of those species and populations and details of the distribution and condition of similar habitats in the region,

(g) a full assessment of the likely effect of the action on those species and populations, including, if possible, the quantitative effect of local populations in the cumulative effect in the region,

(h) a description of any feasible alternatives to the action that are likely to be of lesser effect and the reasons justifying the carrying out of the action in the manner proposed, having regard to the biophysical, economic and social considerations and the principles of ecologically sustainable development,

(i) a full description and justification of the measures proposed to mitigate any adverse effect of the action on the species and populations, including a compilation (in a single section of the statement) of those measures,

(j) a list of any approvals that must be obtained under any other Act or law before the action may be lawfully carried out, including details of

the conditions of any existing approvals that are relevant to the species or population.

(3) A species impact statement must include the following information as to ecological communities:

(a) a general description of the ecological community present in the area that is the subject of the action and in any area that is likely to be affected by the action,

(b) for each ecological community present, details of its local, regional and State-wide conservation status, the key threatening processes generally affecting it, its habitat requirements and any recovery plan or any threat abatement plan applying to it,

(b1) an assessment of whether those ecological communities are adequately represented in conservation reserves (or other similar protected areas) in the region,

(b2) an assessment of whether any of those ecological communities is at the limit of its known distribution,

(c) a full description of the type, location, size and condition of the habitat of the ecological community and details of the distribution and condition of similar habitats in the region,

(d) a full assessment of the likely effect of the action on the ecological community, including, if possible, the quantitative effect of local populations in the cumulative effect in the region,

(e) a description of any feasible alternatives to the action that are likely to be of lesser effect and the reasons justifying the carrying out of the action in the manner proposed, having regard to the biophysical, economic and social considerations and the principles of ecologically sustainable development,

(f) a full description and justification of the measures proposed to mitigate any adverse effect of the action on the ecological community, including a compilation (in a single section of the statement) of those measures,

(g) a list of any approvals that must be obtained under any other Act or law before the action may be lawfully carried out, including details of the conditions of any existing approvals that are relevant to the ecological community.

(4) A species impact statement must include details of the qualifications and experience in threatened species conservation of the person preparing the statement and of any other person who has conducted research or investigations relied on in preparing the statement.

(5) The requirements of subsections (2) and (3) in relation to information concerning the State-wide conservation status of any species or population, or any ecological community, are taken to be satisfied by the information in that regard supplied to the principal author of the species impact statement by the National Parks and Wildlife Service, which information that Service is by this subsection authorised and required to provide.

111 Chief Executive's requirements

(1) The person applying for the licence (or, if the species impact statement is being prepared for the purposes of the Planning Act, the applicant for development consent or the proponent of the activity or, if the species impact statement is being prepared for the purposes of the Plantations and Reafforestation Act 1999, the applicant for authorisation under that Act) must request from the Chief Executive and must, in preparing the species impact statement, comply with any requirements notified to the person by the Chief Executive concerning the form and content of the statement.

(2) The Chief Executive must notify any requirements under this section within 28 days after having been requested to provide them.

(3) Despite the other provisions of this Division, the Chief Executive may, having regard to the circumstances of a particular case, limit or modify (or limit and modify) the matters to be included in a species impact statement in such manner as may be specified by the Chief Executive in the particular case.

(4) Despite anything in this Act or the Planning Act or the Plantations and Reafforestation Act 1999, the Chief Executive may, having regard to the circumstances of a particular case, dispense with the requirement for a species impact statement in the particular case if the Chief Executive is satisfied that the impact of the activity concerned will be trivial or negligible.

112 Regulations

The regulations may make further provision for or with respect to the form and contents of species impact statements.

92 The site is mapped as bushfire prone, and therefore any future residential subdivision will be subject to consideration of s 4.14 of the EPA Act and s 100B of the *Rural Fires Act 1997* (RF Act). It is agreed this is not a jurisdictional requirement at the concept stage. To demonstrate that future residential development on the site can address the relevant jurisdictional requirements, the RFS has provided its concurrence after review of the application. RFS is satisfied that the proposed precinct plan has considered the Planning for Bushfire Protection guidelines, by adopting appropriately sized APZ's around the margins of the precincts (and along the E-W road).

93 It was noted that the outline of the precincts described in the proposed precinct plan supporting the application relies on a shape and location of APZ's that could likely constrain future subdivision of lots. It is acknowledged that the school, proposed within Precinct 4, is a designated special fire protection purpose, pursuant to s 100B(6) of the RF Act. An appropriately sized APZ would therefore be required in future development applications. This however is not relevant for consideration of the application.

94 The site is located within the hydraulic catchments of Grahamstown Dam and Irrawang Swamp (Wetland 804), which form part of HWC's designated area of operations and/a special area. In response to s 51 of the *Hunter Water Act 1991*, below, HWC have provided written responses relating to potential water quality impact on its infrastructure/assets (the Grahamstown Dam and Wetland 804):

> **51 Consent authority to notify Corporation of certain applications etc**
>
> (1) In this section, consent authority has the meaning given in the Environmental Planning and Assessment Act 1979 and includes a council to which an application for approval to erect a building under Part 1 of Chapter 7 of the Local Government Act 1993 may be made.
>
> (2) If a consent authority within the area of operations or a special area receives a development application or building application in relation to any matter that, in the opinion of the consent authority, may:
>
> (a) significantly damage or interfere with the Corporation's works, or
>
> (b) significantly adversely affect the Corporation's operations, or
>
> (c) significantly adversely affect the quality of the water from which the Corporation draws its supply of water in a special area,
>
> the consent authority must, within 7 days of the receipt of the application, give the Corporation notice of the application.
>
> (3) The consent authority must take into account any submissions made by the Corporation in relation to the development application or building application in determining whether to consent to the development application or building application or to attach conditions to any such consent.
>
> (4) The consent authority may assume that the Corporation has no submissions to make in relation to a development application or building application of which notice has been given under this section if no such submissions are received by the consent authority within 21 days after the notice was given to the Corporation.
>
> (5) If a consent authority has complied with this section in relation to a development application, the consent authority is not required to comply with this section in relation to a building application that deals with the same subject matter as the development application.

95 It is noted that HWC have expressed concern regarding the potential for biodiversity impacts resulting from the preferred alignment of the proposed drainage channel, a State public infrastructure, that is relied on by the application to service the future residential development of the KHURA. This is considered later in the judgment.

96 The site is bisected by numerous watercourses, mapped as first/second/third order streams, with relevant riparian buffer requirements, pursuant to the *Water*

Management Act 2000 (WM Act). The proposed works in streams, relating to Stage 1 works, require a controlled activity approval, pursuant to s 91 of the WM Act. NRAR have provided their General Terms of Approval (GTA's), which are adopted in the agreed draft conditions of consent.

97 The site has identified potential fish habitats associated with Wetlands 803 (and 804), therefore the requirements of *the Fisheries Management Act 1994* are relevant for consideration. The application is supported by a Fish Habitat report prepared by RPS, dated 22 May 2019, which recommends seeking concurrence of DPI in future development applications. DPI have raised no objection to the (concept) application and have issued GTA's, which are adopted in the agreed draft conditions of consent.

98 Pursuant to cl 49 of the EPA Reg, the applicant has satisfied the Court with the provision of written consent from all landowners relating to the application. It is understood that all proposed works are located within the boundaries of the site.

99 The site, located within the Port Stephens LGA, is mapped and described in the Port Stephens Council Comprehensive Koala Plan of Management (PSCPoM). The site is mapped as containing potential core Koala habitat, pursuant to ss 3.6 and 3.7 of the State Environmental Planning Policy (Biodiversity and Conservation) 2021 (SEPP Biodiversity). The application is considered pursuant to the requirements of ss 3.8 and 3.9, recognising that the guidelines described in s 3.15 are not yet published.

100 Pursuant to s 2.7 of the State Environmental Planning Policy (Resilience and Hazards) 2021 (SEPP Resilience), Wetland 803 (in the west of the site), Wetland 804 (south of the site) and Wetland 802 (west of the site) are mapped as being coastal wetlands. Although no works are described in the application within the areas mapped as coastal wetland, there remains a dispute between the experts as to the certainty of future works to extend into the coastal wetland area of Wetland 802. The requirements of cl 2.7 are described below and where engaged are considered later in the judgement:

> **2.7 Development on certain land within coastal wetlands and littoral rainforests area**

(1) The following may be carried out on land identified as “coastal wetlands” or “littoral rainforest” on the Coastal Wetlands and Littoral Rainforests Area Map only with development consent—

(a) the clearing of native vegetation within the meaning of Part 5A of the Local Land Services Act 2013,

(b) the harm of marine vegetation within the meaning of Division 4 of Part 7 of the Fisheries Management Act 1994,

(c) the carrying out of any of the following—

(i) earthworks (including the depositing of material on land),

(ii) constructing a levee,

(iii) draining the land,

(iv) environmental protection works,

(d) any other development.

Note—

Clause 2.14 provides that, for the avoidance of doubt, nothing in this Part—

(a) permits the carrying out of development that is prohibited development under another environmental planning instrument, or

(b) permits the carrying out of development without development consent where another environmental planning instrument provides that the development may be carried out only with development consent.

(2) Development for which consent is required by subsection (1), other than development for the purpose of environmental protection works, is declared to be designated development for the purposes of the Act.

(3) Despite subsection (1), development for the purpose of environmental protection works on land identified as “coastal wetlands” or “littoral rainforest” on the Coastal Wetlands and Littoral Rainforests Area Map may be carried out by or on behalf of a public authority without development consent if the development is identified in—

(a) the relevant certified coastal management program, or

(b) a plan of management prepared and adopted under Division 2 of Part 2 of Chapter 6 of the Local Government Act 1993, or

(c) a plan of management under Division 3.6 of the Crown Land Management Act 2016.

(4) A consent authority must not grant consent for development referred to in subsection (1) unless the consent authority is satisfied that sufficient measures have been, or will be, taken to protect, and where possible enhance, the biophysical, hydrological and ecological integrity of the coastal wetland or littoral rainforest.

(5) Nothing in this section requires consent for the damage or removal of a priority weed within the meaning of clause 32 of Schedule 7 to the Biosecurity Act 2015.

> (6) This section does not apply to the carrying out of development on land reserved under the National Parks and Wildlife Act 1974 if the proposed development is consistent with a plan of management prepared under that Act for the land concerned.

101 According to the plans that support the application, future development of precinct 7 will rely on stormwater infrastructure located within the proximity area of a coastal wetland (Wetland 803). The extent of works in the coastal wetland area remains in dispute between the experts. The requirements of s 2.8 of the SEPP Resilience, are described below, and addressed later in this judgement:

> **2.8 Development on land in proximity to coastal wetlands or littoral rainforest**
>
> Note—
>
> The Coastal Wetlands and Littoral Rainforests Area Map identifies certain land that is inside the coastal wetlands and littoral rainforests area as "proximity area for coastal wetlands" or "proximity area for littoral rainforest" or both.
>
> (1) Development consent must not be granted to development on land identified as "proximity area for coastal wetlands" or "proximity area for littoral rainforest" on the Coastal Wetlands and Littoral Rainforests Area Map unless the consent authority is satisfied that the proposed development will not significantly impact on—
>
> (a) the biophysical, hydrological or ecological integrity of the adjacent coastal wetland or littoral rainforest, or
>
> (b) the quantity and quality of surface and ground water flows to and from the adjacent coastal wetland or littoral rainforest.

102 The site is located within land mapped as a coastal environment area and coastal use area, pursuant to ss 2.10 and 2.11 of the SEPP Resilience, which are a consideration of the Court and addressed later in the judgement.

103 Clause 4.6 of the SEPP Resilience is a relevant consideration, particularly as the development footprint for precinct 6 is in proximity to a former Council operated landfill and the current Raymond Terrace Resource Recovery Facility (Suez landfill). Based on the contamination assessments that support the application (tendered in Exhibits 8 and A), merit assessment by Council and evidence of the experts, it is the opinion of the Court that the application does not propose future development on contaminated land, and that together with the agreed draft conditions of consent, the requirements of s 4.6 are sufficiently addressed.

104 Due to the proximity of future residents and the requirement to access the site via the Pacific Highway, a classified road, ss 2.119 and 2.120 of the State Environmental Planning Policy (Transport and infrastructure) 2021 (SEPP Infrastructure) are engaged in consideration of the application. It is understood that the application does not propose any actual works to the Pacific Highway or dwellings. In response to a referral request, the TfNSW have raised no objection to the application. Future works to the Pacific Highway will form part of separate development application under Pt 5 of the EPA Act. Having regard to the relevant provisions of the SEPP Infrastructure, I am satisfied the requirements of SEPP infrastructure are addressed.

105 The site is located on multiple zoned lands, pursuant to cl 2.3 of the PSLEP, including: R1 General Residential; E2 Local Centre; E4 General Industrial; and C2 Environmental Conservation. The site adjoins and within proximity of lands zoned: SP1 Special Activities (to the south and east); SP2 Infrastructure (to the south); RE1 Public Recreation (to the west); and RU2 Rural landscape (to the south and north). The majority of the site (517.13 ha) is zoned C2. The proposed (development) precincts and CA are generally consistent with the defined planning zones and the Stage 1 works are permissible in their respective zones. The application is consistent with the objectives of the relevant zones.

106 Relevant provisions of the PSLEP are engaged by the application, pursuant to s 4.15(1) of the EPA Act. As I have assessed that subdivision of the land is a fundamental part of the application, cl 6.1 of the PSLEP is a relevant provision for consideration of the application, which is discussed later in the judgment.

107 The following provisions of the PSLEP are relevant for consideration of the application, being cll 4.1, 5.10, 5.21, 6.1, 6.2, 6.3, 6.5, 6.6, 7.1, 7.2, 7.4, 7.6, 7.8, 7.9 and 7.11. I am satisfied that the following provisions of the PSLEP are addressed:

- Pursuant to cl 4.1, the proposed size of the subdivided areas shown on the proposed precinct plan, construed as a ‘lot’ for the purpose of assessment of this provision are sufficient in size.
- Pursuant to cl 5.10, the site is mapped as having items of cultural significance. I am satisfied by the provision of an Aboriginal cultural heritage assessment,

prepared by Myall Coast Archaeological Services, dated July 2003 and October 2022, and that heritage items are primarily contained within the extent of the CA.

- Pursuant to cl 6.2, Council, in a letter to the applicants (in Exhibit A) have expressed their satisfaction that the public utility infrastructure essential to the future development of the site (and KHURA) can be provided when required, including water, sewer and electricity.
- Pursuant to cl 7.1, a large part of the site is mapped as having Class 5 acid sulfate soils (ASS), a small area of Class 3 ASS, and the area of Wetland 803 is mapped as Class 2 ASS. The application does not propose carrying out of any works that would further engage this provision.
- Pursuant to cl 7.2, it is assessed that earthworks are not proposed in this application, consistent with the Council's assessment report to the Panel. Earthworks are defined in the PSLEP as being for 'excavation or filling'. I do not consider that the proposed clearing or Stage 1 works result in the removal of soil or rock within the meaning of 'excavation'.
- Pursuant to cl 7.4, the application does not propose works that would penetrate the Obstacle Limitation Surface, as mapped across the site.

108 The remaining relevant provisions of the PSLEP remain in dispute and where relevant, are assessed later in this judgement.

109 The PSDCP is relevant for consideration of the Court, namely, Sections B, C, and D. Section D14 is of particular significance as it relates to the development control plan specific to the KHURA.

Documents that support and are in consideration of the application

110 Documents that support the application, many of which the expert's reference in evidence, and that the Court has had regard to, include, although are not limited to:

(a) Concept Development Application report by JW Planning, dated 23 November 2018 and Addendum, dated 24 September 2020 (Exhibit A)

(b) Engineering Report Kings Hill Masterplan by Northrop, dated 11 December 2019 (Exhibit A)

(c) Assessment of the Kings Hill development impacts on the hydrology and vegetation of Irrawang Swamp and Coastal Wetland 803 by Alluvium, dated December 2019 (Exhibit A)

(d) Kings Hill Urban Release Area road traffic noise assessment by EMM, dated December 2019 (Exhibit A)

(e) Bush Fire Assessment report by Australia Bushfire Consulting Services, dated March 2020 (Exhibit A)

(f) Kings Hill Urban Release Area Development Application – Masterplan by Northrop, plans with various dates (Exhibit A)

(g) Species Impact Statement (SIS) by RPS, dated 14 May 2021 (Exhibit A)

(h) Flood Study for proposed stormwater diversion channel by Northrop, dated 29 February 2016 (Exhibit B)

(i) Kings Hill Flood Free Access Review Study by BMT WBM, dated 21 November 2017 (Exhibit B)

(j) Response to Hydrology Issues by Martens, dated October 2022 (Exhibit B)

(k) Kings Hill Stormwater Channel. Review of Environmental Factors (REF), Draft, dated September 2019 (Exhibit B)

(l) Kings Hill Interchange. REF, Draft, dated September 2019 (Exhibit B)

(m) Individual expert reports for applicant (Exhibit C) and second respondent (Exhibit 7), and joint expert reports (Exhibit 8)

(n) Water Sensitive Development Strategy Guidelines Port Stephens Council by BMT WBM, dated 21 September 2011 (Exhibit D)

(o) Kings Hill Urban Release Area Water Management Strategy Guidelines by BMT WBM, dated 16 September 2019 (Exhibit D)

(p) Hunter Regional Plan 2026 by Department of Planning and Environment, dated October 2016 (Exhibit D)

(q) Planning for Bush Fire Protection. A Guide to Councils, planners, authorities and developers by NSW Rural Fire Service, dated November 2019 (Exhibit D)

(r) Grahamstown/Raymond Terrace Water Servicing Strategy. Servicing Options Analysis by Hunter H20, dated March 2022 (Exhibit D)

(s) Lower Hunter Water Security Plan by Department of Planning and Environment, dated April 2022 (Exhibit D)

(t) Report on Geotechnical Investigation. Proposed Residential Development Kings Hill Raymond Terrace by Douglas Partners, dated November 2020 (Exhibit D)

(u) NSW Koala Monitoring Framework. A Statewide cross-tenure framework to monitor Koalas by Department of Planning, Industry and Environment, dated July 2021 (Exhibit D)

(v) NSW Koala Strategy. Towards doubling the number of Koalas in NSW by 2025 by Department of Planning and Environment (Exhibit D)

(w) Koala habitat restoration guidelines. A practical guide to identify, connect and restore Koala habitat in NSW by Department of Planning and Environment, dated March 2022 (Exhibit D)

(x) Port Stephens Comprehensive Koala Plan of Management (CKPoM) by Port Stephens Council, dated June 2002 (Exhibit D)

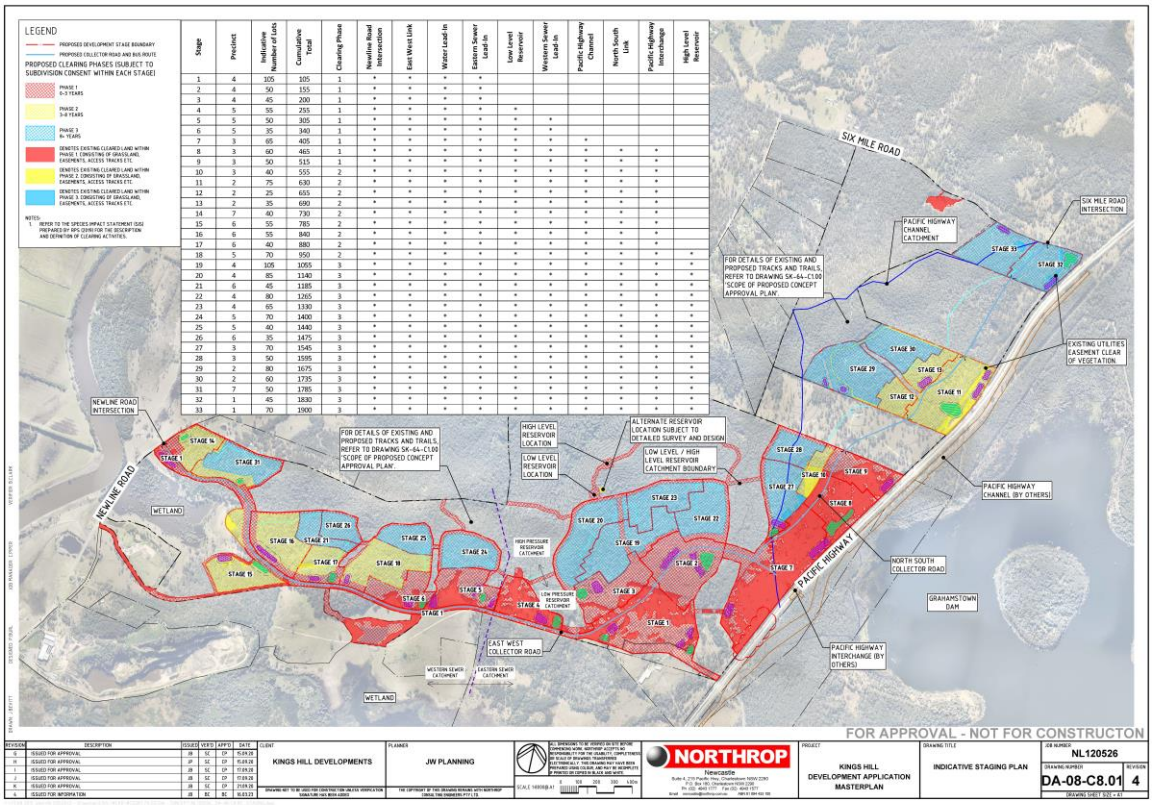
(y) Threatened species assessment guidelines. The assessment of significance. Department of Environment and Climate Change NSW (the DECC guidelines, Exhibit D).

Stage 1 works

111 Further to the documents outlined above, there are a suite of documents that inform the Stage 1 works, as follows:

- The SIS responds to the CER's, it describes baseline data and outlines the ameliorative measures to avoid and mitigate adverse impact to threatened species, populations and ecological communities on the site.
- A BMS prepared by RPS, dated 16 March 2023 (Exhibit R) provides the overall management framework and integrates the various ecological focused plans, described above.
- A BMP, prepared by RPS, dated 16 March 2023 (Exhibit P) provides the management framework to implement the ameliorative measures to enhance and maintain the CA, to be started 2 years prior to the start of the clearing of the impact area and will take 5 years to establish the CA.
- VMP, prepared by RPS, dated 16 March 2023 (Exhibit Q), consistent with Section D14.33 of the PSDCP, provides the framework for clearing of the impact area, conducted over a period of at least 8 years and up to 18 years, in three phases as shown in the indicative staging plan.
- A Biodiversity Conservation Area Management Plan (BCAMP), prepared by RPS supports the Council Voluntary Planning Agreements (VPA) and provides a framework for Council to manage and monitor the CA in-perpetuity.
- A Trigger Action Response Plan (TARP), prepared by RPS that provides a framework to ensure ongoing review and adjustment of the environmental measures.

112 The indicative staging plan for Stage 1 works is described in Figure 2 (2a and 2b).



Stage	Precinct	Indicative Number of Lots	Cumulative Total	Clearing Phase	Newline Road Intersection	East West Link	Water Link In	Eastern Sewer Link In	Low Level Reservoir	Western Sewer Link In	Pacific Highway Channel	North South Link	Pacific Highway Interchange	High Level Reservoir
1	4	105	105	1	*	*	*	*						
2	4	50	155	1	*	*	*	*						
3	4	45	200	1	*	*	*	*						
4	5	55	255	1	*	*	*	*	*					
5	5	50	305	1	*	*	*	*	*	*				
6	5	35	340	1	*	*	*	*	*	*				
7	3	65	405	1	*	*	*	*	*	*	*			
8	3	60	465	1	*	*	*	*	*	*	*	*	*	
9	3	50	515	1	*	*	*	*	*	*	*	*	*	
10	3	40	555	2	*	*	*	*	*	*	*	*	*	
11	2	75	630	2	*	*	*	*	*	*	*	*	*	
12	2	25	655	2	*	*	*	*	*	*	*	*	*	
13	2	35	690	2	*	*	*	*	*	*	*	*	*	
14	7	40	730	2	*	*	*	*	*	*	*	*	*	
15	6	55	785	2	*	*	*	*	*	*	*	*	*	
16	6	55	840	2	*	*	*	*	*	*	*	*	*	
17	6	40	880	2	*	*	*	*	*	*	*	*	*	
18	5	70	950	2	*	*	*	*	*	*	*	*	*	*
19	4	105	1055	3	*	*	*	*	*	*	*	*	*	*
20	4	85	1140	3	*	*	*	*	*	*	*	*	*	*
21	6	45	1185	3	*	*	*	*	*	*	*	*	*	*
22	4	80	1265	3	*	*	*	*	*	*	*	*	*	*
23	4	65	1330	3	*	*	*	*	*	*	*	*	*	*
24	5	70	1400	3	*	*	*	*	*	*	*	*	*	*
25	5	40	1440	3	*	*	*	*	*	*	*	*	*	*
26	6	35	1475	3	*	*	*	*	*	*	*	*	*	*
27	3	70	1545	3	*	*	*	*	*	*	*	*	*	*
28	3	50	1595	3	*	*	*	*	*	*	*	*	*	*
29	2	80	1675	3	*	*	*	*	*	*	*	*	*	*
30	2	60	1735	3	*	*	*	*	*	*	*	*	*	*
31	7	50	1785	3	*	*	*	*	*	*	*	*	*	*
32	1	45	1830	3	*	*	*	*	*	*	*	*	*	*
33	1	70	1900	3	*	*	*	*	*	*	*	*	*	*

Figure 2a

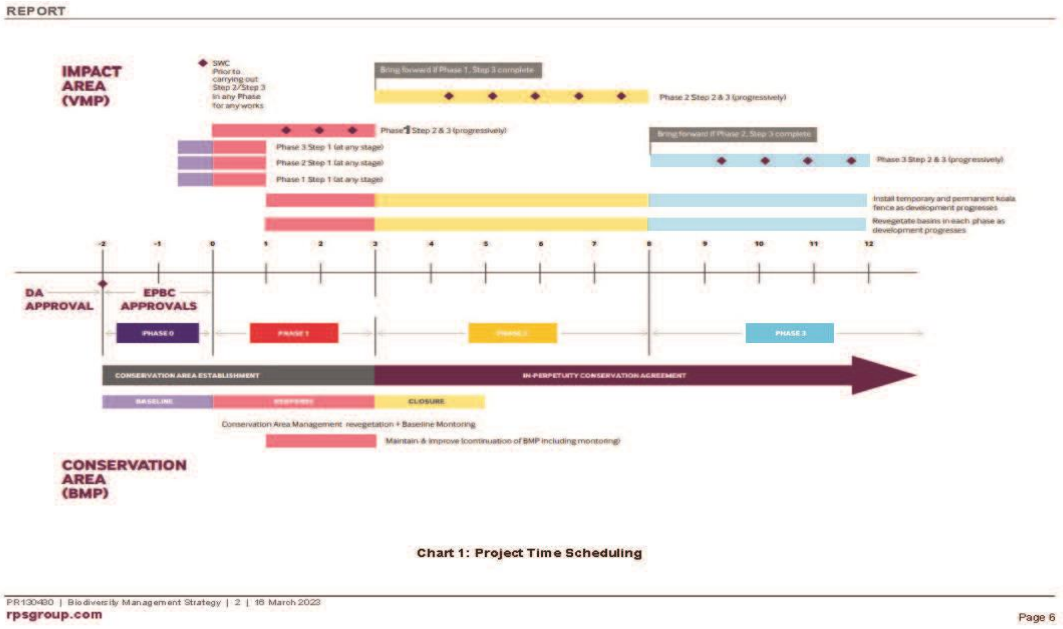


Chart 1: Project Time Scheduling

Figure 2b

Voluntary Planning Agreements

113 The applicants have entered into a VPA executed with the Minister for Planning and Public Spaces, Roads and Maritime Services (RMS), hereafter the State VPA, tendered in Exhibit 5. It places certain requirements on the applicant as the 'developer' of the site and specifies designated State public infrastructure that is required to support and service the KHURA.

114 The State VPA describes a requirement for the dedication of a minimum 2 ha (maximum 3 ha) for a future (primary) school site. This school is required after the creation of the 900th dwelling in the KHURA. Figure DAD in Section D14 of the PSDCP outlines the site of a future school, proposed in precinct 4. The concept proposal indicatively shows a future school site centrally located in precinct 4.

115 The State VPA also provides a funding arrangement, with no commitment, for the design and delivery of the PH interchange to ensure safe entry to the site through precinct 3, and a stormwater drainage channel to manage overland flow.

116 The applicants submit that the State VPA goes in part towards addressing the requirements of cll 6.2, 6.5, 6.6 and 7.6 of the PSLEP, although do not rely on addressing cl 6.1, as no subdivision is sought.

117 This perceived achievement and relevance of provisions of the PSLEP is disputed by the Panel, due to an assessed uncertainty in the design and location of the designated State infrastructure. Council remains silent on this issue and defers to the Panel. I address this issue later in the judgement.

118 Once the CA is established according to the BMP, the CA will be handed over by agreement to Council, with the expectation that this area will be managed in-perpetuity, consistent with an as yet unsigned VPA between the applicants and Council (hereafter the Council VPA). It is understood that the granting of consent of this application would trigger the parties to enter into the Council VPA. The application seeks that after approximately 5 years of enhancement, when performance targets are met, the Council VPA will be extinguished and the CA will be registered on title to Council, with future management of the CA, described in the BCAMP.

119 It is understood that the cost of establishing/enhancing the CA is borne by the applicants (or future landowner) prior to Council handover, and the cost of ongoing management of the CA, is then borne by Council. The allocation of long-term costs associated with the CA are set out in the Council VPA and are agreed by the experts as being sufficient although not extensive, having no regard to the ongoing Koala fence management.

Experts

120 The Court was provided with written and oral evidence from experts in the following areas of expertise:

(1) Engineering including geotechnical, flood and stormwater
(2) Ecological buffers
(3) Native fauna including Koala, Phascogale and Babbler
(4) Native flora, including Orchids and
(5) Planning
(6) Wetland
(7) Acoustics
(8) Bushfire
(9) Silviculture and Costings

121 The experts that provided evidence across a range of the above areas of expertise, include:

- Messrs Paul Grech, Paul Mitchell, John Russell, David Reynolds, Ali Naghizadeh, Martin Davenport, Stephen Gauld, Michael Somerville, John Clulow, Mark Aitkens, Steve Dobbyns, Travis Peake, Adam Cavallaro, Bob McCotter, Wayne Tucker and Lew Short.
- Mses Geordie Galvin and Louise Collier.
- Drs Stephen Bell, Mathew Crowther, AnneMarie Clements, Rhidian Harrington, Ben Moore, Daniel Martens and Phil Lacy

122 It is noted that several of these experts provided written and oral evidence that addressed multiple areas of the expertise listed above.

123 The joint expert reports, separated by expertise, are provided in Exhibit 8, and the single expert reports for the Panel and applicants, are provided in Exhibits 7 and C, respectively. Council relies on the expert reports submitted by the Panel.

Resident submissions

124 In response to notification of the original application (between 6 June to 4 July 2019) and renotification (between 18 March to 2 April 2020, and 11 November to 16 December 2022) of the amended application, consistent with the PSDCP, the Council received 13, 8 and 13 submissions, respectively from residents and community groups.

125 The written submissions of all objectors and supporters are tendered in evidence (Exhibit 5), and have been considered by the Court in assessment of the application. The issues raised in objection generally align with the contentions raised by the Panel, and those in support focused on the potential for positive cultural outcomes derived by the establishment of the CA.

126 At the start of the hearing, six (6) persons provided oral submission to the Court, which are summarised in Exhibit 2R1, and have also been considered by the Court. Of these submissions, five were in objection, being from residents and local community groups, and one in support, being from the Worimi Local Aboriginal Land Council.

Is there a significant effect to threatened species, populations and ecological communities resulting from the proposed development?

127 A key contention of the Panel is that the application, and specifically the conceptual dimension of the CA and the Stage 1 clearing works, are likely to result in unacceptable impacts to threatened species identified on and associated with the site. The basis for this contention is that the application is not informed by appropriate impact assessments of native flora and fauna, and therefore the determination of the significance of effect on threatened species is not reasonable.

128 As explained previously, based on the date that the application was submitted to Council, select provisions of the TSC Act and former provisions of the EPA Act are a relevant consideration by the Court.

129 The application relies on a SIS, prepared in response to the issued CER's, and made pursuant to s 111 of the TSC Act. The SIS identifies several endangered and vulnerable ecological communities and species, as listed in Schs 1 and 2, respectively of the TSC Act. There are no endangered populations identified on

the site, pursuant to Sch 1 of the TSC Act. The proposed clearing is listed as a key threatening activity, pursuant to Sch 3 of the TSC Act.

130 The SIS is relied on by the application to assess the significance of effect to identified endangered and vulnerable ecological communities and species, consistent with (repealed) s 5A of the EPA Act. The application in adopting this approach, seeks to avoid, minimise and ameliorate (mitigate) any potential impact through the design of the concept proposal, as shown in the proposed precinct plan (Figure 1), and actions of the Stage 1 works, as described in the BMP and VMP.

131 Pursuant to s 5A of the EPA Act, the Court must consider the application on its merits and make an assessment as to whether there is a significance of effect to native species and habitats associated with the site, resulting from the (design and actions of the) application. Any impact resulting from future development of the site is not a relevant consideration of the Court, pursuant to s 4.22(5).

132 It is accepted that the proposed boundary of the CA generally adopts the area zoned as C2, pursuant to cl 2.3 of the PSLEP, and includes areas that extend beyond this zone, identified as R1 and E2 zones. The ecological assessment described in the SIS is based on this proposed CA boundary. The retention of the area zoned primarily as C2 plus some additional other zoned lands, that include the riparian corridors for conservation purposes in the CA, is relied on by the application as being a key impact avoidance measure for all assessed native species and communities.

133 The SIS considers that any adverse impact to native species/habitats resulting from the application is generally confined to the impact area, and that this impact can be mitigated by the Stage 1 works that enhance the CA. This approach seeks to address any significance of effect to ensure the viability of local populations, as required in s 5A(1) of the EPA Act.

134 The Stage 1 works described in the application include the clearing of the impact area to create the development footprint for the precincts, and also revegetation/rehabilitation measures that establish the CA. It is accepted that the clearing of the entire impact area is sought for consent by the application.

135 It was explained to the Court that the proposed clearing is to be undertaken in stages, phases and steps, which are time bound and in part reliant on future development applications for the precincts, as described in Figure 2.

136 The proposed schedule for the enhancement of the CA, relative to the clearing of the impact area, is relied on by the application as a key impact minimisation measure to address impact to native flora and fauna associated with the site.

137 The Stage 1 works are intended to be sequenced to encourage the movement of native fauna from the impact area into an enhanced CA (and beyond), and also facilitate the growth/retention of native flora and fauna within the CA. As described in the BMS, the CA related works outlined in the BMP will be initiated first (identified as Phase 0), and then based on baseline/ongoing monitoring, the (clearing) works described in the VMP will commence in specified areas and times (Phases 1-3), approximately 2 years after Phase 0 starts. Works in the CA will be undertaken over an anticipated five-year period, coincident with the clearing of the impact area.

138 The VMP describes the process and actions to establish (through clearing) the development footprint of the precincts. The proposed clearing is to be undertaken in non-consecutive stages across the site, in timed phases with steps, that will be sequenced over a minimum of 8 years and up to an 18-year period. Generally, the sequenced stages are identified in spatially defined areas in each precinct, the phases are temporally defined actions in each stage, and the steps are sequential actions within each phase that are both spatially and temporally defined. This is a complex programming response seeking to address an assessed likelihood of impact to native flora and fauna resulting from the clearing of the impact area.

139 The application, through the Stage 1 works, adopts ameliorative/mitigation measures described in the SIS to address any assessed adverse impacts, which include: enable/restrict fauna access to CA with fencing; feral fauna management; fire (‘cool burns’); weed control; habitat enhancement; threatened flora protection; tree nutrient enrichment; and wetland protection.

140 The mitigative effect of these adopted measures are assessed in the SIS for each native species and community identified as associated with the site.

141 The BMP describes the actions to establish (and enhance) the CA to a condition that satisfies Council, and prior to being legally transferred to Council ownership, as set out in the Council VPA. The CA will thereafter be managed in perpetuity by Council, consistent with the BCAMP.

Assessment framework

142 The ecological focused consideration of the application seeks to address the requirements of s 5A (former) and s 4.15(1) of the EPA Act. It must assess the appropriateness and effectiveness of the adopted avoidance, minimisation and mitigation measures, and the reliability of the determination of the significance of effect on vulnerable and endangered species/communities, as described in the SIS. In my assessment, the SIS, BMS, BMP and VMP, are read together with other relevant documents that support the application and in consideration of the evidence of the experts.

143 It is recognised that the SIS is the primary document that informs the baseline assessment of the ecological conditions of the site. It defines the potential threats posed by the proposed development of the site, and specifically considers the concept design and Stage 1 works relied on by the application to avoid/minimise/mitigate any assessed impact. The SIS responds directly to the Director-General's requirements (DGR's), as outlined in the CER's.

144 The SIS that supports the application has identified and mapped the prevalence of numerous threatened flora and fauna species/population, and endangered ecological communities, through both survey and modelling across the site. The baseline identification and assessment of the significance of effect, relative to the individual number/population and their identified location across the site, was derived by adopting several different survey/modelling methods, including those described in the DECC guidelines, pursuant to s 5A(1)(b) of the EPA Act.

145 The SIS has sought to assess the significance of effect on native flora and fauna by undertaking what is referred to as a '7-part test' assessment, consistent with s 5A(2) of the EPA Act. In addition, and following joint expert conference, the application relies on supplementary 7-part test assessments, that are attached to the respective joint expert reports. The 7-part test

assessments consider the direct, indirect and cumulative impacts attributable to the proposed development of the site.

146 The 7-part test assessment seeks to answer the following questions, as posed in s 5A(2) of the EPA Act:

(a) in the case of a threatened species, whether the action proposed is likely to have an adverse effect on the life cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction,

(b) in the case of an endangered population, whether the action proposed is likely to have an adverse effect on the life cycle of the species that constitutes the endangered population such that a viable local population of the species is likely to be placed at risk of extinction,

(c) in the case of an endangered ecological community or critically endangered ecological community, whether the action proposed:

(i) is likely to have an adverse effect on the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction, or

(ii) is likely to substantially and adversely modify the composition of the ecological community such that its local occurrence is likely to be placed at risk of extinction,

(d) in relation to the habitat of a threatened species, population or ecological community:

(i) the extent to which habitat is likely to be removed or modified as a result of the action proposed, and

(ii) whether an area of habitat is likely to become fragmented or isolated from other areas of habitat as a result of the proposed action, and

(iii) the importance of the habitat to be removed, modified, fragmented or isolated to the long-term survival of the species, population or ecological community in the locality,

(e) whether the action proposed is likely to have an adverse effect on critical habitat (either directly or indirectly),

(f) whether the action proposed is consistent with the objectives or actions of a recovery plan or threat abatement plan,

(g) whether the action proposed constitutes or is part of a key threatening process or is likely to result in the operation of, or increase the impact of, a key threatening process.

147 Based on the results of the 7-part test assessment for each species/community, the SIS then determines the significance of effect on the identified threatened species/populations and endangered ecological communities, as a consequence of the application.

148 As part of this assessment, the SIS outlines possible impact avoidance, minimisation and ameliorative/mitigation measures, which in expert evidence to the Court, are understood to have been generally adopted by the application, as described in the concept proposal and Stage 1 works.

149 In the Court's consideration of the application, it is recognised that the experts do not agree that the SIS, and the adopted avoidance/minimisation/mitigation measures, are informed by accurate, sufficiently detailed or well-timed survey data, for a number of identified species. There remains uncertainty between the experts as to whether the baseline analysis in the SIS is effectively flawed for some species assessments, and that the results of the 7-part test assessment accurately assess the significance of effect on individual species and the likelihood of environmental impact.

150 To consider the significance of effect on threatened species/populations/communities associated with development on the site, pursuant to 5A of the EPA Act, and the likelihood of environmental impact, pursuant to s 4.15(1)(b) of the EPA Act, I must firstly address the accuracy of the baseline information relied on by the SIS, because it informs the results of the 7-part test assessment.

151 I thereafter consider the potential direct/indirect/cumulative impacts by understanding the effectiveness of the adopted avoidance/minimisation/mitigation measures relied on by the application. Based on this assessment, I consider the requirements of s 5A EPA Act, in addition to considering the relevant requirements of s 4.15(1) of the EPA Act.

152 The adopted avoidance measure to define a CA is assessed in the SIS as being (directly and indirectly) beneficial to all identified threatened species and ecological communities. The reliance on a sufficiently sized CA that enhances the existing C2 zoning boundaries seeks to: reduce edge effects associated with the development footprint (and future development) in the precincts;

provide suitable and sufficient habitat for native fauna/flora to thrive; and retain native vegetation along riparian corridors, to reduce habitat fragmentation and support fauna movement.

153 The adopted impact avoidance measure, namely the dimension of the CA, is designed to retain quality native habitat by avoiding the clearing of identified high-value breeding/seeding habitats; and provide appropriate buffer areas to future development in the precincts.

154 The dimension of the CA as an adopted avoidance measure is generally appropriate for most native species, except where detailed later.

155 I note that this avoidance measure is generally self-limiting in its effect because clearing, as a key threatening activity, is not generally permissible on C2 zoned land or within the designated riparian corridors, as agreed in oral evidence (below) by Mr Aitkin:

> "REID: And you would expect in the ordinary course, if we weren't talking about koalas, phascogales, or any of the plant communities, that an applicant would be unlikely to be developing in a riparian zone in any event.
>
> WITNESS AITKENS: Yeah, no, I wouldn't expect any development in those areas.
>
> REID: So it's not so much impact avoidance, even though it might have a consequential benefit, but the developer hasn't avoided impact in areas which they would never have been permitted to develop in the first place.
>
> WITNESS AITKENS: Yes. Yes. I believe - look, I could be corrected here, but I believe that the discrepancies you see there relate to the information that was available at the time of rezoning, and the way the rezoning was done, and then the more detailed information that was available, and where - and where riparian zones are actually.
>
> REID: And that's because at the time of the rezoning there really wasn't the same level of ecological investigation on the site that there is now?
>
> WITNESS AITKENS: That'd be fair to say, yes."

156 Therefore, whilst the dimension of the CA is generally appropriate, it alone is not sufficient to prevent adverse environmental impact or a significant effect to native flora and fauna associated with the site.

157 It is understood that the adopted impact minimisation and mitigation strategies relied on the application are imposed specific to addressing likely impact to individual species. Strategies adopted include: time sequenced clearing (over a minimum period of 8 years); replanting and enrichment of native species within

the CA; fencing to constrain predators and manage risky movements; and weed/feral animal management. Their appropriateness to address adverse impact is considered below, relative to each species/ecological community that remains in dispute.

158 Interspersed within the native vegetation across the site, are extensive areas of exotic introduced species (weeds), including Lantana (*Lantana camara*); African Olive (*Olea europaea*); and Blackberry (*Rubus fruticosus*). The SIS has identified and modelled an approximate extent of weed species across the site, which has informed the adopted mitigative action of weed control in the CA, as described in the BMP. The appropriateness of this action is not in dispute between the experts and is accepted by the Court as an appropriate ameliorative measure that will support other ameliorative measures proposed in the CA.

Endangered ecological communities assessment

159 The assessment of the significance of effect to endangered ecological communities resulting from the application, pursuant to s 5A(2)(c) of the EPA Act, is described in the SIS, and responds to DGR (6) of the CER's, below:

> "Assessment of likely impacts on ecological communities (endangered and critically endangered ecological communities)"

160 The ecological communities identified on the site are assessed as being either critically endangered (CEEC), endangered (EEC) or vulnerable (VEC), as follows:

- Freshwater Coastal Wetlands, Swamp Sclerophyll Forest and Swamp Oak Forest, all are EEC's, located primarily around the wetland (803) and the dammed area in the south;
- Lower Hunter Valley Dry Rainforest, an VEC, located in the proposed Conservation Area; and
- Lower Hunter Spotted Gum Ironbark Forest, an EEC, located in a low lying area in the east.

161 The SIS identifies native plant communities (PCT) distributed within these ecological communities across the site, including those belonging to:

(a) PCT 783, Coastal Freshwater Swamp of the Sydney Basin Bioregion, associated with wetland 803 in the west of the site, across 158.8ha, with 9.21ha preserved in the CA.

(b) PCT 1525, Sandpaper Fig – Whalebone Tree warm temperate rainforest, found in pockets in the north and west of the site, across 42.01ha, with 2.42ha preserved in the CA;

(c) PCT 1590, Spotted Gum – Broad-leaved Mahogany – Red Ironbark shrubby open forest, which dominates the site, across 572.93ha, with 108.83ha preserved in the CA;

(d) PCT 1584, White Mahogany – Spotted gum – Grey Myrtle semi-mesic shrubby open forest on the Central and lower Hunter Valley, which also is significant across the site, covering an area of 149.45ha, with 111.36ha preserved in the CA; and

(e) PCT 1600, Spotted Gum – Narrow-leaved Ironbark shrub – grass open forest on the Central and Lower Hunter, found in the south of the site, across 26.5ha, with 1.05ha preserved in the CA.

162 Mr Aitkens explained in oral evidence that PCT's 1590 and 1600 are known as a 'dry sclerophyll forest' and PCT 1584 is known as a 'wet sclerophyll forest', which becomes relevant later in the judgement.

163 The native vegetation mapped on the site is generally described as ranging from forested wetland, wetland, open forest and forest. There is a range of maturity in the forest flora, which the experts agree provides suitable foraging habitat and feed trees for fauna, with hollows, fallen logs and tree canopy supporting a range of native flora and fauna species associated with the site.

164 There is no dispute between the experts with regards to the reliability in mapping of the endangered ecological communities (EEC) across the site, as described in the SIS. The experts agree that the (7-part test) assessment of EEC's affected by the application, is reasonable and there is no assessed significance of effect or adverse impact resulting from the application to EEC's.

165 After consideration of the evidence and documents supporting the application under appeal, I am satisfied that there is no assessed significance of effect to EEC's identified and mapped on the site. Whilst I recognise that portions of EEC habitat will be removed by clearing of the impact area, the retention of EEC's within the CA, proposed weed/feral fauna control in the CA and the relative size of the CA, are appropriate and sufficient minimisation/mitigation measures to protect EEC's. The adopted physical and ecological buffers around the precincts, that separate future development in the precinct/roads

from the (EEC's in the) CA, will effectively reduce edge effects and the introduction of weeds/pests to the retained areas of EEC.

166 I am satisfied that the SIS sufficiently addresses the requirements of s 110(3) of the TSC Act, and DGR (6), as described in the CER's, pursuant to s 111(1).

167 The proposed clearing of the impact area, with respect to the EEC's mapped on the site, does not cause an increase of impact from this key threatening process, pursuant to s 5A(2)(g) of the EPA Act. I have considered the actual extent of the habitat to be removed, and whether the actions proposed by the application will cause an adverse effect on the critical habitat of the EEC's mapped on the site, pursuant to subss 5A(2)(c) and (e). I assess that the identified EEC's on the site will remain viable. The critical habitat for the EEC will not be substantially or adversely modified by the actions proposed in the application. In consideration of the relevant factors described in s 5A(2), I am satisfied that the EEC's identified on the site will not be significantly effected by the application, pursuant to s 5A(1).

168 There is no assessed adverse environmental impact to EEC's mapped on the site, pursuant to s 4.15(1)(b) of the EPA Act.

Threatened flora species assessment

169 The threatened flora species (7-part test) assessment described in the SIS responds to DGR (5), in the CER's, below, and relevant requirements of s 5A(2) of the EPA Act:

> "Assessment of likely impacts on threatened species and populations"

170 The SIS identifies three threatened flora species across the site, being the *Maundia triglochinoides* (Small Water-Ribbons); *Pterostylis chaetophora* (Taree Rustyhood Orchid); and *Corybas dowlingii* (Red Helmet Orchid). Pursuant to Sch 1 and 2 of the TSC Act, the Red Helmet Orchid is listed as an endangered species, and the Small Water-Ribbons and Taree Rustyhood Orchid are listed as vulnerable species, respectively.

171 The experts agree and the Court is satisfied based on the evidence, that the assessment of the Small Water-Ribbons species is appropriate, assessed as only being indirectly affected by the application, with no assessed significant

effect to this species, pursuant to s 5A(1) of the EPA Act. There is likely no adverse environmental impact to this species, pursuant to s 4.15(1)(b).

172 However, the accuracy of the baseline data, the mapped location and distribution of the other threatened orchid species, as described in the SIS, and therefore the determination of no significance of effect to these orchid species remains in dispute between the parties, as assessed below.

Taree Rustyhood Orchid

173 The Taree Rustyhood Orchid (*Pterostylis chaetophora*) is listed as a vulnerable species, pursuant to Sch 2 of the TSC Act.

174 According to the SIS, the Taree Rustyhood Orchid prefers habitats that are seasonally moist, within dry sclerophyll forest, often associated with Spotted Gum Ironbark Forest and frequently occur in disturbed habitats, such as the quarry located on the site and along tracks. The fungus that this species depends upon is often found in exposed areas of soil, associated with leaf litter and grasses.

175 This species occurs as a tuber, and has been mapped on the site, as shown in the SIS, located around the fringes of the quarry in the north of the site and a pocket of land in the east of the site. Individuals of this species mapped in the north of the site, around the quarry, are generally located within the CA, whereas the individuals mapped in the east of the site are generally within the impact area. Individuals of this species are currently adversely affected by the extensive weed growth across the site.

176 The geographic distribution of this species beyond the site is generally restricted to dry sclerophyll forest, associated with the Grahamstown Dam and Wallaroo National Park.

177 The experts dispute whether the survey data that forms the baseline assessment for the Taree Rustyhood Orchid is sufficient to accurately identify the actual extent of its critical habitat. I accept that the species surveys described in the SIS were undertaken consistent with the relevant DECC guidelines, as agreed by the experts at [26] of their expert report, Exhibit 8, tab 40.

178 The experts agree at [18] of their joint expert report that there is currently ‘ample’ critical habitat on the site for individuals (of this species) and its pollinators, including orchid bees and fruit flies. They do not agree however whether the CA provides sufficient ‘connectivity’ for the pollinators and seed dispersal. After consideration of the evidence, I accept the opinion of Dr Bell that the orchid pollinators have a relatively wide dispersal range, extending beyond the site (>20 km), and are unlikely to be adversely impacted by the application. The seed dispersal of this species is also unlikely to be detrimentally impacted, as it is expected to travel (on the wind) within the CA and beyond the site to other critical habitats of this species.

179 I accept the evidence of the experts that the removal of weeds from the CA and creation of maintenance trails in the CA are appropriate ameliorative measures that will support a habitat critical for this species.

180 The experts do not agree that the 7-part test, as assessed in the SIS and supplemented by Dr Bell in response to expert conferencing in the joint expert report (Exhibit 8, tab 40), correctly assesses that there is no significant effect to this species resulting from the application, pursuant to s 5A(1) of the EPA Act.

181 I understand that the critical habitat to support individuals of this species will be removed from the site due to the proposed clearing, including identified individuals of this species being located within the impact area. However, I am of the opinion that the local viable population of the Taree Rustyhood Orchid species will not be significantly effected by the application, pursuant to s 5A(1) of the EPA Act, after consideration of the relevant requirements of s 5A(2). The individuals of this species and critical habitat are prevalent across the CA and in the surrounding area, which is sufficiently connected to ensure the dispersal of pollinators and seed. I assess there will not be fragmentation of critical habitat resulting from the application, pursuant to s 5A(2)(d)(ii).

182 I accept the results of the 7-part test assessment, as provided in the SIS and relevant joint expert report (Exhibit 8) for the Taree Rustyhood Orchid. I find that, as a result of the application, there is unlikely to be a significant effect to the (survival of the) species and that the local population will remain viable, pursuant to subss 5A(1) and (2)(a) of the EPA Act.

183 I am satisfied that there is sufficient certainty in the assessment to identify the local viable population, and to be confident on the relative population size and location of individuals of this species on the site to determine the local viable population. I consider the results in the SIS provide a scientifically realistic representation of the presence of this species on the site.

184 The CA is sufficient in size to provide a reasonable area of critical habitat to avoid significant or adverse impact to this species, and the ameliorative measures adopted in the application, specifically those proposed in the CA, as described in the BMP, will support this species to survive.

185 I have considered the actual extent, connectivity and importance of the habitat to be removed, and assessed whether the actions proposed in the application would lead to an adverse effect to the critical habitat of the Taree Rustyhood Orchid, pursuant to subss 5A(2)(d) and (e) of the EPA Act. On this basis, I assess that the local population of this species will remain viable, pursuant to s 5A(2)(a). The critical habitat for this species will not be substantially or adversely modified by the actions proposed in the application or fragmented such that individuals of the species cannot be pollinated, pursuant to s 5A(2)(d). After considering the relevant factors described in s 5A(2), I am satisfied that the Taree Rustyhood Orchid species will be not significantly effected from the application, pursuant to s 5A(1).

186 I am satisfied that the SIS has addressed the requirements of s 110(2) of the TSC Act, and that the DGR (5) described in the CER's is sufficiently addressed, pursuant to s 111(1).

187 I am satisfied that the application does not cause adverse environmental impact to this species, pursuant to s 4.15(1)(b) of the EPA Act.

Red Helmet Orchid

188 The Red Helmet Orchid (*Corybas dowlingii*) is listed as endangered species, pursuant to Sch 1 of the TSC Act.

189 According to the SIS, the Red Helmet Orchid forms clonal colonies and typically grows in the gullies of tall open forest habitats, that have well drained soils, such as the White Mahogany and Grey Gum, both dry and wet

sclerophyll forests. The geographic distribution of this species is generally highly restricted, currently impacted on the site by extensive weed growth and feral fauna grazing.

190 This species has been mapped across the site occurring in both the CA and impact area, predominantly found in the eastern portion of the site. The experts dispute whether the survey data that forms the baseline assessment in the SIS is sufficiently accurate to identify the actual extent of critical habitat for this species. The relevant species surveys described in the SIS (undertaken in 2018) were supplemented by later studies (undertaken in 2021), which identified additional critical habitat (and individuals) in the north-east of the site.

191 The experts agree that surveys for this orchid species are likely to underestimate the total population size due to the difficulty in detecting the plant on the ground, its size and externally controlled factors such as climate. The experts do not agree that the modelling showing critical habitat in the SIS is sufficiently accurate to define the individual species locations.

192 I accept the statement in the Red Helmet Orchid joint expert report at [22], Exhibit 8, tab 39, that states “there has been an imbalance in the targeted survey effort … undertaken across the Project Area, leading to uncertainty in the numbers of individuals present within development and conservation areas”. The extrapolated difference in the potential impact to individuals of this species between the surveys done in 2018 and 2021 is significant. I understand that seasonality, climate and flowering are factors that influence the detection of this species, which is not in dispute between the experts.

193 Further to the dispute over the accuracy of the survey results and mapping of species, the experts do not agree that sufficient avoidance or ameliorative measures have been adopted in the application, to have confidence that there will not be a significant effect or adverse impact on this species.

194 The experts disagree on whether the ground disturbance associated with the clearing of the impact area would result in a net adverse effect on the species. Whilst they agree that this species commonly occurs in disturbed grounds, the certainty of impact in response to the extent of clearing of suitable habitat, the potential to change the habitat of pollinating fungus gnats associated with this

species and the effectiveness of seed dispersal, is not agreed between the experts. The need for further monitoring and assessment as a requirement to better assess impact to this species is also not agreed.

195 Based on this division of opinion, the experts are not agreed on the extent of the local viable population for this species or the significance of effect resulting from the application. The potential impact, as explained to the Court, relates to the extent of individuals and critical habitat lost for this species and its pollinators; and the possibility that the retained CA and future residential habitat will be insufficient in quality to support the species in the future.

196 Based on the 2018 survey results and modelling, the SIS assessed through the 7-part test, that the local viable population of this species is not significantly affected by the application because any impacts from the clearing are sufficiently managed through the protection of critical habitat in the CA and the pollinator connection to suitable habitat beyond the site, including in the Wallaroo and Columbey National Parks.

197 Dr Stephen Bell undertook an additional 7-part test assessment, provided in Exhibit 8, tab 39, in response to expert conferencing, where he considered the survey results of both 2018 and 2021. His assessment results are similar to those derived in the SIS.

198 I accept the results of the 7-part test assessments for the Red Helmet Orchid, being that there is unlikely to be an adverse effect to the survival of this species, or significant effect to the local viable population. Survey detection of the species is notoriously difficult, however, I am satisfied that the assessment of this species which relies on survey results for two points in time, seasonality and climate effect (drought and wet period), demonstrates a realistic range of the potential variability in the detection of the Red Helmet Orchid across the site.

199 I am satisfied that there is sufficient certainty in the assessment of the local viable population, and confidence in the population size and location of individuals of this species that make up the local viable population. The discrepancy between the surveys done in 2018 and 2021, which may be perceived as giving rise to uncertainty of the data, I however consider provide a

scientifically realistic range for the species presence on the site, which responds to seasonal/climatic factors. I accept that this species is also prevalent, although statistically not verified, in surrounding areas where the habitat is suitable.

200 I am satisfied that the proposed CA will provide an appropriate habitat to avoid significant loss of the species. The application supports appropriate ameliorative measures that will enhance the habitat in the CA, to enable the species to survive.

201 I have considered the actual extent, connectivity and importance of this species habitat to be removed, and whether the actions proposed in the application will cause adverse effect on critical habitat of the Red Helmet Orchid, pursuant to subss 5A(2)(d) and (e). I assess that the local population of this species will remain viable, pursuant to s 5A(2)(b). The critical habitat for this species will not be substantially or adversely modified by the actions proposed in the application, pursuant to s 5A(2)(c). In consideration of s 5A(2), I am satisfied that the Red Helmet Orchid species will not be significantly effected from the application, pursuant to s 5A(1) of the EPA Act.

202 I am satisfied that the SIS addresses the requirements of s 110(2) of the TSC Act, and the DGR (5) described in the CER's is sufficiently addressed, pursuant to s 111(1).

203 I am satisfied that the application does not cause adverse environmental impact to this species, pursuant to s 4.15(1)(b) of the EPA Act.

Threatened fauna species assessment

204 The threatened fauna species assessment in the SIS responds to DGR (5) as described in the CER's, below, and relevant questions posed in s 5A(2) of the EPA Act:

> "Assessment of likely impacts on threatened species and populations"

205 The SIS has identified numerous threatened and vulnerable fauna species associated with the site, pursuant to Sch 1 of the TSC Act, including the:

- Glossy-black Cockatoo;
- Brown Treecreeper;

- Varied Sittella;
- Little Lorkeet;
- *White-bellied Sea Eagle*;
- ***Grey-crowned Babbler***;
- *Powerful Owl*;
- ***Koala***;
- ***Brush-tailed Phascogale***;
- *Grey-headed Flying Fox*;
- *Eastern Bentwing-bat*;
- *Little Bentwing-bat*; and
- *Eastern Freetail-bat*.

206 The species shown in italics above have been assessed in the SIS as potentially adversely impacted by the application. However, the SIS considers that there is likely no significance of effect to the survival of all fauna species assessed, due to the adoption of species appropriate minimisation and mitigation measures, as described in the application.

207 The experts remain in dispute with regards to the potential for adverse impact and significance of effect to several of these species, including the Koala, Brush-tailed Phascogale and Grey-Crowned Babbler. The dispute primarily relates to the appropriateness of survey methods adopted in the SIS to inform the baseline data, and therefore identification of the local viable population. This is in part due to differences in opinion on the appropriate dimension of the 'study area' for each of these species.

208 The remaining species listed above are agreed as accurately assessed in the SIS, which I accept. These species are assessed as not being adversely impacted or significantly effected by the application, pursuant to subss 5A(1) and (2) of the EPA Act.

209 A 'study area', relevant to the 7-part test assessment, is defined in the DECC guidelines. These guidelines provide a reasonable framework from which to undertake the 7-part test assessment, and are consistent with that described in subss 5A(1)(b) and (3). The DECC defines 'study area' as follows:

> **"Study area** means the subject site and any additional areas which are likely to be affected by the proposal, either directly or indirectly. The study area should extend as far as is necessary to take all potential impacts into account."

210 Consistently, in *Ryan v Northern Regional Planning Panel (No 4)* [2020] NSWLEC 55, Justice Pain at [153-155] had regard to the meaning and intent of 'subject site', 'study area' and 'local population' for the purposes of assessing s 5A(2) of the EPA Act, described as follows:

> "[153] Turning to the matters in s 5A(2)(a) and (d), when BT Goldsmith was determined in 2005 s 5A(c) (predecessor to s 5A(2)) stated that whether a significant area of known habitat was to be modified or removed was to be assessed in relation to the regional distribution. No guidelines for assessment as referred to in s 94A of the TSC Act were then in place. Section 5A(2) introduced on 31 October 2005 refers to "viable local population" in subs (a). Subsection (d) refers to locality which is defined in the TSCA Guidelines by reference to local population of a species (p 27 of this judgment). The introduction in the TSCA Guidelines issued in August 2007 refers to the shift to assessment of significance based on local rather than regional impacts due to long-term biodiversity loss because of the accumulation of losses and depletions at a local level (see p 25 of this judgment). The focus on local impacts was also identified in Tumblebee at [113].
>
> [154] Concerning s 5A(2)(a) and (d), one important matter to resolve in determining whether the proposed development on the Land is likely to have a significant effect on threatened species, populations or their habitats is the appropriate approach to the TSCA Guidelines, as informed by the ecological evidence, in relation to "study area", "local population" and "locality" in the circumstances of this case. These terms appear in these subsections and are defined in the TSCA Guidelines extracted in [32] above. "Subject site" is "the area directly affected by the proposal". "Study area" is "the subject site and any additional areas which are likely to be affected by a proposal, either directly or indirectly. The study area should extend as far as necessary to take all potential impacts into account." "Direct impacts" and "indirect impacts" are also defined. All impacts identified are adverse. In relation to fauna species the local population comprises "those individuals known or likely to occur in the study area, as well as any individuals occurring in adjoining areas (contiguous or otherwise) that are known or likely to utilise habitats in the study area". "Locality" has the same meaning as local population of a species.
>
> [155] The TSCA Guidelines are not statutory instruments and precise construction may not necessarily be required. In this case the definitions are clear on their terms, give rise to no ambiguity and should be applied."

<u>Koala</u>

211 The Koala (*Phascolarctos cinereus*) is listed as a vulnerable species, pursuant to Sch 2 of the TSC Act, although was listed as endangered on 12 February 2022, pursuant to the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). This recent EPBC listing replaces the previous EPBC Act and TSC Act listing of vulnerable for the Koala species.

212 It was explained to the Court that the CA is intended to support the connection of lands zoned C2 across the KHURA, that will form a coordinated and well managed tract of conservation land, connecting the habitat of the Kings Hill Koala Hub and the Grahamstown West Koala Hub, with the regional Koala hub. The SIS identifies the Koalas on the site as being part of the Port Stephens (2) genetic cluster, that is genetically connected beyond the site for up to 200 km to the north, with a high genetic diversity.

213 The SIS considers the 'study area' for the Koala as connecting the separated portions of critical habitat on the site, extending south to include Wetland 804. This is relevant in determining the local viable population.

214 It is recognised by the experts that the home range of Koalas identified on the site, particularly the males, is well beyond the defined study area and the Kings Hill Koala Hub, extending up to the Wallaroo National Park, which forms part of a regional Koala Hub.

215 The SIS relies on numerous previous studies and recent surveys (including from 2018 and 2019) to identify the location of Koala individuals and the critical habitat of Koalas within the study area. The observed locations of individual Koalas on the site and their critical habitat are described as being distributed widely across the CA and impact area. The experts do not dispute this assessment and I accept their opinion, based on the evidence before the Court.

216 It was explained in the SIS and by the experts that Koalas generally prefer open eucalypt forest and woodland. Koalas are known to prefer PCT's 1584 and 1590, which have been identified across the site. They utilise primary, secondary and supplementary tree species. Koalas are also known to utilise the riparian corridors for refuge and movement between their habitat and to cross their home range.

217 The experts agree that the site is currently degraded with respect to critical Koala habitat, due to a long history of logging and grazing, weed extent, and feral animal prevalence. They also agree that the removal of these threats would promote opportunity for this species to thrive, and is an appropriate mitigation measure.

218 The mapped location and modelled extent of the primary Koala food trees (PKFT's) is described in the SIS as being predominantly located within the CA. The SIS explains that the shape and size of the CA seeks to avoid the removal of 216.37ha of (Koala) habitat (specifically PKFT's). The experts dispute the areal extent of critical Koala habitat that will be cleared.

219 Whilst the experts agree that the SIS has adopted three appropriate approaches to habitat mapping for this species, the consistency of the approaches applied across the site is questioned by Dr Moore as potentially causing an overestimation of critical Koala habitat located within the CA and a deficiency of loss of habitat in the impact area.

220 The experts agree that it is the protection of critical habitat supporting female (breeding) Koalas on the site and within the study area that is paramount to the survival and viability of the local Koala population, consistent with s 5A(2)(b) of the EPA Act.

221 The SIS suggests that up to half of the suitable foraging and feeding habitat on the site, being critical habitat to this species, would be adversely impacted by the application, due to the clearing of the impact area. To address this impact, the SIS considers adoption of appropriate ameliorative/mitigation measures. The application relies on the ameliorative measures assessed in the SIS, which primarily propose to enhance the remaining critical habitat in the CA, with the aim to maintain the local viable population. These measures are described in the BMP and VMP.

222 The ameliorative measures adopted in the application seek to address the loss of critical Koala habitat on the site, due to the clearing of the impact area, and include: fencing around the CA; weed and feral fauna management in the CA; targeted replanting in the CA, including the current treeless lands and around Wetland 803; and a 'tree canopy nutrient enrichment' initiative to improve the quality of the existing suitable habitat in the CA.

223 The 7-part test assessment in the SIS concludes that based on the adoption of the avoidance, minimisation and ameliorative measures there is unlikely to be a significance of effect to the species or adverse impact to the viability of the

local population in the defined study area. This assessment is disputed by Dr Moore and remains in contention between the experts.

224 The experts do not agree whether there is a sufficient ‘connectivity’ of lands with critical (and suitable) habitat that extends beyond the Kings Hill Koala Hub through to the regional Koala Hub, including the Wollombi National Park. The experts also do not agree that the presumption of habitat connectivity to the broader reaches of the Kings Hill Koala Hub is relevant to the definition of the study area, which is a foundational consideration in the assessment of adverse effect to the local viable population, pursuant to s 5A(2)(b) of the EPA Act. They disagree whether there has been an appropriate assessment in the SIS to define the local viable population in the study area.

225 Further to this, the experts dispute whether the adopted ameliorative measures are sufficient to address adverse effect to the local viable population or ensure the species is not at increased risk of extinction. The effectiveness of these measures with regards to the timing of the proposed clearing of the impact area remains in contention.

226 I adopt the definition in the DECC guidelines for a ‘study area’ to consider the 7-part test assessment for the Koala species relied on by the application, pursuant to the requirements of s 5A(2) of the EPA Act. I assess that the local viable population includes the site and extends to include the McCloy land and Gwynville land, directly adjoining the site. The study area is limited, in my assessment, to the areas that are directly and indirectly impacted by the application.

227 In consideration of the evidence, I form the opinion that the assessment of the local viable population should be assessed consistent with the study area adopted in the SIS. This area does not include the full extent of the regional Koala Hub, as posed by Dr Crowther.

228 I accept that the study area, relevant for the 7-part assessment, is different from the home range of Koalas associated with the site, which extends through to the regional Koala Hub. Whilst I recognise that individual Koalas, particularly the males, will roam widely, the evidence before me suggests that the females prefer to remain relatively close to their breeding and foraging habitat, which is

defined within the study area. The experts agree that the habitat utilised by the females is paramount to the survival of the species, consistent with assessing s 5A(2)(b) of the EPA Act. It was explained that the females are the most vulnerable to adverse effect due to their likely more constrained movements.

229 The experts dispute whether Koalas associated with the site, particularly the males, will move through their home range without significant risk, dispersing via the riparian corridors, and across roads and the adjoining residential zoned lands.

230 I understand from the evidence of the experts that Koalas are very territorial (particularly when not breeding).

231 Based on the carrying capacity of the land, estimated at 0.4-1.5 Koalas per hectare, I accept that the CA is of a sufficient size to achieve this carrying capacity. There is no dispute that the CA has sufficient area to sustain the local viable population of Koalas, however, there remains uncertainty as to whether Koalas will utilise the enhanced habitat of the CA in a timely manner, rather than prefer to stay in the impact area or take unacceptable risks to move beyond the site and study area. I understand that the application does not rely on forced relocation of individual Koalas from the impact area, which the experts agree is not preferred.

232 It is accepted that the site provides critical habitat required for the viability of the local population of this species. The site forms a substantial part of the Kings Hill Koala Hub. Therefore, it is accepted that there needs to be a reasonable level of certainty that the appropriate ameliorative measures adopted in the application are effective for their purpose. These measures need to be in place in a timely manner to ensure that the critical habitat in the CA is suitable and preferred for the Koala (and other) species, when the species needs it.

233 The broader study area (beyond the site) has known risks to Koalas, including from residential development, predation and roads. Preservation of the Koalas on the site is accepted as paramount to sustaining the local population.

234 Apart from being generally consistent with the (C2) conservation zoning of the land, which is accepted as an appropriate avoidance measure, the application primarily relies on the minimisation and mitigation of adverse impacts resulting from the clearing of the impact area, as explained in the excerpt from the oral expert evidence transcript, below:

> "REID: What do you understand the requirement of "minimised" to require?
>
> WITNESS AITKENS: So there will be an impact, for instance, in the areas of bridge crossings, but we can reduce the amount of clearing in those areas and therefore retain features that can still be utilised. Of course, it's modified. The SIS does conclude - sorry, it assumes that it will be all cleared, but through the - through, say, detailed design, and as demonstrated in the fauna connectivity report, there is - there are structures proposed that will alleviate the amount of clearing required, and so minimise impacts by retaining understory, for instance, and retaining connectivity.
>
> REID: You don't minimise some of the impacts; you minimise as best you can, don't you?
>
> WITNESS AITKENS: Of course.
>
> REID: And minimising as best you can would be to identify the vegetation within those precincts that could be retained.
>
> WITNESS AITKENS: As I said, I don't understand what the final land form would look like, and it - I didn't have the ability to define what could be retained under a development scenario in the urban precincts.
>
> REID: And that's where you're really constrained by those instructions from your client, because this the broader concept that they wish to achieve at this point.
>
> WITNESS AITKENS: Yeah. As I said, it was a concept development application. If there was more detail, then yes, we could have had those conversations.
>
> …
>
> ROBERTSON: Mr Aitkens, you were asked a question by my friend about the reasons why the impact avoidance areas that you had proposed were adopted by the client, and it was put to you that there may have been engineering reasons why they were adopted. And I think you said that you didn't know about the engineering matters that might have informed the design of the development.
>
> WITNESS AITKENS: So, at the time of the recommendation being made, I wasn't aware of the engineering issues, no.
>
> ROBERTSON: All right.
>
> WITNESS AITKENS: If there were any.
>
> ROBERTSON: So you don't know if there were or weren't?
>
> WITNESS AITKENS: No.

ROBERTSON: And you made a recommendation and it was either accepted or rejected, is that how it happened?

WITNESS AITKENS: That's how it's happened, yes.

ROBERTSON: Okay, thank you. And your recommendations weren't for engineering reasons?

WITNESS AITKENS: Absolutely not.

REID: But your recommendations would have had a lesser effect on the species and plant communities that you're assessing under the species impact statement?

WITNESS AITKENS: I'm not sure if I understand that question.

REID: Your recommendations for avoidance would have had a lesser effect on the species and populations?

WITNESS AITKENS: Yes. So, the - the reduced uptake of - of recommended avoidance had meant that there was obviously a - an increased impact as a consequence. Yes. And I, as I mentioned earlier, there was also a focus on increasing the mitigation measures.

REID: And those avoidance areas were alternatives to the development that we've got before us, today?

WITNESS AITKENS: The avoidance areas, ultimately, shaped what we currently now see before the Court for a development area.

REID: Less the additional areas that weren't accepted in your advice?

WITNESS AITKENS: That's right, yes.

REID: And the areas that weren't accepted would have been an alternative with a lesser impact on the habitat?

WITNESS AITKENS: Naturally, yes, because you're clearing less habitat.

REID: And did you undertake any assessment acknowledging you haven't undertaken the engineering assessment, but any assessment as to whether they were feasible alternatives?

WITNESS AITKENS: Feasible alternatives? I'm not sure if I understand. The - so, the recommendations were made, they weren't accepted, and then the final development footprint was formulated.

REID: Yes, so you made recommendations. When you made those recommendations and you had the interaction with the client, did you undertake any assessment as to whether those alternatives, with the additional avoidance areas, were feasible alternatives?

WITNESS AITKENS: Are you suggesting that the - the full extent of impact avoidance was required to - to form a view?

REID: I'm just asking you whether the recommendations that you made to your client, which were not accepted, that you made any assessment as to whether they were feasible alternatives for the site?

WITNESS AITKENS: Feasible alternatives, for what?

REID: For development of the site.

> WITNESS AITKENS: I had to accept they were going to be developed and they were assessed as developed. The areas that weren't accepted for impact avoidance, I then had to accept that they were going to be developed.
>
> REID: Okay, you didn't undertake any inquiry as to why that wasn't accepted?
>
> WITNESS AITKENS: I - I, look, I did, verbally, yes. And there were - there was mentioning of - of lot yields and - and some engineering constraints, and - and the like."
>
> Transcript, 1 March 2023, pp 553 - 559 (18 – 1)

235 Dr Crowther considers that based on the ameliorative measures adopted by the application, the critical Koala habitat on the site will likely become less fragmented, due to the benefit of weed and feral animal management. According to Dr Crowther, the intent of the phasing of the clearing and nutrient-enrichment initiative is to ensure that Koalas currently utilising the impact area will be encouraged to relocate/migrate to the enhanced habitat within the CA, and thus will be less affected by any actual loss of habitat in the impact area.

236 The experts dispute the effectiveness of the proposed 'nutrient'-enrichment' program and its appropriateness as an adopted ameliorative measure. At the end of their oral evidence, the experts agreed that the nutrient-enrichment program was experimental and therefore should not be relied upon as an ameliorative measure in consideration of the application.

237 I agree that the proposed nutrient-enrichment program in the CA is not an ameliorative measure that should be relied on to mitigate adverse impact resulting from the clearing of the impact area. Whist I recognise that there is potentially some benefit to individual Koalas from this program, its outcomes are uncertain and should not be relied on as an ameliorative measure to mitigate adverse effect to the viability of the local Koala population. I therefore do not put significant weight to this initiative in my determination.

238 I concur with the experts that the replanting of suitable foraging and breeding trees in the currently treeless areas within the CA is an appropriate ameliorative measure that will expand the area available for critical Koala habitat and support their survival.

239 I recognise that Koalas moving beyond the site are at increased risk of predation (from dogs) and strike by vehicles. I accept the evidence of the experts that the proposed Koala fencing separating the precincts, roads, and

CA, as described in the application, is intended (as an ameliorative measure) to mitigate these specific risks. The purpose of the fencing is described in an excerpt of the oral expert evidence transcript below, and was a preference of Council, rather than placing a restriction on pet ownership:

> "WITNESS AITKENS: Yes. So, buffers can be an area of land, or buffers can be a structure. The idea is separating two land areas to reduce the shock of an impact. In the case of the development, there is a koala fence proposed that acts as a buffer. That koala fence is located within a - adjacent to the conservation area, but also adjacent to the perimeter roads. It sort of intervenes between the two, so it prevents koalas from entering the urban precinct. The area between the conservation area and the--
>
> …
>
> WITNESS AITKENS: Well, it was informed, yes, by my advice. Initially, because we had to separate koalas from the urban precinct. We know that koalas are subject to mortality when they enter urban precincts, so it was a necessity to control impacts. And yes, it was - that fence alignment was informed by my advice.
>
> …
>
> WITNESS AITKENS: And you'll note - you'll note that the fence comes down the riparian zones all the way down towards where the east west road is. And you'll note that there's a large area that's shaded yellow in the riparian zone and the fence goes down and extends below it. And the reason for that is, is that there are detention basins proposed in those areas.
>
> So, they could not be included in the conservation area but because the detention basins will be planted out with Swamp Oak - Swamp Mahogany, apologies, that that's a - a useful resource for koala; they can access that without being - without having to go into an urban precinct."
>
> Transcript, 1 March 2023, pp 531 - 533 (46 – 40)

240 The experts agree that Koalas (and other fauna species) would likely use these riparian corridors for movement across the site, to access their home ranges. The experts also agree that there is a higher risk of mortality for this species during the dispersal phase after clearing of the impact area commences, as Koalas seek new habitat.

241 I observed on the site view that the site is bounded by heavily trafficked roads, including the Pacific Highway and Newline Road, and (existing/future) residential development, which extends through the regional Koala Hub. This likely constrains rather than prevents movement beyond the study area. This movement comes with risk to the survival of the species, which the application seeks to address by adopted ameliorative measures.

242 After consideration of the application and evidence, I agree with Dr Moore that an unintended effect of fencing the riparian corridors is that they could potentially become a predator trap for native fauna, particularly to Koalas, due to their restricted dimension, essentially funnelling movement towards a constrained exit from the site. I have not been provided with sufficient evidence to assure me that there is no adverse effect that could cause a significant risk to the survival of the Koala species or adversely effect the local viable population, as assessed consistent with s 5A(2) of the EPA Act.

243 I accept the evidence of Dr Moore that as a consequence of the actions described in the application, Koalas associated with the site would become limited in their movement across the study area. There are direct risks posed to Koalas, from the proposed development on the site, and cumulatively within the KHURA.

244 The proposed (Koala) fence together with a reduced dimension of riparian habitat corridors, site bounded by busy roads and loss of connected critical habitat associated with (future approved) residential development of the KHURA and others, unacceptably increases the risk to the survival of this species. The direct effect on the local viable population from actions described in the application is a higher risk for individual Koalas to move freely through the study area and across their home range.

245 It is agreed that enhancement of the CA requires weed and feral management, and replanting of suitable trees. This takes significant time, which the experts estimate to be about 5-10 years before being suitable habitat for individual Koalas to preferentially seek out this habitat, and disperse into the CA. This assessment is supported in the submission of Mr Robertson SC described below:

> "[Robertson] … The criticism, Commissioner, and it's accurate, I have to say - I accept the criticism - that a lot of the revegetation won't become available to the koala for some years. Five years, ten years were two periods referred to in the evidence. The koala is known to graze juvenile trees to their detriment, I think, but there is, of course, a period of time during which the koala is unlikely to use the habitat or may use it periodically but not to the extent that it could be said to be occupied to its fullest limits. That's a criticism as well of the conservation area, but there are two answers to that criticism. The first is that the weeds have obviously been suppressing smaller trees, so the removal of

> the weeds will provide more light to the forest floor, more light to the existing juvenile trees
>
> So there will be a degree of growth experienced naturally, quite apart from active revegetation. So there will be compensatory growth occurring immediately, which will be either presently or shortly available to the koala for use, above and beyond what's already there.
>
> …"
>
> Transcript, 28 March 2023, p 1290 (7 – 21)

246 Dr Crowther expressed a belief that the 'very slow' rate of clearing proposed in the staged plan of works (Figure 2) was 'optimal' to prevent a significant effect to the Koala species. I however am not satisfied that the application achieves this belief as held by Dr Crowther.

247 The experts agree, as described in the excerpt of the oral evidence in the transcript below, that newly planted trees in the CA could be subjected to browsing, and potentially over browsing without active management:

> "REID: Just one question on the planting of koala feed trees within the conservation area. Would you both agree that the smaller species will have potential for over browsing from both koalas and other animals?
>
> WITNESS CROWTHER: The younger trees?
>
> REID: Mm-hmm.
>
> WITNESS CROWTHER: Okay. Yes, there's a potential they have to be protected to be established. That's what happens with - and so hopefully there's fences and other management actions will help that.
>
> REID: But the fences are not going to keep out other native fauna that are within the conservation area, it's not just a koala sanctuary?
>
> WITNESS CROWTHER: No, no, no, I'm talking about the fences around the individual trees.
>
> REID: Okay.
>
> WITNESS CROWTHER: You know, when you went there, there were those trees, they weren't naughty trees, they were fenced off because they were established.
>
> REID: Assuming they are very good trees, then the over browsing occurs really once the seedling is above the protective fencing but it still hasn't reached a mature height?
>
> WITNESS CROWTHER: There's, so
>
> REID: They're intended to be for browsing by koalas, aren't they?
>
> WITNESS CROWTHER: Yes, yes.
>
> REID: And if they're available for browsing by koalas, they're going to be available for other animals as well?

WITNESS CROWTHER: Yes, yes, they will be, yes.

REID: And whilst they're being established, there is a real threat that there could be over browsing which may lead to a decline in those trees being taken up growing?

WITNESS CROWTHER: There - there's a possibility that, yeah, that they will be browsed but again, that's - that's going to be a natural process that happens of any tree establishment. Again, fencing them off, you're giving them a - the crucial stage is at the very early stages. That's actually why a lot of tree planting campaigns don't work because everyone loves planting trees, people don't like maintaining trees. It doesn't seem to be a very fun activity. So yes, if, again, this is a managed area, so you're giving them the maximum chance of survival.

REID: Giving them the maximum chance of survival but in terms of available feed within a reduced habitat, they're going to be the fresh young leaves that are going to be attractive to not just the koala?

WITNESS CROWTHER: Well yes, but the - that's going to happen in those areas, well, maybe not as much because there's a lot of lantana that's been suppressing a lot of that but again, that's part of the process that they - yeah, so they'll available for other - other browsers as well and you'd want them to be available to other browsers, it's part of an ecosystem but they certainly will be there. But again, with management, you can try and stop them being over browsed.

REID: And how do you that, Dr Crowther?

WITNESS CROWTHER: Well, you can fence - well as I say, that's what you're doing at the very early stages, you're fencing them off.

REID: But after you've reached the early stage, how do you prevent over browsing as part of the management?

WITNESS CROWTHER: Well again, they still have those chemical - that's the thing, there's FPC and all those chemicals that I talk about, they still have those chemicals in there. Again, they're favourable for what the koalas eat but the koalas can cope with those chemicals, that's partly why they browse. So it's not like you're just having, you know, it's not like you're just putting chocolate bars out there and everything's going to eat them, they still have defences.

REID: There is a real risk that the plantings will not survive because there will be over browsing by koalas and other fauna, that's correct, isn't it?

WITNESS CROWTHER: I don't know the density of koalas in that area. This is certainly not the Otways, that that will necessarily be an issue. I would put a lot of effort into controlling the deer that are in the area. Certainly they would be a much greater threat I would think. And you're talking probably, that's what I thought you were talking about, insects. Koalas are not a threat.

REID: Be vertebrate and invertebrate as well, wouldn't it?

WITNESS CROWTHER: Yeah. Koalas are not the threat. If anything they, you know, they - they're not going to be in the densities that they're going to be a threat of over browsing in those areas.

REID: And it's not just the koala that we ought to be worried about in making sure that the feed trees grow to a sustainable level that they're available and

reach the intended outcome of having this greater density of feed trees within the conservation area?

WITNESS CROWTHER: Yes, you would want to try and maximise the chances and that's what you're doing for that - in that management. That's what you - you're just not leaving them there. You've got - you've got actual management - active management of those - of those seedlings into trees in those regions.

WITNESS CROWTHER: Yeah, there will also be, I suppose, the issue of things such as active management of deer as well, large browsers. Again, you're going to - things get - things eat the trees, they eat the leaves so you're going to put in that - but eucalypts - like, they're not defenceless trees at that stage. They still have chemicals within them. They still have the FPCs and all that defence, that over browsing so again, there will be some - some browsing, but I don't think it's going to be necessarily - you're not going to have a problem with koalas over browsing and again, some of these other things, you can manage them, monitor and then maybe apply adaptive management. But again, moving more into sort of an act of forestry management and that's not my field.

REID: Your area, okay. But in terms of what you understand, it's lantana maintenance, fences around trees and eradication of deer or prevention of deer entry to the conservation area.

WITNESS CROWTHER: They would have major effects, yes.

REID: Dr Moore, so long as it's quick, do you have anything in response to what Dr Crowther's said?

WITNESS MOORE: I mean there's always a risk and obviously eucalypts often do survive without suffering problems from over browsing by insects and vertebrates including native marsupials, wallabies and possums and so on but you increase the risk of these things happenings when you plant more palatable species, you know, in a monospecific stand and it's well recognised in agriculture and many other areas that you can reduce the impacts of pests by having a greater diversity of species or food sources that are present. I have issues about - I have concerns about the likely success of selectively choosing seed stock which is going to produce especially nutritious and low toxicity plants but, you know, were that to be successful, that would obviously greatly increase the risk of these sorts of problems occurring as well.

ROBERTSON: You see if over browsing was a problem, you would see evidence of it on the site presently in the areas of forest.

WITNESS MOORE: Well I understand there is a problem associated with deer. But that's not necessarily the case because we would be planting a new block of very high density planting - planted trees as is proposed, purely of a food - koala food tree species and then with seed stock which has been selectively chosen to be particularly nutritious and poorly defended against herbivores, you've got a concentrated food resource, then you see a concentration of herbivores as a response.

ROBERTSON: So you keep the herbivores out, don't you?

WITNESS MOORE: Well herbivores include koalas. You can't keep the insects out. You can't keep the possums out. You can't keep the wallabies out.

ROBERTSON: But the koala population here is not dense at all naturally. It's very low density, isn't it?

WITNESS MOORE: That's true, yep.

ROBERTSON: So it's hardly going to be - well it might well increase in numbers, but one would hope so, but the likelihood of those numbers increasing to a point where it just wipes out the planting, planted trees is slim, I suggest.

WITNESS MOORE: It probably depends on how successful the program to select particularly palatable trees is but it's - I wouldn't say that's highly likely in terms of the koalas. Possums may respond quite differently. Insects certainly very differently and there's lots of examples where plantations fail for these sorts of reasons.

…

WITNESS LACEY: It is - it is an activity that hasn't been done, the concerns that Travis raises are, I guess, reasonable, but the discussion was around having performance targets that could demonstrate that those seedlings that were planted are growing actively. And if they're not, you won't meet the target. So that was the purpose of having performance targets rather than opinion of whether it will or won't succeed. I understand there'll be twice as many trees planted, as will be needed to be able to demonstrate vigorous growth, or growth, and that only adds up to 22 trees per hectare across the whole conservation area. So it's not a huge amount of seedlings that need to be growing in that cluster conservation area.

ROBERTSON: Do you have a concern that that may be unsuccessful?

WITNESS LACEY: It's got potential, but there are ways to mitigate it by being very careful with planting methods and close monitoring.

…

WITNESS [DOBBYNS]: No. I - I think research would indicate that the site will dictate species composition over time and certainly forestry has indicated that where you are introducing species on to the site in excess of what's naturally occurring, that over time the site will win out and you'll go back to what is a normal distribution of species and species composition, including abundance."

Transcript, 15 March 2023, pp 981 - 1042 (25 – 49)

248 The potential effect of the 'slow' time it will take to establish critical habitat in the CA, preferred by the Koala species, is a reduction in the availability of suitable breeding and foraging trees for individual Koalas, before clearing commences.

249 The need for active management to improve the critical habitat for Koalas in the CA is not in itself a constraint to the viability of the local population. However, I am not satisfied that it has been sufficiently demonstrated that the proposed tree planting is an effective ameliorative measure to reduce adverse impact to the Koala species, because it may not provide sufficient trees at the

appropriate height and maturity that would support an increased carrying capacity on the site, when needed.

250 Based on my consideration of the application and evidence, I assess that there is a misalignment in the timing of actions proposed in the application, specifically relating to the start of the clearing (of the impact area) and having effective enhancement of the CA suitable to sustain (and entice) an increased carrying capacity for the Koala species. A reliance on species monitoring described in the BMP, to modify the scheduled clearing as required, does not sufficiently address this issue.

251 The perceived misalignment of actions described in the application is created by the adopted minimisation and ameliorative measures, and is not mitigated by the proposed monitoring. There is a disconnect between the timing of actions proposed in the BMP and the VMP.

252 To ensure effective ameliorative actions that mitigate adverse impact on this species, the enhancement of the CA should be undertaken and shown to be effective in providing a preferred critical habitat for Koalas, prior to the extensive clearing of the impact area. As sought in the application, the clearing of the entire impact area before it is has been sufficiently demonstrated that individual Koalas are willing/able to utilise the enhanced CA habitat (with sufficient carrying capacity), creates a potential significance of effect to this species, pursuant to s 5A(1) of the EPA Act, and in consideration of s 5A(2).

253 I do not have sufficient evidence to be satisfied that the local viable population of Koalas currently relying on the habitat in the impact area, particularly breeding females, will have sufficient time nor incentive to move into the (enhanced) CA, before clearing is scheduled to commence. I am not satisfied that Koalas currently occupying the habitat in the impact area will relocate into the CA in the two-year period, between when CA habitat enhancement starts and before clearing commences. I assess that in response to the clearing, Koalas could take unnecessary and additional risks to move elsewhere beyond the site and study area. This would significantly affect the survival of the species and adversely affect the local viable population. Koalas are listed as an

endangered species, and any unnecessary loss of individuals from the local population could further push the species towards the brink of extinction.

254 I assess there is uncertainty as to whether the adopted (Stage 1) 'ameliorative' enhancement works in the CA are appropriately timed, and effective in providing critical habitat that supports a local viable population of Koala in a much-reduced area. I recognise that due to the clearing of the impact area, there is an effective loss in area of critical habitat for Koalas across the study area, and that the application relies on the improvement in the quality of critical habitat in the CA to compensate for this loss. The application must therefore demonstrate the effectiveness of adopted ameliorative measures to provide for an environment that supports an increased carrying capacity in the CA. This is critical to the viability of the local population and has not been demonstrated to my satisfaction.

255 The BMP relies on yearly monitoring and analysis to determine whether individual Koalas stay in the CA for breeding and to assess 'habitat occupancy'. A performance target of the BMS is set to maintain habitat suitability and breeding activity. The BMS describes (SAT) monitoring across the CA. However, I note there is no monitoring of Koala activity within the impact area, prior to clearing (and after the assessment done on the SIS). There appears to be no capacity to dynamically analyse a 'net loss/gain' of this species from the site and potentially from the study area. This level of assessment would provide useful information to inform the applicants whether to commence clearing as scheduled, based on the staged approach shown in Figure 2.

256 I consider that the proposed clearing of the impact area to create the development footprint likely increases the impact of this 'key threatening process' on the Koala species, pursuant to s 5A(2)(g) of the EPA Act.

257 I have considered the actual extent, connectivity and importance of the critical habitat to be cleared, and assess that the adopted ameliorative measures are not sufficient to reduce the likely adverse impact and effect caused by the clearing of the Koala's critical habitat, pursuant to s 5A(2)(e). I assess that the critical habitat for this species will be substantially and adversely modified, and

the habitat fragmented by the actions proposed in the application, pursuant to s 5A(2)(c).

258 I find that the clearing of the impact area, an action fundamental to the application, undertaken before it has been demonstrated that the enhancement of the CA is suitable to accommodate an increased carrying capacity of Koalas, effectively results in a loss of a significant area of critical habitat for the Koala, for a period of time that will likely have an adverse effect on the life cycle of the species. Due to the effective loss of critical habitat, I am not satisfied that the local population of Koalas, which are listed as an endangered species, will remain viable, pursuant to s 5A(2)(b). I consider that the local population of Koalas could be placed at further risk of extinction from the actions described in the application.

259 In consideration of the factors described in s 5A(2) of the EPA Act, I assess that this endangered species is likely to be significantly effected by the actions described in the application, pursuant to s 5A(1).

260 I am satisfied that the SIS addresses the requirements of s 110(2) of the TSC Act, and that the DGR (5) described in the CER's has been considered, pursuant to s 111(1).

261 Based on my consideration of the application, I am satisfied that the application is likely to cause adverse environmental impact, pursuant to s 4.15(1)(b) of the EPA Act.

Brush-tailed Phascogale

262 The Brush-tailed Phascogale (*Phascogale tapoatafa*) is listed as a vulnerable species, pursuant to Sch 2 of the TSC Act.

263 It has been explained to the Court that the CA, as proposed on the site, is intended to support a connection of suitable habitat/lands zoned C2 within the KHURA, and the application seeks to form a coordinated and managed tract of conservation land, that effectively connects critical habitat of the Phascogale.

264 It is recognised by the experts that the home range of the Phascogales, particularly the males, extends well beyond the site, extending up to the

Wallaroo National Parks. The roaming extent of this species is influenced by seasonal variability of rainfall and diversity of food sources.

265 The SIS and the supplementary assessment described in the joint expert report (Exhibit 8) defines the ‘study area’ for the Phascogales by connecting the separated portions of the site and extending the area beyond the site. The local viable population is assessed over this area, including the site, contiguous forest east and west, south of Six Mile Road, north and south to Wetland 804, and the contiguous forest north of Six Mile Road up to Italia Road and beyond to Wallaroo National Nark and State Forest. The extent of the study area remains in dispute between the experts.

266 In consideration of the evidence, I am of the opinion that the ‘study area’, which forms the basis for assessment of the local viable population, should include the site, east to Grahamstown Dam, west to Wetland 802, north to Italia Road and south to Wetland 804. This is consistent with the definition in the DECC guidelines and a smaller area than assessed in the SIS, although consistent with that assessed by Mr Peake.

267 The SIS relies on numerous previous studies and recent surveys (including in 2003 and 2018) to identify individual siting locations and critical/suitable habitat for Phascogales associated with the site. Further studies were undertaken to supplement these surveys in 2022, using camera traps. The observed locations of individual Phascogales on the site and their critical habitat are described as being distributed across the CA and impact area. This species has also been identified in areas surrounding the site up to the Wallaroo National Park.

268 It was explained to the Court that Phascogales generally inhabit open dry eucalypt forest, with sparse groundcover. The Phascogale is a scansorial species (tree climbing) and likes to forage in trees. They are known to prefer habitat of rough barked trees including Ironbark, White Mahogany and Grey Gum trees. This species also prefers hollow-bearing trees.

269 A ‘high value’ habitat has been assessed in the SIS using the ‘arboreal surface roughness’ technique. It is estimated that up to 206.64 ha of critical habitat will be removed due to proposed clearing of the impact area, with at least 214.07

ha remaining in the CA (although it is noted that the supplementary assessment in the joint report differs in quantum of impacted area compared to the SIS). The experts agree that the site is currently degraded with respect to critical Phascogale habitat, due to a long history of logging and grazing, weed extent, and feral animal prevalence.

270 It is also agreed by the experts that there are three critical habitat areas of importance to this species, two of which are directly impacted by the actions described in the application. The experts agree that the subsequent species surveys identified a breeding female in the east of the impact area, and that this area is valuable to this species. Based on the more recent survey results identifying the third important habitat, the experts disagree whether the SIS has correctly assessed the significance of effect on this species, pursuant to s 5A(1) of the EPA Act. The adopted avoidance measure (relating to the dimension of the CA) remains in dispute because it does not include the areas of sited Phascogale individuals.

271 I understand that this species has a large home range and high mobility. Fragmented forest and cleared, open ground is no hinderance to their movement. According to Dr Clulow, in an excerpt of the oral expert evidence transcript below, the females of this species tend to occupy exclusive home ranges, making the habitat on the site critical to female Phascogales in the local population:

> “REID: And it's a general agreed proposition that males are going to have a larger range than females?
>
> WITNESS CLULOW: Larger home range and longer dispersal distances from the juvenile stage forward. Yeah. I think that would be right.
>
> REID: So, in terms of connectivity from the site up to Wallaroo, it'd be unlikely that a female's going to make a journey that far? It's only going be males that would ever make it that far? Adventurous males.
>
> WITNESS CLULOW: Well, they probably would like to think they're all adventurous. It’s - it seems to be the sex difference between the species, that females tend to disperse only shorter distances from the maternal home range. And so there's a certain amount of what's called philopatry, which is - means occupying that - the, you know, the space that you were - that, you know, the - the home range from which you were generated. In which you were generated.
>
> You know, from an adaptive sense, it would seem that there's some benefit in females staying closer to the maternal home ranges because they're proven

> areas of high productivity and suitable to breed - with breeding, so they tend to stay there. They don't tend to disperse--
>
> REID: It's safer too, aren't they?
>
> WITNESS CLULOW: Safer. It's safer and it's more likely to be where the - the habitat is - productivity is sufficient to support, you know, breeding phase of the life cycle. So, that's really important."
>
> Transcript, 10 March 2023, p 836 (18 – 45)

272 The experts agree that critical habitat for the Phascogale will be adversely impacted due to clearing within the impact area. The application therefore relies on ameliorative measures to mitigate this impact by enhancing the remaining habitat in the CA, to encourage and maintain the viability of the local population, pursuant to s 5A(2)(a) of the EPA Act.

273 Ameliorative measures adopted in the application to address the loss of critical Phascogale habitat, include: weed and feral fauna management in the CA; log placement; habitat corridors; cultural burning; and relocation and installation of hollows/nest boxes.

274 The 7-part test assessment described in the SIS and supplemented in the joint expert report (Exhibit 8), concludes that there is unlikely to be a significance of effect to the local population, relying on the enhancement of CA habitat and the provision of habitat corridors along riparian zones to allow species movement within and beyond the site.

275 Continuity and connectivity within the study area, and up to Wallaroo National Park is considered critical to the persistence and viability of the local population. As described in the excerpt of the transcript of evidence below, Dr Clulow assesses that habitat connectivity, although currently fragmented is not a hinderance to the movement of this species, which is disputed by Mr Peake:

> "REID: I'm just going to speed this up a little bit. The answer to my question is yes. You say that the local viable population extends to Wallaroo National Park?
>
> WITNESS CLULOW: Yes. Be happy with that.
>
> REID: So, to get to Wallaroo National Park from the site and back, a phascogale would need to cross fragmented habitat?
>
> WITNESS CLULOW: Not the - not continuously fragmented, that - that's connected habitat. There are patches of fragmentation within it, and it is fragmented or partly fragmented, but not fragmented to the - to the extent that you would expect it to cause a problem for dispersal for the species.

REID: So, fragment means that there are portions disconnected from the others?

WITNESS CLULOW: Yep. Yes.

REID: So, the path from the site to Wallaroo is fragmented?

WITNESS CLULOW: But not - in terms of their capacity to move across the landscape, not particularly fragmented.

REID: So, to be able to move across the fragmented habitat, they would need to cross roads?

WITNESS CLULOW: Correct.

REID: Including Italia Road and Six Mile Road?

WITNESS CLULOW: Correct.

REID: They might have to cross the quarry? Not the quarry on this side, the quarry further to the north?

WITNESS CLULOW: Further - further down or skirt around it. Yep.

REID: They might have to traverse across the offroad motorbike complex?

WITNESS CLULOW: Yes. True.

REID: And rural residential developments? And within that journey, there would be predation risks?

WITNESS CLULOW: Any time that a species disperses carries extra risks or predation. That's classically why juveniles dispersing, you know, huge range of species have a really have a much higher mortality rate than adults that have settled down and occupied a home range."

Transcript, 10 March 2023, pp 835 - 836 (5 – 2)

276 The 7-part test assessment in the SIS (and supplementary report in the joint expert report) relies on the connectivity of a contiguous forest habitat to allow this species to move up through to the Wallaroo National Park. I have already assessed that this extent does not form part of the study area.

277 It is noted that the assessment in the SIS does not focus on identifying individual numbers of Phascogals utilising the site, to determine the local viable population, but to ensure 'persistence' of the species, as explained in the excerpt of the expert oral evidence in the transcript below:

"REID: The SIS doesn't quantify the number of individuals that are likely to be lost from the development footprint.

WITNESS CLULOW: Right, yup.

REID: You'd agree with that?

WITNESS CLULOW: That is my recollection from reading it, yes. I think so.

REID: And you haven't given an estimate based on any survey data, either?

WITNESS CLULOW: No, I think we focused on the animals that we've confirmed to be on site, and considered the likelihood of persistence of essentially that number of phascogales in the future, utilising the existing breeding habitats. But I haven't - haven't stood back and said, okay, we're losing - there's a potential to lose 50% of the forest coverall. However, you want to express it. Therefore, we'd expect to lose 50% of the phascogales on the site. I don't think it's - it's not as simple as that, and it's actually - it would be very difficult to place a final tied-down quantitative number in terms of an estimate of the number of phascogale that would be lost to the site. Because, there's a strong likelihood that there won't actually be a loss of phascogales, even taking into the account the development proposal.

…

REID: Does that mean that for the purposes of understanding the impact, you couldn't say to the Court with any certainty what the actual impact would be on the phascogales, in terms of the development footprint?

WITNESS CLULOW: I think, given that we have good data over a number of years from a number of the reports and surveys going from, you know, 2017 onwards, Cumberland, ecology, RPS, and then the more recent ones last year, developed - there's been a very strong trend for there to be particular hot spots of phascogale records. At least in relative terms. But, particularly at two points. One is up at - near the quarry, near Six Mile Road. And the other is down at the south-eastern corridor.

REID: And is that based on full view of all of the photographic records, or is that on the--

WITNESS CLULOW: It's all the data taken together, including the photographic records, plus the records of the previous four or five years of surveys. Phascogales records tend to be turning up in two - in two, sort of, areas within the overall subject site. So, from my perspective that's telling us - starting to tells us quite a bit about how phascogales are utilising that - the system. And therefore you can make reasonable projections on what the likely outcomes of, you know, interventions, whether it's disturbance from the impact area, or, so on. Or amelioration works, mitigation works, and so on. What - what the outcomes of that might be. So, I think you can say with, you know, not absolute certainty but with a reasonable level of confidence you can make forward projections on what likely - on what the likely population outcomes for the species are to be, going forward, on that site."

Transcript, 10 March 2023, pp 831 - 833 (30 – 34)

278 The SIS's (and Dr Clulow's) 7-part test assessment concluding no significance of effect to this species is disputed by Messrs Peake and Cavallaro. They assess that because the distribution of large diameter (rough barked) ironbark trees, preferred by this species, are predominantly located in the impact area, there is an adverse impact (loss) to critical habitat that is not sufficiently mitigated. The loss of these preferred trees, being critical habitat to this species, will not 'quickly' be replaced in the CA, resulting in a period of time where there is an effective loss of resources suitable for the Phascogales.

They are also concerned that there is uncertainty to the numbers of the local viable population and that the assessment in the SIS relies on areas well beyond what is considered the study area.

279 These experts explained that Phascogales rely on the rough barked trees for foraging and the tree hollows for denning. They agree that some of the adopted ameliorative measures in the CA will have some benefit to the species. However, there is a 'tension' that needs to be resolved between enhancing the habitat for the Koala and that preferred by the Phascogale. This is disputed by Mr Aitkens and Dr Clulow.

280 Mr Aitkens agreed in evidence that the proposed nutrient-enrichment initiative of trees in the CA was a targeted benefit to the Koalas, although would be a supplementary benefit to the Phascogales. I have already determined that this initiative has little weight in my consideration. The applicants' experts explained that there is no 'tension' between protecting the Koala and Phascogale species, as both prefer ironbark trees, with the Koala preferring the leaves and the Phascogale preferring the bark.

281 The likely effectiveness of habitat connectivity between Wetland 803 and across the site, after clearing, and the potential for vehicle strike due to species movement across the proposed E-W road remains unresolved between the experts. The application references 'fauna connectivity structures' as an effective mitigation measure to assist the movement of Phascogales through the CA and across the Pacific Highway, however this is not a described action of this application. I find there is a lack of detail in the application on appropriate fauna connectivity structures, which are recognised by the experts as needed to support Phascogale movement through the site, specifically to cross the proposed E-W road.

282 I assess that the increased discontinuity of critical habitat to support feeding/foraging and the movement of the local population of Phascogale beyond the site poses a significant risk to the viability of this species. Individual Phascogales associated with the site and within the study area, are increasingly restricted in their movement across their home range, including up to Wallaroo National Park, due to a constriction in habitat corridors, similar to

that described for the Koalas. Thereby becoming a target for predation and at greater risk of crossing busy roads.

283 Based on the actual loss of critical habitat on the site and fragmentation of its connectivity within the study area, I assess there is a likelihood of adverse effect to the viability of the local population of this species. It is recognised that there are two key areas of habitat where individual Phascogales have been identified within the impact area, and these are scheduled to be cleared in the Stage 1 works. The dimension of the CA is not an appropriate avoidance measure for this species.

284 The previously assessed misalignment in the timing of the actions in the application, specifically the clearing of the impact area and enhancement of the CA, is likely to also result in an adverse effect to the local population of the Phascogale species associated with the site. The actual loss of critical habitat from clearing of the impact area, which is known to support Phascogales, including a (breeding) female, requires effective and timely enhancement of the CA, to improve the critical habitat remaining and sustain the local Phascogale population.

285 I do not accept that the application has adopted sufficient avoidance measures to protect the critical habitat for this species. I find that the actions of the application, which are primarily based on poorly timed and not specifically Phascogale species focused ameliorative measures, will likely result in an adverse effect on the life cycle of this species, pursuant to s 5A(2)(a) of the EPA Act. In response to the clearing, individual Phascogales are likely to be at an increased risk during dispersal within and beyond the site.

286 I am not satisfied that individual Phascogales identified on the site, particularly breeding females located in the impact area, will have sufficient time, ability nor incentive to move into the CA, prior to the commencement of clearing, as scheduled in the BMS. It is accepted that the movement of Phascogales into the CA, and not out of the impact area, is the subject of monitoring as described in the BMP. This is intended to inform modifications to the clearing schedule. I find this is not sufficient nor well founded, as there is no reliable

evidence supporting the application on the actual numbers of this species associated with the site, and which make up the local viable population.

287 The evidence of the experts indicates that establishment and enhancement of critical habitat suitable for Phascogales in the CA, including effective weed/feral animal management, will take some time.

288 There is no certainty that the adopted ameliorative measures will be sufficiently effective to encourage or support individual Phascogales to move into the CA, rather than take their chances and move beyond the site, at greater risk. This dispersal/movement beyond the site has the potential to adversely impact the viability of the local population. This (forced) movement, with associated increased risk from predators and vehicle strike is likely detrimental to the survival of this species.

289 I find that the proposed clearing of the impact area will result in an increase in adverse impact to the Phascogale species from this 'key threatening process', pursuant to s 5A(2)(g) of the EPA Act.

290 I have considered, with respect to the local population of Phascogales, the actual extent, connectivity and importance of the habitat to be removed, and assess that the avoidance and ameliorative actions adopted in the application are insufficient to mitigate the loss and adverse effect on critical habitat of this species, pursuant to s 5A(2)(e).

291 Due to the clearing of the impact area, the critical habitat of this species will be substantially and adversely modified, and the habitat fragmented by the actions proposed in the application, pursuant to s 5A(2)(d). I find that this vulnerable species will be significantly effected from the actions described in the application, pursuant to s 5A(1) of the EPA Act.

292 I am satisfied that the SIS addresses the requirements of s 110(2) of the TSC Act, and the DGR (5) described in the CER's has been considered pursuant to s 111(1).

293 Based on my consideration of the application, I am satisfied that the application is likely to cause adverse environmental impact, pursuant to s 4.15(1)(b) of the EPA Act.

Grey-crowned Babbler

294 The grey-crowned Babbler (*Pomatostomus temporalis*) is listed as a vulnerable species, pursuant to Sch 2 of the TSC Act.

295 It has been explained to the Court, that the CA is intended to support the connection of lands zoned C2 within the KHURA, and to support the foraging of the Babbler species, particularly within the western portion and beyond the site, across the McCloy land.

296 Babblers are known to prefer Box-Gum Woodland, Box-Cypress pine and open Box Woodland, habitat that is found generally on slopes and plains. On the site, this vegetation is found around Wetland 803 and the adjoining slope (an area shown in the proposed precinct plan as precincts 6 and 7). This species nests in shrubs and saplings, and forages on the ground in leaf litter looking for insects. They are generally found in flocks of between 2-15 birds, which remain in close proximity (<30 m) during foraging for social and predator protection reasons.

297 The experts agree that group size of local flocks are generally declining, with small groups of less than three birds increasingly common, due to habitat fragmentation/simplification and predators. Flocks of Babblers live in permanent territories that are aggressively defended, with home ranges up to 50 ha. The actual local population of this species could be up to 1300 birds, found over an area of 5843 ha. The SIS describes the groups of Babblers as typically comprising 4-12 birds, including a breeding pair.

298 The extent of the study area to define the local viable population remains in dispute between the experts, which is agreed as being different from the actual local population, described above. Mr Peake considers that the SIS does not accurately correlate the study area with the local viable population. The experts agree that the local viable population is likely to consist of five groups of Babblers, of which one group is located in the west of the site around Wetland 803 and three groups are identified around the Irrawang Swamp area (Wetland 804).

299 I consider that the local viable population should be assessed over a study area that includes the site and ‘connected’ land that extends from Raymond Terrace to Wallaroo National Park.

300 It is recognised by the experts that the home range of the Babblers associated with the site, extends well beyond the site and study area, up to the Wallaroo National Park. The roaming extent of this species is influenced by the diversity of food sources.

301 The SIS relies on numerous previous studies, including by HWC in 2004, and more recent surveys in 2017 and 2018. These surveys are useful to identify the individual (siting) location and critical habitat of the Babbler. The observed location of individual (groups) Babblers on the site and their critical habitat is described in the SIS as being predominantly in the western portion of the site, across the CA and impact area. The SIS observes that the main nesting sites of groups associated with the site is around Wetlands 803 and 804, which are located within the CA. Observations of this species have consistently been around Wetland 803, since 2016. Sightings range from 1 to 12 birds, and the SIS estimates that approximately 7 birds are nesting on the site.

302 The preferred nesting habitat of the Babbler is identified as Forest Redgum, Spotted Gum and White Stringybark within PCT 1590, that is primarily located in the west of the site, around Wetland 803. Nesting activity has been spotted in the Swamp Oaks around Wetland 803, and foraging is predominantly on the slopes north of Wetland 803, extending into the McCloy land. This is agreed by the experts.

303 It is estimated that up to 32.21 ha of critical habitat for this species, primarily for foraging, will be cleared by the application, with at least 12.44 ha of critical habitat remaining in the CA. A further 12.67 ha is estimated to become available due to enhancement of the CA by planting in the currently treeless lands (adopted as a key ameliorative measure). The experts agree that the site is currently degraded with respect to suitable habitat for this species, due to a long history of logging and grazing, weed extent, and grazing animals. The experts also agree that this species prefers relatively clear land for foraging.

304 The SIS assesses that the regional corridor for this species, extending from Raymond Terrace to Wallaroo National Park and Tilligerry State Conservation Area will remain unaffected by actions of the application.

305 It is accepted that there is critical habitat with sparse plantings, important to this species for foraging, that will be directly impacted by actions of the application, specifically clearing of precincts 6 and 7.

306 The experts do not agree that there is sufficient critical habitat protected in the CA or that the proposed plantings of trees will be of sufficient benefit to the Babbler. They also do not agree whether there is an increased risk to the Babbler from the elevated structure of the E-W road.

307 I understand from the evidence that this species has a large home range and high mobility. Fragmented forest and cleared, open ground is no hinderance to their movement, in fact open ground is a preferred habitat condition for foraging.

308 The experts agree, and I concur that the current foraging habitat for the Babbler on the site, within precincts 6 and 7, will be adversely impacted (due to clearing within the impact area), although their current nesting habitat will remain intact in the CA.

309 The application therefore relies on appropriate ameliorative measures to enhance the remaining suitable foraging habitat in the CA, to encourage and maintain the viability of the local population. These measures are described in the BMP and relied on by the application to reduce any adverse effect to this vulnerable species, pursuant to s 5A(2)(a) of the EPA Act.

310 Ameliorative measures adopted in the application to specifically address the loss of critical habitat to this species include: weed and livestock management in the CA; and log placement. It is acknowledged there are other ameliorative measures that may benefit the Babbler, although designed to address adverse impact to other species assessed in the SIS, as explained in the excerpt of the transcript of oral expert evidence below:

> “WITNESS AITKENS: Okay. Yeah. So that's a different group of birds. So we have two groups that we're referring to now. The first group is that that's occupying habitat around wetland 803, and the second group

REID: On the subject site.

WITNESS AITKENS: On the subject site - and the second group is occupying habitat in part of wetland 804.

REID: You're saying that the group that are around wetland 803, if they don't move to the north, they're going to move to the south.

WITNESS AITKENS: As I said, movement in this case is more to do with dispersal. I - I do anticipate that the group that's currently occupying habitat around wetland 803 will actually remain there.

REID: Not withstanding that they're found generally within the vegetation that's to be cleared rather than on the other side of the wetland.

WITNESS AITKENS: Yeah, so there is habitat loss indeed, and that's - that's been assessed, that's been identified. The - the - I guess the mitigation responses proposed include, for instance, the - the management of lantana in - in areas that are suboptimal and - and not currently occupied. So there will be some restoration of habitat. And then secondly there will be revegetation works around the wetland where the vegetation is currently cleared and the - the babbler is not utilising that - that land, and that area there will also be utilised by - by babblers over time. I - I do point to

COMMISSIONER: That's different type of habitat

WITNESS AITKENS: It - it is.

COMMISSIONER: That's their breeding rather than foraging.

WITNESS AITKENS: Yeah.

COMMISSIONER: That's right?

WITNESS AITKENS: Yeah. So I did point - I pointed to babblers using saplings, that's part of - as part of their habitat. They actually nest in saplings and they often nest sort of 4 to 5 metres above the ground. Whether that's in a large tree with a - a low hanging limb, or if it's in a - a young tree that's growing, I - we saw evidence of that on site. I - I do anticipate that there will be utilisation of that area that's revegetated at some point, perhaps not immediately, but as the - as that vegetation is - matures and as it's thinned, because there will be some thinning of the revegetation works in cleared land, the - the - the habitat will open up. It's proximal to the area that they're currently occupying and - and I do anticipate that there will be utilisation of that vegetation.

REID: That would be a much smaller area of habitat than what they're presently using at the moment, isn't it?

WITNESS AITKENS: I think the revegetation works is around about 9 to 10 hectares. I - I - I'd have to look at the - the tables and the SIS to be - to be precise, but it's - it's in that order and it's roughly equal to one of the phases. There's three phases. There's one of the phases is about 9 hectares of loss. So it's roughly equal to that.

ROBERTSON: Can I just again to be helpful ask you to look at page 2002 of the SIS and it's table 7.1. Is that where the calculations are made about the areas avoided? Is that what you're speaking about, or is it something else?

WITNESS AITKENS: I was - no, I wasn't referring to this table. I was referring to the revegetation works that are around wetland 803. So if I - if I go to the

next table on two - on folio 2004, there's some revegetation works in that table to be performed around wetland 803 in area A. Area A is shown in figure 7.3 on folio 2008. So the - the revegetation works around wetland 803, and there's also some revegetation works around the water body that's immediately north of wetland 804 and that's in the right hand side of that figure. So when you go back to table 7.2 on folio 2004, you have two areas of revegetation works. One says, “11.23 hectares, area A,” and another says, “3.27 hectares area B.” Area B refers to a different area again on a different figure.

So we'll just focus on the 11.23 hectares. On the figure that I mentioned, that's figure 7.3, which - which represents the revegetation works for area A, a portion of that 11.23 hectares is around wetland 803. I can't remember exactly what that amount is, but I think it's about 9 - 9 and half hectares or thereabouts, and then the remaining revegetation works are in the detention basins, which I think - which are shown, and also around that water body in the right hand side of the figure.

ROBERTSON: Does table 7.4 have those areas?

WITNESS AITKENS: 7.4.

ROBERTSON: Page 2006.

WITNESS AITKENS: Yes, it does. Again if you add 4.57 to 7.18, you'll get that total of 11.23. I can say from that table, that 4.57 hectares of swamp mahogany will be planted around wetland 803 and then a large - a reasonable proportion of the 7.18 hectares of forest Redgum and tallowwood will be planted around wetland 803 as well, although there will be some of that prescription planted around the water body north of 80 4. Again, my recollections are it's about 9 and a half hectares or thereabouts around wetland 803.

COMMISSIONER: So if you go to table 74, it doesn’t say the main beneficiary would be the babblers.

WITNESS AITKENS: Yeah, that's - the main - the main benefits are for the grey crowned babbler and also for the koala.

COMMISSIONER: Where are you reading that?

WITNESS AITKENS: This is in 7.4.

COMMISSIONER: Table 7.4.

WITNESS AITKENS: Table 7.4. Yeah.

REID: It says the flying fox.

COMMISSIONER: I don't have any

WITNESS AITKENS: Sorry, flying fox, yes, and koala. They're the main benefits. So the - these - these tree species that we’re planting are - are - are winter - winter and spring flowering species. So the nectar they produce is well known to be utilised by - by breeding flying foxes and - and for instance other species such as the Regent Honeyeater and Swift Parrot, which are noted in the paragraph above, were mentioned as well as Little Lorikeet and Squirrel Glider.

COMMISSIONER: Yes, but the babbler is not mentioned.

WITNESS AITKENS: The - the babbler is not mentioned there, that's right, because I'm pointing to main benefit. I do expect some benefit from the revegetation works, but I wouldn't characterise it as main benefit.

ROBERTSON: Just on table 7.5 on page 2013 where the babbler is mentioned, you've got ticked column for "weed management" and then "conservation mechanism."

WITNESS AITKENS: That's - that's correct. Yes.

COMMISSIONER: That's all that it's been done for them.

WITNESS AITKENS: That - that's right. Yes. I think if I could point out the "habitat enhancement" column, this is a - this was subsequent to the - to the SIS publication. I became aware that logs on ground is particularly important for - for babblers and if I had have had that knowledge at the time I certainly would have ticked that column as well for the babbler. And - and it's - it's arguable, but I - I would - I would view that the babbler will obtain benefit from the revegetation works around the wetland, however, I do note that that - that column is not ticked in that table.

COMMISSIONER: Let me share with you my concern. My concern is that the babblers have not formed a key component of the assessment in terms of impact area and mitigation strategies. There may be complementary benefits, but they don't appear to be fundamental consideration such as what's happened for the koalas or the Phascogales. Would that be a reasonable assessment?

WITNESS AITKENS: Yes, it would and - and I would - I would mention also that the - the sensitivity of the species to the impacts are not as great as - as one might think. The species is well known to utilise the peri urban environment. The - the literature does support that, there's actually a publication for - for threatened birds in the - the Lower Hunter. Matthew Roderick and Alan Stuart in 2010, I believe, and they - they assessed all the - the woodland bird species that are threatened in the Lower Hunter and they actually pointed out to the grey crowned babbler and said that its - its status is actually increasing in the Lower Hunter and it's not - it doesn't appear to be as threatened or as negatively affected by - by urban development as otherwise indicated for the other woodland bird species in the Lower Hunter.

COMMISSIONER: Can I just ask, Dr Harrison, would you agree with that assessment?

WITNESS HARRINGTON: Yes. So in that same report, they - they state that the babbler is actually increasing in numbers in the Lower Hunter compared to a lot of other species they were concerned about which were decreasing in abundance.

COMMISSIONER: Mr Peake, would you agree?

WITNESS PEAKE: Commissioner, the babbler has been increasing in the Lower Hunter more broadly. I - I don't think the increase is astronomical, but I agree that it's been increasing and that could be to do with a whole range of factors including climate change. I'm not sure that it's well known but certainly the Lower Hunter - that might be to do with a lot more survey effort as well. That's always something to be considered, but it does point, I think, to the importance of this area in retaining habitat for this species.

COMMISSIONER: Is that increase sufficient that if the babblers were lost on the site, for whatever reason, that the test which is the

WITNESS PEAKE: Local - local viable.

COMMISSIONER: local viable population can still be maintained?

WITNESS PEAKE: Commissioner, I don't know the answer to that I'm afraid. I'm - I'm definitely very concerned about that.

WITNESS HARRINGTON: I believe that based on the information at hand that the local viable population would - would remain.

WITNESS: Just on that note

COMMISSIONER: No. I just need to understand the basis of Dr Harrison's assessment there based on

WITNESS HARRINGTON: Excuse me. Based on the amount of habitat remaining around the - in the surrounding area, including within the study area but also outside the study area

COMMISSIONER: You know that part of that area is part of the Kings Hill urban release area

WITNESS HARRINGTON: Yes.

COMMISSIONER: and which is subject to development.

WITNESS HARRINGTON: I have - yes, I looked

COMMISSIONER: You've factored that into your consideration.

WITNESS HARRINGTON: I have looked

COMMISSIONER: All right.

WITNESS HARRINGTON: at what's proposed there and the - the connectivity is maintained through adjacent and connecting conservation areas in that - in that proposal, although I don't believe anything has been set on as yet. Yes. So basically there is a broader population that is obviously strong and a lot of habitat is - is in that, in the locality, and that combined with the connectivity that's been maintained through the design of the proposal and the area of habitat remaining within the study area. We've got to remember that there's 44 hectares around wetland 804 that will remain and will be untouched by the proposal, and then all the - the habitat to the north and including in the study area, which Mark didn't map because he couldn't be confident. So he was being conservative. He couldn't be confident that - that individuals occurred in that area, but from my assessment they would definitely utilise that area.

REID: Dr Harrington, you heard Mr Aitkens' evidence earlier that the flock that are down near wetland 804 are a different group than the ones that are up around 803.

WITNESS HARRINGTON: Yes.

REID: That would cause a problem with them sharing habitat, wouldn't it?

WITNESS HARRINGTON: Obviously they have home ranges which they defend. So I'm not saying they will expand into each other's habitat, although, you know, they probably interact like that regularly because, you know, they - they put - patrol, if you like, the borders of their - their home range. But

> REID: That means that the 44 hectares that you told the Court was available habitat is not really 44 hectares, is it?
>
> WITNESS HARRINGTON: It's - no, all I'm - all I'm stating is that there is, you know, there's more habitat than has been assessed."
>
> Transcript, 10 March 2023, pp 774 - 779 (49 – 50)

311 The experts agree that the weeding, livestock management and strategic log placement, are appropriate ameliorative measures that will benefit the local population of the Babbler, particularly in their nesting area around Wetland 803.

312 The experts agree that the adopted ameliorative measures will have some benefit to the species, however there is a 'tension' that needs to be resolved between enhancing habitat suitable for the Koala and that preferred by the Babbler. This is disputed by Mr Aitkens and Dr Harrington, as explained above.

313 The 7-part test assessment provided in the SIS and supplementary assessment in the joint expert report (Exhibit 8) concludes that there is unlikely to be a significance of effect to the (individual/groups) Babbler species associated with the site or to the local population. This is based on the ameliorative measures being adopted as described in the application. This assessment is disputed by Mr Peake.

314 The assessment of a significance of effect, as assessed in the SIS, pursuant to s 5A(1) of the EPA Act relies on ensuring sufficient connectivity of a contiguous forest habitat for this species to move up through to the Wallaroo National Park, as part of its regional corridor.

315 The 7-part assessment relies on the elevation of the bridge structure forming part of the E-W Road, to assist in the movement of flocks of Babblers from their nesting grounds (around Wetland 803) to foraging areas (north of the wetland). The connectivity of critical habitat around Wetland 803 across the CA and beyond the site, together with the potential for vehicle strike as flocks move between these habitats remains in dispute between the experts. It is accepted that although route forms part of the concept proposal, its construction is not the subject of this application.

316 In consideration of the evidence before me, I assess that the 'connectivity' of critical habitat, including open ground to support foraging for this species, is at

greater risk, based on the application. There remains a poorly assessed likelihood of increased risk to the dispersal of Babblers across (over/under) the E-W road because the application unreasonably relies on critical habitat beyond the site to support the Babbler foraging. The loss of critical habitat in precincts 6 and 7 is likely to be detrimental to the survival of the local population of the Babbler.

317 I assess that the individual Babblers associated with the site and of the local population, are likely to be adversely impacted, primarily due to the loss of critical foraging habitat in precincts 6 and 7. I do not accept Dr Harrington's evidence, that this area is currently 'suboptimal' for the species, as it is agreed that this is currently a preferred area that this species utilise for foraging.

318 I find that the adopted avoidance and ameliorative measures for the Babbler are insufficient to address adverse impact to this species. The area of critical habitat, that the experts agree is used for foraging across precincts 6 and 7 is not excluded from clearing, resulting in an effective loss of critical habitat for foraging by this species on the site. The remaining habitat in the CA has not been demonstrated as being suitable or capable of being enhanced to a sufficient quality for foraging by this species, as it was explained to be a different vegetation type and physiographic orientation than that existing in precincts 6 and 7.

319 It is accepted that the enhancement of habitat in the CA is not to directly benefit this species, therefore this is not a reliable ameliorative measure. It is my understanding from the experts that the establishment and enhancement of suitable habitat for the Babblers is not a priority in the enhancement of the CA.

320 In response to the clearing of precincts 6 and 7, individual/groups of Babblers are at increased risk, having to move beyond the site, and possibly beyond the study area in search of food, which could significantly effect the viability of the local population. There also remains uncertainty with regards to the (expert agreed) suggested fauna connectivity structure/s across the E-W road, which is not detailed in the application.

321 The loss of critical habitat connectivity, without sufficient mitigation will likely affect the survival of this species. I find that actions described in the application

will likely have a significant adverse effect on this species, pursuant to s 5A(2)(a) of the EPA Act.

322 There is insufficient evidence to be satisfied that the Babblers identified on and associated with the site, particularly the breeding pairs and groups foraging in the impact area, will not be adversely affected by the loss of foraging habitat on the site. The group identified on the site forms part of a quantum of birds within the study area. Impact to the group associated with the site, being one group of five making up the local population, is likely adverse to the survival of the local population.

323 There is no certainty that the adopted ameliorative measures will be effective to encourage the Babbler to nest or forage in the CA, rather than take their chances and disperse beyond the study area, at significant risk. The increased risk from vehicle strike is likely adverse to the local population survival and could cause a significant effect to this threatened species.

324 Clearing of the impact area, as proposed by the application and the effective loss of critical habitat area on the site, particularly for foraging, will likely have an adverse effect on the life cycle of the species. This loss is not sufficiently assessed or mitigated by actions described in the application.

325 The adopted ameliorative measures do not sufficiently address the potential impact to this species resulting from the clearing of the impact area, as a ‘key threatening process’, pursuant to s 5A(2)(g) of the EPA Act.

326 I have considered the actual extent, connectivity and importance of the habitat to be removed for foraging by this species. The actions adopted by the application will likely have an adverse effect on critical habitat of this species, pursuant to s 5A(2)(e).

327 In consideration of the application it has not been demonstrated that the local population of Babbler will remain viable, pursuant to s 5A(2)(a) of the EPA Act. The critical habitat for this species will be substantially and adversely modified, and the habitat fragmented by the actions adopted by the application, pursuant to s 5A(2)(d).

328 The proposed clearing of the impact area without sufficient avoidance and ameliorative measures, as relied on by the application results in an effective loss of critical habitat, with fragmentation of adjoining critical habitat, that will likely have an adverse effect on the life cycle of this species.

329 The Grey Crowned Babbler is listed as a vulnerable species, and in consideration of s 5A(2) of the EPA Act, I find that there is potential for significant effect to this species as a result of actions of the application, pursuant to s 5A(1).

330 I am satisfied that the SIS addresses the requirements of s 110(2) of the TSC Act, and the DGR (5) described in the CER's has been considered, pursuant to s 111(1).

331 Based on my consideration of the application, I am satisfied that the application will likely cause adverse environmental impact, pursuant to s 4.15(1)(b) of the EPA Act.

Are there adverse impacts to wetlands associated with the site resulting from the application?

332 The Panel contends that there will be a need for (future) works and infrastructure, based on concept proposal described in the application, located within designated wetland areas, and that the potential impact to wetlands has not been sufficiently assessed. The potential impact results from changes in the water cycle (hydraulic) and water quality of wetlands, due to (future) stormwater management, specifically from precincts 6 and 7.

333 It is accepted that the site contains Wetland 803, a coastal wetland mapped in s 2.7 of the SEPP Resilience and cl 7.9 of the PSLEP. Although wholly contained within the site, it is however recognised that the boundary of the wetland extent is differently defined between these environmental planning instruments.

334 Precincts 6 and 7, and part of the E-W road will ultimately be required to drain overland flow into Wetland 803, via stormwater infrastructure. The potential for adverse impact to Wetland 803 resulting from these future works, as described in the concept proposal, remains in dispute between the experts.

335 Located to the south and east of the site is Wetland 804, also known as the Irrawang Swamp, a coastal wetland mapped in s 2.7 of the SEPP Resilience and the cl 7.9 of the PSLEP. It is accepted that precinct 5 and part of precinct 4 will ultimately drain into Wetland 804.

336 The eastern portion of the site naturally drains toward the Grahamstown Dam, with overland flow currently directed through a spillway beneath the Pacific Highway. The protection of water quality in the Grahamstown Dam and Wetland 804, both the responsibility of HWC, is assessed against the Neutral or Beneficial Effect on Water Quality Assessment Guideline 2011 (NORBE), prepared by Water NSW, and pursuant to cl 7.8 of the PSLEP. The Dam discharges overflow into Wetland 804.

337 The KHURA relies on a future stormwater drainage channel, which is the subject of the State VPA, and although relied on for drainage of the eastern precincts, is not sought for consent as part of this application. This channel will ultimately divert stormwater (overland flow) directly into Wetland 804. The experts do not agree whether the water quality targets, specifically the nutrient load to protect Wetland 804 have been met.

338 Located to the west of the site, within the Williams River floodplain, is Wetland 802, a coastal wetland mapped in s 2.7 of the SEPP Resilience and cl 7.9 of the PSLEP. The site does not directly drain into this wetland.

339 Parts of the site are covered by the mapped ‘proximity area for coastal wetlands’ including those Wetlands 803 and 804, pursuant to s 2.8 of the SEPP Resilience. The future NR interchange is indicatively shown to be located within this area for Wetland 802.

340 The experts agree that stormwater infrastructure described in the concept proposal and relied on for the future function in the development of the site is shown as ‘indicative’. It is accepted that more definitive locations and design for this infrastructure is the subject of future development applications for the precincts.

341 The experts agree, and I concur, that there are likely future stormwater related works associated with the NR interchange located in the proximity area of

Wetland 802, engaging s 2.8 of the SEPP Resilience. The extent of future stormwater infrastructure for the E-W road and to support precinct 7 within the proximity area of Wetland 803 remains in dispute between the experts.

342 The experts also dispute whether the application should provide a more detailed understanding of stormwater management that would support future development of the site, to assist in assessing the potential for adverse impact to the wetlands that are hydraulically connected with the site, pursuant to relevant clauses of the SEPP Resilience and PSLEP.

343 The experts accept that major earthworks do not form part of the application, however, dispute whether the proposed clearing/weeding in the Stage 1 works could cause erosion and sedimentation that would necessitate erosion/sediment controls to protect the water quality of wetlands.

Assessment

344 The SIS makes an assessment that there will be no adverse impact to the habitat and water quality of wetlands associated with the site and resulting from future development of the site and actions described in the application.

345 With regards to the differences in the mapped extent of Wetland 803 in the SEPP Resilience and PSLEP, the experts were unable to describe how the PSLEP mapping was derived, including criteria and data source or agree on which boundary is correct.

346 Ms Collier considers that this boundary discrepancy could be the result of the PSLEP mapping adopting a Probable Maximum Flood inundation level, and also includes the farm dam (to the east) on the site.

347 Dr Martens, however, considers there is an error in the PSLEP mapping. He explained that whilst he is not aware of the procedure adopted, his understanding of the SEPP Resilience mapping procedure, suggests that the SEPP mapped wetland extent is likely to be the more accurate boundary. His assessment considers that the slopes of the wetland do not naturally form part of a wetland, as mapped in the PSLEP.

348 Dr Martens described in evidence Wetland 803 as a “natural wetland artificially modified”, while Mr Clark relies on the “floristic assessment line” to better define the wetland boundaries.

349 The definition of a wetland, below, as described in the PSLEP, and adopted in the SEPP Resilience, is considered in my assessment:

> **wetland** means—
>
> (a) natural wetland, including marshes, mangroves, backwaters, billabongs, swamps, sedgelands, wet meadows or wet heathlands that form a shallow waterbody (up to 2 metres in depth) when inundated cyclically, intermittently or permanently with fresh, brackish or salt water, and where the inundation determines the type and productivity of the soils and the plant and animal communities, or
>
> (b) artificial wetland, including marshes, swamps, wet meadows, sedgelands or wet heathlands that form a shallow waterbody (up to 2 metres in depth) when inundated cyclically, intermittently or permanently with water, and are constructed and vegetated with wetland plant communities.

350 Based on the evidence, I accept the accuracy of the mapped extent of the Wetlands 802, 803, and 804 (Irrawang Swamp) as described in the SEPP Resilience, except where I assess a deviation is reasonable. I am satisfied that the extent of Wetlands 802 and 804 are generally accurate, being a reasonable reflection of the SEPP Biodiversity mapping extent.

351 Based on this assessment, I am satisfied that the application, as conceptually designed, demonstrates there is no reliance on stormwater infrastructure and works located within the mapped extent of Wetlands 802 and 804, pursuant to cl 2.7 of the SEPP Resilience (or within a more assessed wetland mapped extent in the PSLEP). The provisions of cl 2.7 of SEPP Resilience and cl 7.9 of the PSLEP are not engaged for these wetlands.

352 I generally concur with Dr Martens in his description of Wetland 803 having both natural and artificial features. I also concur with Mr Clarke that the boundary of Wetland 803 is accentuated by the floristic characteristics. I adopt Ms Collier’s assertion that the farm dam, located east of Wetland 803, hydraulically forms part of Wetland 803, being an artificial part of the wetland, thereby creating an extension of inundation area during high flow periods, and consistent with the definition of a wetland in the PSLEP.

353 The SEPP Resilience mapped wetland (803) extent is consistent with the line of floristic mapping adopted by the application, and appears to relate to the low to moderate levels of inundation that would generally support the soils and habitat of the natural, and in parts artificial, wetland (803) associated with the site. However, due to the influence of the farm dam, I assess this wetland should extend towards the east. In consideration of the concept proposal, there are likely to be future works (subject to separate development applications) required within the extent of Wetland 803, thereby engaging cl 7.9 of the PSLEP.

354 In consideration of concept proposal and likely future works in the proximity area of a coastal wetland, pursuant to s 2.8 of the SEPP Resilience, it is accepted that an assessment of the hydraulic (surface water) and hydrogeologic (groundwater) regime is fundamental to understanding any potential impact to wetland habitats associated with the site. A similar assessment is required to address the requirements of cl 7.9(3) of the PSLEP. My consideration of the potential impact to wetlands based on the concept proposal, is made consistent with ss 4.15(1) and 4.22(5) of the EPA Act.

355 It is accepted that the NR interchange, E-W road and precinct related stormwater infrastructure, are not confirmed in location nor design (and subject to future development consent). However, regard must be had to the likely positioning/design of this infrastructure, consistent with the concept proposal, and to be satisfied that their essential function will not cause environmental impact on the natural environment (of the wetlands and associated hydraulic systems), pursuant to s 4.15(1)(b) of the EPA Act. This consideration has both quantitative (water balance changes) and qualitative (water quality) elements.

356 It is understood from the documents that support the application that wetlands associated with the site hydraulically rely on both surface water runoff and groundwater recharge. Therefore, any changes to existing hydraulic conditions, including to the water balance and quality has the potential to alter associated habitats, and impact dependent species. Habitats along the drainage lines and within the wetlands are vulnerable to changes in hydraulic regimes, relying on balanced wetting and drying cycles, and water quality bounds.

357 Generally, the potential for impact to wetlands from the concept proposed in the application (and consistent future development of the precincts/roads) arises from changes in the existing hydraulic regime, both quantity and quality, and any resultant changes to the ecological habitat that supports the wetlands.

358 Mr McCotter expressed concern that there was insufficient detail on the location of stormwater works and structures that could potentially impact wetlands associated with the site. He noted contradictions in the indicative location of works shown in plans supporting the application, some suggesting they could potentially be located in the defined area (and proximity area) of wetlands.

359 Ms Collier expressed concern with regards to the sufficiency of detail to inform her understanding of the likely changes to groundwater contribution to Wetland 803, and potential changes to recharge flow volume/pattern of discharge. She also expressed concern relating to the potential for changes to surface water quality in the wetlands, based on unspecified erosion and sediment controls relating to the clearing. The lack of detail for the discharge pipe beneath Newline Road, likely requiring excavation in wetland area of 803 also raises concern.

360 The applicants' experts agree that there are likely (future) works within the proximity area of Wetlands 802 and 803.

361 Dr Martens concedes that the groundwater assessment provided in the joint expert report (Exhibit 8) is a preliminary consideration and that further detail would be required to support future development applications, pursuant to the requirements of s 2.8 of the SEPP Resilience. He assesses that the groundwater contribution to the wetlands associated with the site is likely limited, particularly when compared to the surface water (volumetric) contribution. Therefore, any interception of groundwater as a result of future development of the site would not likely cause any adverse impact to the hydrology or habitat of the wetlands.

362 The relevant considerations for the Court to assess the likelihood of adverse environmental impact to Wetlands 802, 803 and 804 resulting from

development of the site consistent with that conceptually proposed, considers the requirements of cl 7.9 of the PSLEP and s 2.8 of the SEPP Resilience.

363 I am not satisfied that the application, as a concept proposal with Stage 1 works, is supported by sufficient and detailed assessment, to reasonably assess the requirements of the PSLEP and SEPP Resilience. I have insufficient information to be satisfied with regards to the potential for adverse environmental impact to wetlands associated with the site based on development consistent with the concept proposal. Uncertainty remains on the likely location and functionality of the indicative design of stormwater infrastructure. There is an unassessed potential to impact the hydraulic regime that currently supports the habitat of Wetlands 802 and 803. As a consequence, there is potential for impact to reliant native flora and fauna, including endangered and vulnerable species, that is not well understood.

364 I find that the groundwater assessment supporting the application is simplistic, and not founded on any scientific data that is specific to the site. This assessment appears as an oversight, a 'preliminary advice', and primarily provided in response to the joint expert conference process.

365 The application, by admission of Dr Martens and Mr Wainwright in oral evidence, is not informed by any two-dimensional (2-D) hydraulic model that considers the existing and potential for change to hydraulic conditions of Wetlands 802 and 803, including groundwater/surface water connectivity and the water balance.

366 The application relies on a MUSIC model, a water quality assessment, which the applicants' experts (in their joint expert report in Exhibit 8) suggest is appropriate and useful to assess the broader catchment hydrology, where works are likely in the proximity area of a wetland. I however do not accept, nor am satisfied by this proposition. This is not the intent of a MUSIC model and there is insufficient information in evidence that would support this suggestion as being appropriate.

367 It is agreed by the experts that there is a likelihood for future stormwater and road works to be in the proximity area of Wetlands 802 and 803. There is no 2-D model that supports the application, and which assesses potential wetland

hydraulic/ecological impacts to Wetlands 802 and 803. There is no certainty to the functionality of the concept proposal or likelihood of adverse impacts to wetlands.

368 The applicants' experts pose that 2-D modelling of the western catchments and hydrology of Wetland 803 (and 802) is a requirement for future development applications. I do not accept the evidence of Messrs' Martens and Wainwright that 2-D modelling at this (conceptual) stage in the development of the site is unreasonable and unfeasible. It is rather a function of a lack of data and knowledge of the dynamics of the systems. Without even a conceptual understanding/model of the predevelopment hydraulic conditions for Wetlands 802 and 803, there is no certainty that the concept proposal or future development that relies on it, could function without causing adverse impact to wetlands or would require substantial changes to the concept proposal to become functional. I cannot be satisfied that there are no environmental impacts likely from a development that is consistent with the application. There is uncertainty with regards to the environmental outcomes resulting from future development of the site that is consistent with the concept proposal.

369 On this basis, I am not satisfied that the objectives of the relevant provisions of the PSLEP and SEPP Resilience are or can be addressed. I find that the hydraulics/hydrogeology, specifically relating to the quantity and quality of surface and ground water flows to (and from) the coastal wetlands is not sufficiently understood to assess the potential for adverse impact resulting from development relying on the application, pursuant to s 2.8(1)(b) of the SEPP Resilience.

370 The applicants' approach to understand and assess hydraulic conditions and impacts to the wetlands associated with the site is generally hypothetical, relying on a limited, desktop-based data set with no attempt to understand the existing conditions of hydrology and hydrogeology that influence wetland habitat and behaviour. There is insufficient understanding on the potential for impact from development of the site, as conceptually proposed, pursuant to cl 7.9(4) of the PSLEP and s 2.8(1) of the SEPP Resilience. The shape and location of the precincts, with indicative road and stormwater infrastructure, as

described in the proposed precinct plan (Figure 1) assumes, without any scientific basis, that there will be no adverse impact to the wetlands.

371 Whilst I accept that it is appropriate to defer the detailed design of stormwater related infrastructure (for the precincts and roads) to future development applications, there must however be sufficient understanding to have regard to the potential impact on wetlands resulting from development that is based on (and consistent with) the concept proposal. The application has not demonstrated, though the concept proposal that there is a minimisation of impact to wetlands and their habitats.

372 The application seeks consent to define the boundaries of the precincts (and CA), which inform and limit the location/size of internal development related infrastructure. It is recognised that the application seeks consent to clear the entire impact area. The application, through the concept proposal provides the framework to inform (constrain) future development and limit the potential location (and to some degree the size) of roads and stormwater infrastructure that will support future development of the precincts.

373 In consideration of the application, I am not satisfied that the requirements of s 2.8(1) of the SEPP Resilience and cl 7.8(4) of the PSLEP have been addressed.

374 In consideration of the requirements s 4.15(1) of the EPA Act, I am not satisfied that the application has sufficiently assessed the likelihood of impact to the environment associated with the wetlands, pursuant to s 4.15(1)(b). On this basis, I cannot be satisfied that the site is suitable for the development as conceptualised, pursuant to s 4.15(1)(c).

Have the relevant requirements for the provision of designated State public infrastructure been sufficiently addressed?

375 It is accepted that the Panel have issued a consent for the provision of water reticulation and sewerage system to service the site, as determined on 29 September 2020, with the notice of determination provided in Exhibit 5. The concept proposal describes the location for water (supply) storage, in areas dedicated within the CA. The experts do not dispute the suitability of these locations or that water and sewerage can be provided to the precincts on the

site, as part of future development applications. I am satisfied that the requirements for public utility infrastructure that is essential for the development of the KHURA are capable of being provided, when required, pursuant to cl 6.2 of the PSLEP.

376 The contention, as raised by the Panel, is that the application has not demonstrated that satisfactory arrangements for the provision of designated (and relied on) State public infrastructure has been or can be made before the subdivision of the land as part of the KHURA, pursuant to cl 6.1(1) of the PSLEP. The relevant State public infrastructure relates to the PH interchange and the stormwater diversion channel (hereafter the channel), which are described in the State VPA, and relied on by the concept proposal in the application. There is no contention that the application is required to provide this infrastructure. The issue relates to the reliance on this infrastructure to service the future development of the site that is initiated by the subdivision of the land forming part of the KHURA. The concept proposal is informed by this infrastructure.

377 Further to this, the Panel contends that pursuant to cl 6.1(2) of the PSLEP, the Director-General of DPIE (the D-G) has not provided certification (to Council) for satisfactory arrangements of designated State infrastructure, in the form of a Satisfactory Arrangement Certificate (SAC). This is required as part of the application because the application relies on subdivision of the land. It is the position of the Panel that as the application seeks the subdivision of the land into lots smaller than when the land was created as an urban release area, a SAC is required to support the application.

378 It is accepted that the construction of the PH interchange and channel, as described in the State VPA, will be the subject of separate Part 5 (of the EPA Act) applications, not yet applied. This infrastructure is relied on by the application, as described in the concept proposal, to service the site. This infrastructure will support the future development of the KHURA, to satisfy the objective of cl 6.1(1) of the PSLEP.

379 Based on the submission of Mr Robertson SC, it is understood that the applicants acknowledge the requirements of cl 6.1 of the PSLEP, however

consider that the SAC is appropriate to support future development applications, upon the subdivision of the precincts into residential lots. It is submitted that because the application under appeal does not seek the subdivision of land, cl 6.1 is not engaged, as outlined in an extract of the applicants submission below:

> "[197] Clause 6.1 (arrangements for designated State public infrastructure) does not apply as it relates to the granting of consent for subdivision. No subdivision is proposed by the concept DA.".

380 Mr Robertson SC further submits that prior to the hearing, the Panel had not made the applicants expressly aware of the need for a SAC to support the application.

381 The State VPA stipulates that 'certain land subdivision' in the KHURA cannot be granted consent until the Secretary has issued a Satisfactory Arrangements Certificate, pursuant to cl 6.1 of the PSLEP. However, there is no further explanation provided in this document to define the 'certain' land subdivision criteria.

382 It is agreed that the design and construction of the PH interchange and channel infrastructure are subject to an REF. It was confirmed during the hearing, based on communications from TfNSW in evidence, that the REFs for this infrastructure are currently in draft form, not yet exhibited. Therefore, the designated State public infrastructure described in the State VPA, and relied on by the application remains at a draft concept design stage.

383 In consideration of the application, it is important to firstly establish at what stage in the development of the site, as part of an urban release area, that satisfactory arrangements are to be made for the provision of designated State public infrastructure, and therefore cl 6.1 of the PSLEP is engaged.

384 The parties agree that the D-G has not provided a SAC in relation to development of the site, being part of the KHURA, pursuant to cl 6.1(2) of the PSLEP.

385 In the reasons for refusal of the application (Exhibit 5), the Panel assessed that the requirements of cl 6.1(2) of the PSLEP had not yet been satisfied. The

SoFC (Exhibit 9) and ASoFC (Exhibit 1) both contend that cl 6.1(2) of the PSLEP was not satisfied, without the provision of a SAC.

386 This was disputed as not being sufficiently clear or relevant to the application under appeal by Mr Robertson SC. The applicants amended SoFC in reply (Exhibit F) relies on Council's assessment report that indicates cl 6.1 of the PSLEP is not engaged by the application. This report suggests that a SAC is required for future development applications that seek to subdivide the precincts into residential lots forming part of KHURA.

387 As I have already determined the application seeks the subdivision of the land, I am satisfied that cl 6.1 of the PSLEP is engaged in the consideration of the application.

388 There is no evidence that the D-G has been contacted nor responded to address the requirements of cl 6.1(2) of the PSLEP relevant to the application.

389 It is accepted that prior to the land becoming part of an urban release area, the Port Stephens Local Environmental Plan 2000 (PSLEP 2000) was the relevant environmental planning instrument. The site, prior to becoming part of the KHURA, was zoned 1(a) Rural Agriculture, pursuant to cl 9 of the PSLEP 2000.

390 Pursuant to cl 12 of the PSLEP 2000, land that is zoned 1(a) cannot be subdivided unless for specified reasons, as follows:

> **12 Subdivision within rural zones generally**
>
> (1) A person must not subdivide land within any rural zone except:
>
> (a) for any of the following purposes:
>
> (i) the opening or widening of a public road,
>
> (ii) to change allotment boundaries in any way, but not so as to create additional allotments,
>
> (iii) consolidation of allotments,
>
> (iv) rectification of any encroachment on any existing allotments,
>
> (v) the creation of allotments corresponding to the parts into which a single allotment is divided by a public road, or
>
> (b) for the purpose of the creation of an allotment or allotments intended to be used for any one or more of the purposes (excluding dwelling-houses or dual occupancy housing) for which it may be used with or without the consent of the consent authority, or

> (c) in the case of land within a Rural Small Holdings zone—as permitted by clause 13.
>
> (2) Subdivision of land for a purpose specified in subclause (1) (a) does not have the effect of precluding development of the land for any purpose for which it might have been developed immediately prior to the subdivision (except in so far as the land has been taken for a road as referred to in subclause (1) (a)).

391 Clause 13 of the PSLEP 2000 does not specify a minimum lot size for land zoned 1(a). The parties agree that there was no minimum lot size applicable to the site, prior to the creation of the KHURA.

392 The parties did not dispute that cl 6.1 of the PSLEP would be engaged upon the subdivision of the land as part of the KHURA. However, Mr Robertson SC went further to state in his written submission filed on 14 April 2023 at [28], that cl 6.1(2) of the PSLEP does not apply to the application, irrespective of whether subdivision was sought, because there was no minimum lot size provision that applied to the site as described in the PSLEP 2000.

393 Clause 6.1(2) of the PSLEP has two discrete tests to requiring a SAC, and I find that the lack of a provision establishing a minimum lot size in the PSLEP 2000, does not negate the requirement for a SAC in the development on the site as part of the KHURA. It is the second test of cl 6.1(2) that is relevant to the application, being that the land "… became part of, an urban release area". I consider the intent of cl 6.1 of the PSLEP is to ensure that for future intensive development on lands, within a designated urban release area, such as the KHURA, the land is capable of being serviced by appropriate and sufficient State public infrastructure to meet the needs of future residents.

394 It is an accepted fact that the land became part of an urban release area and that the application is not supported by a SAC, issued by the D-G. Based on my assessment of the application, a SAC is necessary to support the application, to satisfy the requirements of cl 6.1(2) of the PSLEP.

395 Consent cannot be granted for the subdivision of the land within the KHURA without the D-G providing a SAC as it establishes the provision of designated State public infrastructure to meet the future development needs of the site.

396 Further to this, there is no certainty that a SAC would be provided based on the concept proposal, due to the indicative and draft nature of the channel design,

as explained below. The draft nature of the PH interchange relied on by the concept proposal is also in contention, which I address below.

397 I am not satisfied that the objective described in cl 6.1(1) of the PSLEP has been (or could be for future applications) sufficiently addressed by the application. The application has deferred the requirements of cl 6.1 to later stages in the development of the site, which I find is not reasonable. There is insufficient detail to address the relevant jurisdictional requirements in consideration of the application.

398 As explained below, the potential for environmental impact resulting from the preferred alignment of the channel, on which the application relies to ensure the function of the site for future residential development, is uncertain and does not satisfy s 4.15(1)(b) of the EPA Act.

PH interchange

399 As described in the State VPA, there is a 'development cap' on future residential subdivision of the site until the PH interchange is completed, capped at 250 (residential) lots, as confirmed by communications provided in evidence from TfNSW. Until the PH interchange is completed, future residential lots below the initial development cap must have access to Newline Road. The applicants have sought to resolve the 'pending nature' of this infrastructure by the provision of a condition (draft condition 12, Exhibit L) that limits the provision of a subdivision certificate on the creation of residential lots (in the precincts) until the PH interchange is constructed. This approach remains in dispute between the parties.

400 Upon the opening of the PH interchange, the State VPA requires that the existing access road to the Pacific Highway, currently used by the RDA, is to be closed, with alternative access provided. It is understood from oral evidence of the applicants' experts that it is proposed when the existing access road is closed, RDA will be provided access to their site via a new connection to the E-W road.

401 It was explained by the experts that construction access to the site prior to the completion of the PH and NR interchanges would be via the existing access road to the Pacific Highway and possibly via an existing service road (of

unconfirmed condition) that runs south of Wetland 803 from Newline Road. The applicants' draft conditions (in Exhibit L) propose that this service road around the landfill be upgraded to an all-weather road, should access be required prior to the opening of PH and NR interchanges.

402 Consideration of the evidence indicates that the application is supported by sufficient detail on the design and location of the PH interchange, and that a SAC would likely be issued (upon application), pursuant to cl 6.1(2) of the PSLEP. However, without the SAC being issued from the D-G to support the application, I am not satisfied that the PH infrastructure has satisfied the objective of cl 6.1(1).

403 Based on the evidence, I am satisfied that the PH interchange will be designed to address known flood risk, pursuant to cl 6.6 of the PSLEP.

404 I am satisfied that the proposed PH interchange is capable of being designed (as described in the draft REF) to a standard to address the requirements of cl 6.5 of the PSLEP. I find that there is sufficient detail supporting the application that the PH interchange could cater for the additional traffic load and be designed in a location that will ensure its effective function. The location and design of this infrastructure is not contentious.

405 Further to this, I am satisfied that the upfront funding by third parties for this infrastructure is expressed adequately in the State VPA, also relying on development contributions by the developer of the land at designated milestones.

406 In consideration of the proposed design and the agreed conditions of consent, I am satisfied there will unlikely be additional burden to traffic load on the Pacific Highway, except perhaps by construction traffic, until the PH interchange is constructed, and future residential lots subdivision are certified.

Stormwater Diversion Channel

407 The channel is a designated State public infrastructure that is required to divert stormwater from the future development footprint of the KHURA, away from the Grahamstown Dam, to protect its water quality. The channel is subject to a separate Part 5 (EPA Act) approval, not yet applied.

408 The location of the (stormwater drainage) channel relied on by the application is described in the draft REF that is in evidence, as being preferred along an alignment predominantly east of the Pacific Highway. This is extensively on HWC land. This infrastructure is intended to direct treated stormwater runoff from the eastern precincts on the site, away from the Grahamstown Dam in flood events up to 0.2% AEP, and then towards Wetland 804. It is considered essential infrastructure in the residential development of the site/KHURA.

409 The experts do not agree that the PH interchange, as described in the draft REF, can be constructed as designed, without the channel being constructed. The experts also do not agree whether there are likely to be unacceptable ecological impacts resulting from the channel design relied on by the application, based on the lack of ecological assessment on the HWC land. This is raised as an issue raised by HWC in their communications with the applicants in assessing the application. It remains in dispute whether the concept proposal is reasonable without a more definitive alignment of the channel.

410 According to Mr Grech, the construction and completion of the PH interchange could proceed without (independently of) the channel being constructed. Also, the channel alignment relied on in the concept proposal, described as option (4) in the draft REF, was the preferred option of (the applicants and) the working committee that included HWC, and which reviewed the alignment options as part of the REF process.

411 The experts agree there is a requirement for the channel in the (future) development of the site and KHURA. They however dispute whether the channel could or should ultimately be located (partially) on the applicants' land, as posed in option 3 of the draft REF. This option (3) would result in a substantial loss of land from the proposed eastern precincts, and would require a modification to the concept proposal to support future development.

412 The indicative internal design of stormwater infrastructure, described in the concept proposal to service the site, relies for the eastern precincts, on the preferred location of the channel, being option 4 in the draft REF. The concept proposal informs future development application/s, that will detail the design of

appropriate water management strategies such as rainwater harvesting, diversion, biofiltration and bioretention basins to manage stormwater, and which are supported by the channel.

413 It is not disputed by the experts, and I concur, that there is sufficient area of land within the (eastern) precincts to accommodate the required stormwater management infrastructure, and that the application has appropriately considered indicative locations for the internal management of stormwater.

414 The issue however relates to the uncertainty in the ultimate location and design of the channel, and whether the channel located predominantly on HWC land addresses the requirements of cl 6.1 of the PSLEP.

415 Although the (Part 5) approval for the channel does not form part of the application, in consideration of s 4.15(1) of the EPA Act, the Court must consider the likelihood of impact resulting from a concept proposal relying on the channel in its proposed alignment.

416 HWC raised a concern regarding the location of the preferred (option 4) channel alignment in a letter dated 8 December 2022 (Exhibit 5). This letter was provided in response to their review of the application, draft REF and a draft biodiversity assessment by Arcadis, dated September 2019. Pursuant to s 5.16(3) of EPA Act, HWC is a relevant authority that must be consulted, and their issues had regard to, prior to (Part 5) approval of the channel infrastructure.

417 HWC are concerned by the draft nature of the documents that inform the concept proposal and that their issues raised previously, specifically with regards to the potential for impact to threatened species and biodiversity values have not been sufficiently addressed. In this letter, HWC remains unsatisfied that “environmental impacts arising from the construction and operation of the stormwater channel have been avoided, minimised, mitigated and offset to the extent that they are acceptable”. At the date of the hearing, HWC had not provided their in-principle support to the preferred alignment (option 4) of the channel.

418 In consideration of the evidence, I assess that there is reasonable uncertainty with regards to the likely location and ultimate design of the channel, and that this uncertainty impacts a functional element of the concept proposal. The location and design of the channel supports the development of the site and KHURA. The unassessed potential of environmental impact to ecological habitats around the Grahamstown Dam, based on the preferred channel location, is unreasonable. I therefore cannot be satisfied that the site is suitable for development on the site consistent with the concept proposal and relied on by the application, pursuant to s 4.15(1)(c) of the EPA Act.

419 The State VPA provides funding and some responsibility arrangements for the design of the channel, although not responsibility for its construction, unlike for the PH interchange, which has more certainty in its design and construction. Significantly, the preferred channel design and location are still the subject of uncertain environmental outcomes, that could lead to a change in its alignment, thereby impacting the definition of the precincts described in the concept proposal. A modification of the concept proposal is possible if the channel alignment was substantially changed. This creates uncertainty.

420 It is agreed by the parties that the development of the KHURA cannot proceed without the designated State public infrastructure as described in the State VPA, including the channel.

421 I am not satisfied the D-G would issue a SAC for development of the site, consistent with the concept proposal, until there is reasonable certainty to the location and design of the channel. I find that the objective of cl 6.1(2) of the PSLEP, to provide satisfactory arrangements for the provision of designated State public infrastructure prior to subdivision, is not satisfied. The design and location of the channel are not sufficiently certain and satisfactory arrangements have not been provided prior to the subdivision (and intensification) of the land, as relied on by the application. Based on the draft and contentious design of the channel, there remains uncertainty that a SAC would be issued by the D-G to satisfy cl 6.1(2).

422 The channel alignment in its preferred location is a fundamental component of the conceptual proposal and application. The boundaries that define the

precincts and CA rely on the channel alignment and indicative stormwater management. A change in the channel alignment, specifically moving further onto the site, could require precinct boundary changes and reconfiguration of the internal stormwater services on the site. This could also result in a deficit of developable land available for future residential/commercial use in the eastern precincts, affecting the lot yield of the KHURA.

423 Due to this assessed uncertainty in the location of the channel, it is unreasonable for the concept proposal and application to rely on the channel in its preferred alignment. The concept proposal seeks to establish the development footprint that is potentially unable to function for the purpose of stormwater management. Clause 6.1(1) of the PSLEP is not satisfied.

424 The basis for my consideration above, is that the application seeks the subdivision of the land, as previously determined. If I am wrong on this, I would also not be satisfied that satisfactory arrangements for designated State public infrastructure could be made prior to the (future) residential subdivision of the land as part of the KHURA, based on the draft nature of the channel design and ecological concerns raised by HWC. Clause 6.1 of the PSLEP is not satisfied on this basis.

425 The applicants posed conditions attached to a consent to address the uncertainty relating to the alignment of the channel, Condition 12 (Exhibit L) and deferred commencement Condition 2 (Exhibit 6), described below:

> "[12] A subdivision works certificate that would involve the creation of residential lots must not be issued until the date that is 9 months prior to any scheduled date for the practical completion of the "Road Works" as notified by TfNSW as referred to in the Voluntary Planning Agreement between the Minister for Planning and Public spaces, Roads and Maritime Services, Kingshill Development No 1 Pty Ltd and Kingshill Development No 2 Pty Ltd (State VPA)."
>
> "[2] Evidence of an approval pursuant to Part 5 of the Environmental Planning and Assessment Act 1979, or other relevant authority, for the construction of the Kings Hill Stormwater Channel described generally in the draft "Kings Hill Stormwater Channel, Review of Environmental Factors" prepared by Arcadis for the Roads and Maritime Services dated September 2019 shall be submitted to the Council..."

426 This approach to address uncertainty was described by Ms Reid as being a 'Grampian' style condition, as explained by Preston CJ in *Mullaley Gas and*

Pipeline Accord Inc v Santos NSW (Eastern) Pty Ltd (2021) 252 LGERA 221; [2021] NSWLEC 110 at [150], below:

> "[150] Condition A9 is what is referred to as a Grampian condition, after the name of the case in which a condition of this type was described: *Grampian Regional Council v Secretary of State for Scotland and City of Aberdeen District Council* (1984) SC (HL) 58; [1984] JPL 590. A Grampian condition prevents the development the subject of the consent from being commenced until a specified event (such as the construction of a bridge or an intersection) has taken place, even though that event might not be wholly within the power of the applicant for consent to bring about: see *Grampian Regional Council v Secretary of State for Scotland and City of Aberdeen District Council* at 67 and see also *McCarthy v Mulwaree Shire Council* (1992) 78 LGERA 158 at 171; *British Railways Board v Secretary of State for the Environment* [1993] 3 PLR 125 at 134; [1994] JPL 32 at 32, 38; *Newcastle & Hunter Valley Speleological Society Inc v Upper Hunter Shire Council and Stoneco Pty Limited* (2010) 210 LGERA 126 at 236; [2010] NSWLEC 48."

427 Whilst I accept that the design/construction of the channel (and PH interchange) is beyond the control of the applicants, the degree of uncertainty as to the location and ultimate design of the channel being built in a timely manner, together with the unassessed potential for environmental impact is such that a consent to the application cannot rely on the condition/s posed by the applicants. This approach is consistent with that adopted by Justices Priestley, Clarke and Meagher in *Mison v Randwick Municipal Council* (1991) 23 NSWLR 734*,* whom held that a condition of consent cannot have the effect of significantly altering the development that consent is granted.

428 I consider that there is an unresolved possibility that the channel alignment could be relocated within the site, and that this would result in a significant change to the shape and size of the eastern precincts, that could also impact the shape of the CA boundary. Such a change to precinct boundaries would likely require a modification of the concept proposal and proposed precinct plan (Figure 1), which although is legally feasible, is not a sound basis on which to grant consent to the application.

429 On this basis it is my assessment that the application has a likelihood of environmental impact, with the channel on land disputed by HWC. The application does not satisfy subss 4.15(1)(b) and (c) of the EPA Act.

Does the application result in the orderly and economic use in the development of the land?

430 The contention as raised by the Panel is that the application does not result in the orderly or economic use in the development of the land, primarily due: to the extensive clearing proposed by the Stage 1 works; and that the development footprint and subdivision patterns in the precincts are neither logical nor cost effective development, pursuant to cl 6.3(1) of the PSLEP.

431 The submission of the Mr Robertson SC for the applicants is that the application does not propose 'wholesale clearing', as described by the Panel in its contentions, rather a well-planned and staged clearing process that is responsive to ecological assessment.

432 Development of the KHURA, and of the site within the KHURA, is subject to the provisions of the PSDCP, and specifically Part D14. Part D14 provides a generalised development control plan for the Kings Hill-Raymond Terrace area, and was prepared in consideration of cl 6.3(3) of the PSLEP, below:

> **6.3 Development control plan**
>
> (1) The objective of this clause is to ensure that development on land in an urban release area occurs in a logical and cost-effective manner, in accordance with a staging plan and only after a development control plan that includes specific controls has been prepared for the land.
>
> (2) Development consent must not be granted for development on land in an urban release area unless a development control plan that provides for the matters specified in subclause (3) has been prepared for the land.
>
> (3) The development control plan must provide for all of the following—
>
> (a) a staging plan for the timely and efficient release of urban land, making provision for necessary infrastructure and sequencing,
>
> (b) an overall transport movement hierarchy showing the major circulation routes and connections to achieve a simple and safe movement system for private vehicles, public transport, pedestrians and cyclists,
>
> (c) an overall landscaping strategy for the protection and enhancement of riparian areas and remnant vegetation, including visually prominent locations, and detailed landscaping requirements for both the public and private domain,
>
> (d) a network of active and passive recreation areas,
>
> (e) stormwater and water quality management controls,

(f) amelioration of natural and environmental hazards, including bush fire, flooding and site contamination and, in relation to natural hazards, the safe occupation of, and the evacuation from, any land so affected,

(g) detailed urban design controls for significant development sites,

(h) measures to encourage higher density living around transport, open space and service nodes,

(i) measures to accommodate and control appropriate neighbourhood commercial and retail uses,

(j) suitably located public facilities and services, including provision for appropriate traffic management facilities and parking.

(4) Subclause (2) does not apply to any of the following developments—

(a) a subdivision for the purpose of a realignment of boundaries that does not create additional lots,

(b) a subdivision of land if any of the lots proposed to be created is to be reserved or dedicated for public open space, public roads or any other public or environment protection purpose,

(c) a subdivision of land in a zone in which the erection of structures is prohibited,

(d) proposed development on land that is of a minor nature only, if the consent authority is of the opinion that the carrying out of the proposed development would be consistent with the objectives of the zone in which the land is situated.

433 Amongst other requirements, Part D14 of the PSDCP sets out the objectives and controls relevant to a precinct plan, with a recognition that precinct plans will "be included as future amendments to this DCP; or be provided as a staged development application for each development precinct." The proposed precinct plan relied on by the application is a response to this requirement. The objectives for a precinct plan are described in Part D14, below:

"•To ensure consideration is provided to the relationship between residential, commercial, mixed use, open space, biodiversity and important infrastructure, such as the Pacific Highway and Grahamstown Dam

• To ensure development occurs in a logical and coordinated manner

• To ensure development is efficient and results in cost effective infrastructure and adequate access to services by residents

• To ensure the town centre facilitates a sense of place and community while complementing the economic and community function of the existing higher order regional centre of Raymond Terrace

• To ensure a hierarchy of centres within the Kings Hill urban release area with a high quality of design, a high amenity public domain and excellent connectivity to the adjacent residential areas"

434 The objective of cl 6.3(1) of PSLEP is “to ensure that development on land in an urban release area occurs in a logical and cost-effective manner, in accordance with a staging plan and only after a development control plan that includes specific controls has been prepared for the land”. This objective is consistent with the objectives described above for Part D14 of the PSDCP.

435 It is recognised that the Kings Hill-Raymond Terrace area DCP, described in Part D14 of the PSDCP, is generalised in form, although is considered sufficient to address the requirements cl 6.3(2) of the PSLEP.

436 The application refers to a ‘proposed precinct plan’ (Figure 1), which is intended to support more detailed ‘residential precinct plans’ in future development applications.

437 I am satisfied that the application does not need to rely on more detailed subdivision patterns within each precinct, which is consistent with consideration of a (s 4.22 of the EPA Act) concept proposal. This level of information will rightly be provided in future development applications relating to the future residential subdivision of the precincts.

438 However, based my consideration of the evidence, I find that the application does not satisfy the objective of cl 6.3(1) of the PSLEP. I assess that the lack of certainty of the precinct/CA boundaries, due to ecological considerations of the channel alignment not yet assessed, as described above, and the fact that clearing is sought that relies on these boundaries. The proposed clearing of the impact area, prior to having confidence in the boundary of the precincts, that have a direct relationship to the CA boundary, is neither logical nor cost efficient. I consider the seeking of consent for the total clearing of the precincts before there is certainty to precinct boundaries is pre-emptive and not scientifically sound.

439 In consideration of the scheduled timing of the clearing closely coincident with enhancement of the CA, as described in the staging plan (Figure 2), I assess that the application relies on an unnecessarily complex and confusing staging of actions/works. I am not satisfied that this approach satisfies s 4.15(1)(b) of the EPA Act.

440 Based on my assessment above, I am not satisfied the application has sufficiently demonstrated the application is suitable for the site, pursuant to s 4.15(1)(c) of the EPA Act.

441 On this basis, I find that the application is not in the public interest, pursuant to s 4.15(1)(e) of the EPA Act.

Conclusion

442 In determining this application, I find that the application under appeal does not satisfy the requirements of the relevant instruments for consideration, namely the EPA Act, TSC Act and the PSLEP. The reasons for my determination, are described above, and principally relate to: the potential for significance of effect to native fauna; insufficient certainty on the provision of designated State significant infrastructure; likelihood of environmental impact; complex and disorderly development seeking to overcome potential adverse impacts; site not demonstrated as suitable for proposed (and future) development; and not in the public interest.

443 I determine to refuse the grant of consent for Development Application 16-2018-772-1, pursuant to s 4.16(1)(b) of the EPA Act.

Orders

444 Consequently, the orders of the Court are as follows:

(1) Leave is granted to rely on amended plans and documents that amend Development Application 16-2018-772-1, as described in Exhibits P, Q and R, and parts of Exhibits A, B and D.

(2) The appeal is dismissed.

(3) Development Application 16-2018-772-1, relating to a concept proposal to define areas for residential precincts and conservation, and Stage 1 works to establish a conservation area and clear precinct areas for future development, on Lot 41 Deposited Plan 1037411, also known as 3221 Pacific Highway, Kings Hill, and Lot 4821 Deposited Plan 852073, also known as 35 Six Mile Road, Kings Hill is refused.

(4) The exhibits are retained.

Sarah Bish

Commissioner of the Court

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