

Our ref: 19014

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Date: 3 August 2020

Adam Smith
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Via email: adam.smith@app.com.au

Dear Adam,

**Kings Hill Development's Concept DA-2018-772-1
Response to Public Submissions**

Thank you for providing RPS with the opportunity to consider and address public submissions made in relation to Concept Development Application 16-2018-772-1.

This response follows our first Community Engagement report dated 4 July 2019, which was prepared to document the design, implementation and reporting of two community drop-in information sessions voluntarily held by Kings Hill Developments (KHD) to inform the local community of the Concept Development Application when first publicly exhibited by Port Stephens Council in June/July 2019.

This report provides a response to all public submissions made during each of the exhibition/notification periods (June/July 2019 and April 2020). A formal response to submissions has been withheld until now, given adjustments to the details of the proposal as a consequence of initial public comments and Council and state government agency reviews since the DA was first lodged in November 2018. Revised Concept DA documentation and plans were lodged with Council on 27 July 2020, with this response to submissions aimed at assisting Council and the JRPP in their assessment of the Proposal.

The submissions have been analysed by the KHD team and redacted to protect personal information by Port Stephens Council.

Major concerns from the Concept DA submissions included:

- Impacts on flora and fauna including Koala habitat
- Impacts on local waterways including fish habitat
- Impacts of construction noise
- Impacts of construction dust and particles in the atmosphere
- Traffic congestion
- Wear and tear on local roads, including sealing local roads
- Safety concerns through increased traffic

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Major themes of support from the submissions included:

- Management of relationship to nearby waste facility and observation of related legislation
- Realisation of social, economic and design benefits from planning initiated by Council and State Government partners since the early 1990s
- Support of recent NSW Government decisions to manage waste water via the proposed Grahamstown Dam Stormwater Diversion Channel and URA Pacific Highway Interchange as significant milestones for the development of the project.

Submissions – detailed table of themes

Below is the detail of the themes and mitigation strategies to be addressed in each individual submission for Development Application 16-2018-772-1.

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No.	Submission date	Concerns and themes listed	Mitigation strategy
Individual Submission Name Redacted	Submission A 15 April 2020	<p>Location of Koala fence</p> <p>Access for fire fighting</p> <p>Water flows</p> <p>Security</p>	<p>The proposed Koala fence and access for fire management is shown in Figure 2.8 of the SIS. The fence is not in common with rural zone land to the west/ north of the development nor does it run alongside Six Mile Road.</p> <p>The Conservation Area is to be managed in accordance with a Biodiversity Management Plan, which shows the tracks and trails and their classification for use by emergency vehicles such as those used by the Rural Fire Service. These tracks and trails are to be maintained to a standard befitting their use.</p> <p>Access to the Conservation Area is to be limited to the manager of this area. Keys will not be freely available on this basis.</p> <p>Water management is not proposed in the Conservation Area to an extent that would otherwise interrupt or alter flows onto adjoining rural lands in the north and west.</p>
Suez	Submission B 9 March 2020	<p>Landfill gas migration</p> <p>Consideration of suitable buffers</p>	<p>KHD has consulted with Suez to understand the issues and to identify the options available to resolve the concerns noted. At this stage, KHD has taken advice from a Landfill Gas Migration specialist within Douglas Partners who considers there is no likelihood of gas migration (now or in future) given site specific factors such as the local topography, the site geology, and the proximity of the landfill and associated floor to the R1 zoned land. Nonetheless, as a precaution, KHD has commissioned Douglas Partners to install Landfill Gas monitoring wells along the boundary with Suez. Two (2) rounds of results will be available before the Concept DA is determined.</p> <p>KHD supports taking this step to ensure that the future community of the URA is not impacted by the activities of the SUEZ facility. Similarly, KHD will seek the support of Suez to ensure that both current and future activities are compliant with Odour, Gas, Dust</p>

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			and Noise emission standards, and do not impact on the environment, the amenity, and the future community of Kings Hill.
Hunter Bird Observers Club	Submission C 1 April 2020	<p>Incorrect results</p> <p>Habitat loss</p> <p>Bush fire impacts</p> <p>Buffer adequacy</p> <p>Indirect impacts on wetland birds</p> <p>Revegetation conflicts</p>	<p>The SIS acknowledges the results of monthly surveys performed by the members of the HBOC around Wetland 803, which is a water body located on private land. The SIS findings are consistent with these results. It is unclear what HBOC means by the statement 'incorrect results'.</p> <p>The SIS presents a set of comprehensive targeted surveys for threatened and non-threatened bird species, carried out in accordance with methodology specified under Chief Executive Requirements (CERs) over a long period. It acknowledges HBOCs monthly survey results of Wetland 803 located on private land, notwithstanding that the HBOCs results can only be considered anecdotal for they are not based on a specified or documented methodology, and the observations infer trespass on to private land (if the survey results are to be taken to be properly carried out and as comprehensive as those carried out under the SIS).</p> <p>Nonetheless, the SIS has assessed the phased loss of habitat and determined the impact on affected threatened bird species to not be significant. This is supported by a:</p> <ul style="list-style-type: none"> • Landscape and IBRA subregion analysis with the impact not occurring in an overcleared landscape (habitat loss is not having a substantial cumulative impact in the local area and region) • • The retention, management and in-perpetuity protection of local 'like' habitat of sufficient size and value to maintain local populations of threatened and non-threatened bird species (i.e. Conservation Area) • The lower portion of the NSW North Coast Bioregion (south of a line from Smiths Lakes to Barrington Tops) is largely devoid of the effects of the 2019-2020 bush fires. Approximately 50% of this area is naturally vegetated with the Kings Hill proportion of this native vegetation being ~0.08%. The progressive loss of native vegetation over an 8+ year timeframe is countered by an in-perpetuity protection of like habitat that exceeds the impact, with this loss not likely to have an adverse impact on the availability of habitat for threatened or declining birds at the regional scale

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			<p>The SIS is not required to assess the migratory species mentioned (i.e. Sharp-tailed Sandpiper, Marsh Sandpiper, Latham's Snipe and Common Greenshank) as they are to be separately assessed under the <i>Environment Protection and Biodiversity Conservation Act 1999</i> (EPBC Act). This is consistent with directives in the Chief Executive Requirements (CERs).</p> <p>The Painted Snipe was not identified by the CERs as being a subject species. Surveys performed for wetland birds have not identified this species within the subject site or study area. There are no recent historic records of this species within the study area. The Proposal is not having an adverse impact on this species and its habitat, rather, the Proposal is retaining and protecting habitat for this species.</p> <p>An assessment of the Black-necked Stork is provided in the SIS. The assessment concluded that the Proposal is not likely to have a significant impact on this species noting that no area of habitat is to be removed or adversely impacted to the detriment of the species. Habitat within the subject site is limited to occasional foraging habitat.</p> <p>Latham's Snipe is a Commonwealth listed migratory species. It is not listed under the TSC Act. Assessment is therefore not required for this species in the SIS. This species is to be separately assessed under the EPBC Act. This is consistent with directives in the CERs.</p> <p>The Proposal acknowledges and accepts the EcoBiological (2009) recommendations endorsed by PSC including "a 50 m buffer around the southern wetlands". This buffer specification has been applied around wetland 803.</p> <p>Surveys performed for the SIS and separately by HBOC members monthly since 2016, and less frequently prior to this date, have not identified any frequent or sustained usage of wetland 803 by threatened birds (i.e. rare visitations by Black-necked Stork). The wetland habitats are to be protected in perpetuity and managed to minimise any indirect impacts. Revegetation works are to reinstate the currently cleared periphery of wetland 803.</p> <p>The use of a boardwalk on the periphery of the wetland is passive recreation and is not for equestrian use. The use of this boardwalk is not likely to have an adverse impact on threatened species. The walking zone will be clearly marked and managed to prevent inappropriate use and 'buffer creep'.</p>

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			<p>Prior to European settlement, Wetland 803 would have been surrounded by tall vegetation. The currently cleared state is a reflection of historic land clearing events. Revegetation works proposed seek to re-instate the vegetation structure that was once naturally surrounding wetland 803.</p>
EcoNetwork – Port Stephens Inc.	Submission D 10 April 2020	<p>Loss of threatened species habitat</p> <p>Impacts on the Koala</p>	<p>The SIS has assessed all affected species as per the CERs and in accordance with the 7 part test to determine if the Proposal is likely to have a significant impact on these species. Section 8 provides these assessments, which concludes that the Proposal is not likely to have a significant impact on threatened species and ecological communities. This assessment conclusion is based on the impacts of the Proposal, as described in the DA and in Section 2 of the SIS, and the amelioration measures outlined in Section 7 of the SIS. The SIS described the establishment and maintenance of an in-perpetuity Conservation Area comprising like for like habitats. It is expected that this provision will contribute to the ongoing persistence of local viable populations of affected threatened species.</p> <p>The SIS has appropriately considered the effects of the 2019-2020 bush fires on the Koala and are noted in Section 8.2.20 of the SIS.</p> <p>The Koala is expected to continue utilising habitat within the Conservation Area and lands north and south of Kings Hill as part of the 'Kings Hill hub' (BioLink 2019 as cited in the submission). The Conservation Area will support the ongoing persistence of a local population of the Koala by contributing ~221 ha of suitable habitat for this species in perpetuity. BioLink describe a minimum habitat requirement of 900 ha of secondary habitat within a 'hub' for the ongoing persistence of at least 50 animals. The direct and/or cumulative impacts of the Proposal will not cause the area of habitat required by the Kings Hill hub to fall below or be separated to an extent that would trigger this threshold (see Sections 5.3.23 and 8.2.20.4 of the SIS and Section 2.5.3.7.3 of the BMP).</p> <p>The SIS demonstrates a commitment to the protection of Koala habitat using Koala fencing, bridges and grids. Wildlife connections are to be maintained using underpasses where required. The Proposal makes provision for the maintenance/improvement of habitat by enrichment plantings within the Conservation Area in addition to revegetation works on treeless lands around wetland 803 and elsewhere in the Conservation Area. Revegetation of detention basis is also proposed for the</p>

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			benefit of the Koala. A no net reduction outcome is demonstrated with a net gain predicted through enrichment and revegetation works.
Port Stephens Koalas	Submission E 10 April 2020	<p>Effects of bush fires</p> <p>Listing status</p> <p>Koala hubs and ARKS</p> <p>Genetics</p> <p>Impact avoidance, minimisation and mitigation</p> <p>Threatening processes</p>	<p>Point 3 of the submission correctly notes that the 2019 bush fires had a varying effect on 'Areas of Koala Significance' (ARKS), with the Kings Hill site associated with the Wang Wauk SF ARKS. The Wang Wauk SF ARKS has a total area of 174,864 ha with moderate resilience and security (p373 of the SIS) and was not adversely impacted by recent fire events. The Proposal will both conserve 0.01% of the total area of vegetation in this ARKS and reduce it by 0.09%; with the combined effect not having an impact and will not threaten the moderate resilience and security status of Wang Wauk SF ARKS.</p> <p>Therefore, the assessment assumptions adopted in BioLink's Koala report for the Kings Hill project remain valid and unaffected by the effects of the 2019 bush fires. BioLink's findings for the Kings Hill site form a reliable resource for the management of impacts by the Proposal. The Proposal has placed weight on the advice provided by BioLink (see Appendix G of the SIS), with assessment conclusions founded on this advice.</p> <p>Point 7 of the submission correctly notes the genetic links that exist between Koalas at Kings Hill and those that occur at Barrington Tops and Port Stephens (and all lands there in between). This area wholly includes the Wang Wauk SF ARKS, which is described as having moderate resilience and security (p373 of the SIS) and was not adversely impacted by the 2019-2020 bush fires. This genetic link support the assumption that Koala population that the Kings Hill site forms part of is large, well-represented in the National Park estate and comprises local populations with moderate resilience and security. The Proposal will retain Koala habitat within the local area without jeopardising the minimum habitat area and type requirements for a source hub (i.e. >900 ha of secondary habitat – see Appendix G of the SIS). Section 8.2.20 of the SIS states that the residual area of secondary habitat available to the Kings Hill Koala hub after completion of the Proposal will likely be ~1,225 ha. Impact avoidance has excluded areas of high value habitat from the Proposal footprint. Further, ~19 ha of revegetation works aim to establish high value Koala feed trees (i.e. Swamp Mahogany, Forest Redgum, Tallowwood, Grey Gum and Grey Box) with much of these revegetation works producing primary Koala habitat, which has a substantially greater carrying capacity. The</p>

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			<p>revised 7 part test in Section 8.2.20 concluded that the Proposal is not likely to have a significant impact on a local population of the Koala.</p> <p>Point 16 correctly notes the unutilised habitat capacity available to the Koala at the Kings Hill site. BioLink (Appendix G) note the site has a low Koala density. These factors support the potential for managed habitat loss as described in the Proposal (i.e. impact avoidance, minimisation and mitigation). The quantity and value of remaining habitat available to the local Koala population will not diminish the 'source' status applied to the Koala hub at Kings Hill (i.e. >900 ha of available supplementary koala habitat). As stated in Section 8.2.20 of the SIS, it is concluded that the Proposal would not result in a significant impact on the Koala such that a local viable population would go extinct.</p> <p>Point 19 incorrectly asserts that Koala movements currently occurs across the Pacific Highway between Kings Hill and the western side of Grahamstown Dam. A Koala fence occurring on the eastern side of the Pacific Highway is a formidable barrier to the Koala along this section of the Pacific Highway. Currently, the connection between Kings Hill land Grahamstown Dam west is tenuous with crossing attempts likely to result in mortality. Conversely, the Proposal makes adequate provision for a north-south movement corridor that links to land in the south that is owned by HWC where future conservation initiatives are being planned (i.e. Biodiversity Stewardship Sites). The SIS makes mention of offsite improvement measures (see Section 7.1.2.1.3 of the SIS) where a fauna movement underpass aligned to the former Irrawang Spillway would serve to improve east-west genetic flow. While not part of the Proposal, this additional measure is being considered by TfNSW as part of a broader initiative to manage the Koala within the local area.</p> <p>Points 20-22 refer to the effects of threatening process on the Koala. The submission fails to acknowledge the importance of Koala fencing, bridges and grids detailed in the Proposal description, which collectively have the purpose of segregating Koalas from the urban landscape where these threatening processes exist. Further, there is no acknowledgement of the benefits of having a managed in-perpetuity Conservation Area where habitat quality is to be maintained for the benefit of the Koala. The conclusion made in the submission is unsupported as the key threatening process relevant to the Koala at Kings Hill have been adequately addressed in the Proposal description with</p>

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			<p>the SIS concluding that the Proposal is not likely to have a significant impact on threatened species including the Koala (see Section 8.2.20 of the SIS).</p> <p>Points 25 incorrectly contends that there is a greater proportion of PKFTs in the proposed development site than the Conservation Area. The Conservation Area contains ~221 ha of secondary Koala habitat with the Proposal footprint comprising 152 ha of secondary Koala habitat.</p> <p>Point 26 incorrectly contends that the impact avoidance areas are of lower value for the Koala. It also incorrectly contends that the 'narrow corridors' don't appear to lead anywhere. These corridors are fenced and have road underpasses at their terminus to allow movement to lands south of Kings Hill as well as provide access to Swamp Mahogany plantings in detention basins (i.e. primary habitat). The corridors will also provide important refugia during hot summers.</p> <p>Point 28 highlights the importance of having a long term perspective in the management of threatened species. Forest modification across NSW through a number of land use practices has often resulted in the reduction of habitat suitability for the Koala. The enrichment works proposed are a reflection of this historical interference in Koala habitat, with the outcome expected from these works being a further increase in the carrying capacity of habitat locally for the Koala. Section 7.1.2.1.1 of the SIS highlights the potential landscape scale benefit of this type of land management for the Koala.</p> <p>Point 31 incorrectly contends that the SIS is relying on enriching lower value habitat to encourage Koalas to relocate away from areas of vegetation clearing. The Proposal relies on the principles of impact avoidance, minimisation and mitigation to achieve a sustainable development outcome that is not likely to result in a significant impact on the local Koala population. The combined use of habitat avoidance, revegetation of cleared lands using high value PKFTs, enrichment works, managed conserved habitat to minimise the impact of existing threats (e.g. mortality from wild dogs and wild fire) and use of fences, bridges and gates to segregate Koalas from the Urban precinct all combine to protect the local Koala population. Monitoring and adaptive management is prescribed in the BMP that is to be implemented over the Conservation Area to manage the effectiveness of these measures.</p>

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			<p>Point 33 suggests the status of the Koala should be endangered. The SIS has correctly assessed the impacts on the Koala in accordance with its vulnerable listing status as per the CERs issued for the Proposal.</p> <p>Point 34 supports the importance placed on the protection and management of Koala habitat. The proposed Conservation Area is of suitable size and character to support the local conservation of the Koala in the local area including the protection of the Kings Hill Koala hub.</p> <p>In difference to Point 37, the Proposal makes adequate provision for the avoidance of important Koala habitat and it's ongoing protection and management. The Proposal provides appropriate and accepted solutions for the management of threats to the Koala (i.e. vehicle strike, dog attack and drowning in swimming pools) through the use of Koala fences, gates and bridges. Allowance for road underpasses will support the movement of Koalas throughout the locality, notably to lands south of Kings Hill. The assessment provided in the SIS concludes that the Proposal is not likely to have a significant impact on the Koala (see Section 8.2.20 of the SIS).</p>
Individual submission Name redacted	Submission F April 2020	<p>The submission states that:</p> <ul style="list-style-type: none"> Revised plans do not respond to request that 2.3km unsealed section of Six Mile Road should be upgraded to meet modern road standards (sealed with drainage) Reduces to single lane when degraded Safety concerns 	<ul style="list-style-type: none"> Length of unsealed section measured using Six Maps is 1.5km, not 2.3km. Suggested widening and sealing of Six Mile Rd is an item for Council to consider, bearing in mind that Six Mile Rd will only be an emergency access to the KHURA in times when Newline Rd is flooded, and less than 600m of unsealed road fronts the developable area of KHDs land. Six Mile Road will only be relied upon very occasionally by KHURA for access/egress to the Pacific Highway when access via Newline Road is cut due to flooding (on average, once every 2 years for 2 days at a time). RMS traffic modelling has determined that based on existing conditions, and on such seldom occasions, up to 400 lots can safely access/egress via Six Mile Rd via the Pacific Highway.
1 Individual submission	Submission 3 July 2019 <i>Topics:</i> <ul style="list-style-type: none"> Construction 	<p>The submission states that:</p> <ul style="list-style-type: none"> During construction, there are concerns about increased vehicle movements Safety concerns about traffic Concerns about vehicle noises and alarms 	<ul style="list-style-type: none"> Traffic to and from the KHURA will rely on Newline Road for access to Raymond Terrace and beyond. Six Mile Road will only be relied upon very occasionally for access/egress to the Pacific Highway when access via Newline Road is cut due to flooding (on average, once every 2 years for 2 days at a time). RMS traffic modelling has determined that on such seldom occasions, up to 400 lots can safely access/egress via Six

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Name redacted Understood to be Tony Whitcomb, Honey Seller, Six Mile Road	<ul style="list-style-type: none"> Increased vehicle movements Noise Pedestrian access 	<ul style="list-style-type: none"> Suggest widening and sealing of Six Mile Rd Would like to see pedestrian and cycle paths in the precinct and through the E2 	<p>Mile Rd via the Pacific Highway. Consequently the state Planning Agreement only allows for up to 400 lots to be constructed within the KHURA before an interchange is required to be operational.</p> <ul style="list-style-type: none"> Extensive assessments during the rezoning and Concept DA process considered noise impacts in the context of existing background noise from the Pacific Highway and from military and civilian aircraft flightpaths. The resulting recommendations to management noise impacts are adopted by the proposal. Suggested widening and sealing of Six Mile Rd is an item for Council to consider, bearing in mind that Six Mile Rd will only be an emergency access to the KHURA in times when Newline Rd is flooded. KHD have proposed extensive pedestrian and cycle paths within the development and through the E2 Conservation (bushland) area. KHD will continue to work with Council and other related interests to provide active and connected spaces throughout the URA where acceptable to Council.
2 Individual submission Name redacted Understood to be Jennifer Sandstrom of 26 Six Mile Road, Eagleton	<p>Submission 12 June 2019</p> <p><i>Topics:</i></p> <ul style="list-style-type: none"> Safety Increased vehicle movements Traffic congestion Flora and Fauna Vibrations Noise 	<p><i>Concerns:</i></p> <p>State they oppose the proposal due to the following:</p> <ul style="list-style-type: none"> Concerns about congestion in Six Mile Road, Northern South Link, Newline Road and Pacific Highway Concerns about construction and dust and particles in the air, blocking and compromising waterways, dams and equipment covered in road dust, with concerns for the agriculture, bee and horse industries Concerns about truck movements creating road wear and tear Concerns about safety: danger for other vehicles including cars, school buses and delivery vehicles along the road, and resident safety Concerns about flooding of New Line Road and alternative routes being congested Concerns about the area being highly fire prone. Concerns about the removal of "30 prime hectares" of native fauna and flora, and negative impacts on Koala, Echidnas, Eagles, Ospreys, Brush-tail Phascogale and Giant Dragonfly habitats, ironbark, paperbark and flowering gums for beekeeping, reduction of native animal habitat and distribution of vulnerable plant and animal species. Concerns about roads 	<ul style="list-style-type: none"> At the community information session, the KHD project team explained the proposed road layout, including the north-south collector road that would run parallel to the Pacific Highway. Additionally, the team advised that until the north-south Collector road is constructed, access would be via Newline Road (or the Pacific Highway once the interchange is constructed). Traffic modelling of internal roads and the external road network has indicated indicates where and when congestion might arise, and the upgrades required to alleviate congestion and maintain safety. Construction Management Plans (CMP) will be prepared prior to construction to address the issues raised by the submission and in particular, to specify suitable times for construction, construction traffic, and any measures required to minimise dust spread. Dilapidation Plans will also be required prior to construction to identify existing wear and tear so any post construction damage can clearly be identified and rectified at no cost to the community. The RMS carried out a network safety audit involving Newline Road. An outcome was the reduction of the sign posted speed limit to 80kmh in 2019. Council will consider road safety during

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		<p>proximity and that studies completed are not correct. Concerns that areas that are cleared will experience erosion more quickly.</p> <ul style="list-style-type: none"> Concerns about water management, runoff, water contamination, and storms and flooding and concerns on the impact of water quality at the Grahamstown Dam and water supply, lack of monitoring and ongoing impacts on vegetation management, erosion, and stormwater. Concerns about vibrations and noise from the development sites and how existing activities may increase for example quarry blasting and existing truck movements. Concerns for families that work shift work and concerns for adequate rest and impacts on health of children and adults from construction operations for 10 hours a day <p><i>Suggestions:</i></p> <ul style="list-style-type: none"> The submission had a number of suggestions to address congestion, traffic and dust including ensuring the overpass is operational to not impact users, sealing Six Mile Road, to minimise dust, conducting a safety audit, ensuring emergency vehicle access The submission had a number of improvements suggested for waterways including barrier controls, sealed covers for truck movement, monitoring hours of construction and specific entry and exit points The submission had a number of suggested improvements for improving native habitats including continuing the native corridor down Six Mile Road, reducing speed limit to 60km and including speed humps, monitoring development for contamination and reduction of development in precinct one The submission had a number of suggestions to improve stormwater and water management including barrier systems, areas with plants, rocks and silt traps, regular clean out of creeks, and sensible management of water supply. The submission had a number of suggestions relating to reducing truck sounds and movements for example, that operating times for the development could be reduced, CCTV monitoring for truck movements, with reduction of beeper sounds, longer periods of construction with shorter periods of noise, and issues with noise monitoring and action plans to remediate issues. <p><i>Other points</i></p>	<p>their assessment of each proposed road design with each future DA for subdivision.</p> <ul style="list-style-type: none"> At the community information session, several attendees recommended the sealing of Six Mile Road, particularly due to the proposed increase in traffic and the dust generated from vehicles. Any improvements required to Six Mile Rd is an item for Council to consider having regard to existing v proposed traffic levels, and the proposed role of Six Mile Rd as only an emergency access/egress when Newline is occasionally flooded. The Proposal accounts for the progressive loss of flora and fauna habitat through the provision of in-perpetuity Conservation Area comprising 'like for like' habitat adjacent to the impact area that is to be managed for the benefit of biodiversity. The Proposal provides a local sustainable solution that maintains a viable representation of local biodiversity values for threatened and non-threatened species. The Proposal has made allowance for the protection of high value habitat patches and connections between these patches (i.e. Conservation Area). Enhancement and enrichment works described in the Biodiversity Management Plan (BMP) for the Conservation Area, are to be pre-emptively deployed in advance of impacts to minimise the impact of progressive habitat loss. Protocols for the careful and progressive removal of habitat are detailed in the Vegetation Management Plan (VMP), which provides further actions to minimise the intensity of the impact. Cumulative impacts have been managed through habitat conservation and management within a local area. The BMP provides guidance on 'cool burn' fire management for the Conservation Area, with the objective to reduce the likelihood for intense and widespread wildfire incidents. This is complimentary to the Proposal design where fire hazards are to be managed within the Proposal impact area without any need to clear or manage vegetation within the Conservation Area. The Concept DA is accompanied by Stormwater Management Plans, preliminary designs for stormwater treatment (quality and quantity), and detailed wetland impact modelling and assessments. The targets set for the treatment of stormwater water quality exceed Council's water quality controls. Erosion

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		<p>The submission concludes they strongly oppose the development as-is and request improvements. They state they have seen developments start with great intentions but revert to old habits that are not sustainable.</p> <p>The submission outlines that the area is also a flight path for RAAF jets and this needs to be considered in application approvals. They also state consideration of the native flora and fauna should be reflected and observed. They would like to remain informed in future.</p>	<p>and sediment controls, along with stormwater management devices, will be installed prior to construction activities to prevent downstream water quality impacts.</p> <ul style="list-style-type: none"> • Potential RAAF flightpath impacts area addressed in detail in the Concept DA and in response to Submission #1. • Concerns identified are in many cases more (or equally) relevant to future DAs for subdivision.
<p>3</p> <p>APP Corporation Pty Ltd</p>	<p>4 July 2019</p> <p><i>Topics:</i></p> <ul style="list-style-type: none"> • <i>Urban planning and release</i> • <i>Key attributes of the site</i> • <i>Community consultation</i> 	<ul style="list-style-type: none"> • The submission states they are in support of the proposal in the context of settlement strategies developed during the 1990s. The state a key objective for Council for identifying Kings Hill Urban Release Area is to provide for growth in housing demand and population increase. The area meets a number of criteria identified for new urban release, including being close to employment, infrastructure, supports the existing environment, social and economic priorities and provide affordable living with diverse housing choices. • Key attributes of the area are also listed including a large area with relatively few constraints, only seven landowners, not flood prone, described ecology due to local history, location is close to Raymond Terrace and sustainable for access to community facilities and infrastructure. • The submission states that much work has been done over the last 18 years and the submission details the steps, resources and processes invested by KHD, Council, State agencies and other stakeholders from 2002 from the resolution of Council, 2007 public exhibition of rezoning process, 2009 biodiversity report, 2010 NSW state government rezoning and 2012-19 outlining investigations including dam protection, and environmental requirements in exceedance of modern environmental requirements. • They note there has been community consultation in parallel to Council's public notification of the DA. (RPS report detailing community consultation, questions and answers, was attached) 	<ul style="list-style-type: none"> • No response required, submission made on behalf of KHD.

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		<ul style="list-style-type: none"> They note and outline 1989 to 2019 the significant investment by Council to identify demand, ensure integrity in the environmental assessment, and devise a specific Development Control Plan, assess and advise design and publicly notify landowners. The submission concludes by stating that KHD wish to ensure that Council and the community is aware that the Development Application lodged for assessment represents a great deal of planning, design and consultation, continual refining of the design including water infrastructure. This project is part of the realisation to realise regional benefits envisaged since the 1900s. 	
4 Environmental Resources Management Australia Pty Ltd on behalf of Suez Australia	4 July 2019 <i>Topics:</i> <ul style="list-style-type: none"> Waste management – local and regional Site access Subsurface gas Future landfill and recycling planning 	<ul style="list-style-type: none"> The submission is on behalf of their client and aims to ensure that Council is aware of the ongoing operation of the Raymond Terrace Advanced Resource Recovery Centre. They detail this is the only approved landfill in the local government area and is a facility important to the Hunter region as others are near capacity. They state is critical that the Kings Hill subdivision does not restrict the ongoing operation of the waste facility and future operations. The quote the development consent approval “no development within the 250-metre gas migration radius from the waste disposal facility”. The submitter requests documentation and data identifying that subsurface gas has been tested over regular intervals prior to the subdivision application and that this is imperative for landfill operations and that the migration radius is imperative. They conclude stating this should not be regarded as an objection, it is with the intent of consideration of the current and future operation of the centre, co-composting plant and landfill. The submitter requests their client and Council have ongoing dialogue about the short and long-term future of the waste facility. 	Refer to above response to more recent Suez submission.
5 King + Campbell	4 July 2019 <i>Topics:</i>	<ul style="list-style-type: none"> Submission states support of the Kings Hill Development Concept Development Application, including recent decision by NSW State Government to fund various aspects that will assist with the infrastructure of the project, namely URA Pacific 	<ul style="list-style-type: none"> No response required.

No.	Submission date	Concerns and themes listed	Mitigation strategy
	<ul style="list-style-type: none"> Urban development Stormwater planning and diversion Infrastructure Rollout 	<p>Highway interchange and the Grahamstown Dam Stormwater Diversion Channel.</p> <ul style="list-style-type: none"> The submission states that RMS workshop endorsed the location of the stormwater diversion channel and that means they can move forward with these projects. Submission also states that the Concept Development Application provides certainty for future infrastructure funding and articulation of urban and environmental footprints. The submission states that now the lead developer and subsequent developers have certainty of yield and certainty for the future. The submission details this certainty will now assist in working through the detail of the urban design, footprint and infrastructure including water supply, sewerage and management of waste water particularly with adjoining properties. They conclude by stating they will with KHD and other landowners and Council to ensure rollout is planned and coordinated in a timely, economic and logical manner 	
6	<p>1 July 2019</p> <p>Mambo-Wanda Wetlands Conservation Group</p> <p><i>Topics:</i></p> <ul style="list-style-type: none"> Native flora Native fauna Koala habitat State and local government legislation 	<p>The submitter states the background of the community group and formation after sale of land conducive to native flora and fauna including Koala habitat, in 2016, from Department of Education to a Developer.</p> <p>They state their opposition to the Kings Hill Development is based on non-compliance with Council and State Government Policies and express these in their written submission.</p> <p><i>State Government Policy</i></p> <ul style="list-style-type: none"> They state as per the Lower Hunter Regional Strategy 2006-31 there is need to protect green corridors because of the koala population listed as vulnerable to extinction because of ongoing development and pressure. They express that the state government is not able to protect the unique and fragile environment and local government is better placed to do so. The submission states that the NSW government has introduced legislation that does not protect Koalas. The submission states that only 14% of habitats are 	<ul style="list-style-type: none"> The Proposal is consistent with State Government Policy (i.e. the Proposal has been assessed in accordance with the Chief Executive Requirements issued by the NSW Office of Environment and Heritage - Species Impact Statement). The Proposal aims to prevent incremental biodiversity loss by retaining representative biodiversity values within the local area in a manner consistent with the Government gazetted land use zones. The Proposal comprises a detailed consideration of habitat loss and from the management of those impacts through impact avoidance, minimisation and mitigation measures. The Proposal provides an appropriate 'like for like' in-perpetuity biodiversity conservation outcome that is representative of local biodiversity values and is sufficient for the protection of sensitive species affected by the Proposal. These protections are manifest in the dedication of a 245 ha Conservation Area with a fully funded in-perpetuity management program via a Voluntary Planning Agreement (VPA). The Conservation Area, established in accordance with the BMP (i.e. Appendix C of the SIS), is of sufficient size,

No.	Submission date	Concerns and themes listed	Mitigation strategy
		<p>protected and logging, land clearing and urban development has had devastating impacts on Koala habitat.</p> <ul style="list-style-type: none"> They express concerns with the Kings Hill settlement of “possibly 10,000 people” will not help to protect habitats. <p><i>Council Policy</i></p> <ul style="list-style-type: none"> The submission states they perceive the development to not be compliant with Council’s ecological principles. They ask that Council not allow developments in wildlife corridors when Koala populations are at risk in NSW. They state they want their children to see wild koalas in the future, and state the need for conservation of biological diversity in future. They cite other examples in Australia where efforts to preserve populations during new developments did not work for example that transplanting Koala populations or higher urban density making Koalas more at risk of, for example, vehicle accidents or dog attacks. The submission concludes by stating they recognise Council has planning over many years for development at Kings Hill but that over the years they have grown in our understanding of the unique wildlife in bush and surrounds. The submitter urges Council to act with caution and do everything possible to protect the threatened environment. 	<p>shape and character to sustainably compliment/ contribute to local and regional biodiversity conservation objectives over the long term including green corridors. Establishment includes habitat enhancement and enrichment actions implemented prior to impacts, and sustained into the future for ongoing ecological benefit. The Conservation Area is directly adjacent to other large habitat patches that are to be protected and maintained (e.g. adjacent E2 lands). Locally and regionally, the Conservation Area is connected to larger patches of habitat occurring on private lands and State conservation reserve network as evidenced by consistency with regional corridor mapping (Scott 2003).</p> <ul style="list-style-type: none"> The Proposal provides habitat for the protection of the Koala in the local area in line with the recommendations of Biolink 2019. The Kings Hill Hub requires at least 900 ha of supplementary habitat to maintain a local viable population. Cumulative assessments show that at least 1,225 ha of secondary available to the Kings Hill Koala hub will remain accessible following the completion of site preparation works. The SIS concludes that the local Koala population will remain viable in the local area supported by the protection of habitat within the Conservation Area. Koala habitat is to be managed in perpetuity for the purposes of retaining free ranging animals in the locality. The Proposal adequately addresses key performance measures outlined in the Port Stephens Koala Plan of Management to demonstrate this outcome.- The Proposal has addressed the four principles of Ecologically Sustainable Development mentioned in the submission by: <ul style="list-style-type: none"> Conservatively assessing the impacts of development on affected species (precautionary principle) Providing realistic and achievable mechanisms for the retention of Koalas in the local area through avoidance of high value habitat, provision of wildlife connectivity, management of threats and in-perpetuity protection of habitat (intergenerational equity) The Kings Hill Koala hub has been properly considered in terms of managing the long term tenure of Koalas in the locality. The Conservation Area will provide an adequate and appropriate contribution to the conservation of

No.	Submission date	Concerns and themes listed	Mitigation strategy
			<p>biological diversity. In-perpetuity management of those values will enhance and preserve ecological integrity</p> <ul style="list-style-type: none"> – The proposed Conservation Area is a like for like biodiversity protection with in-perpetuity management following establishment of the conservation area (Improved valuation, pricing and incentive mechanisms) • The Proposal has properly and appropriately considered the impacts of biodiversity loss through the provision of in-perpetuity conservation outcomes and management. The Proposal is not expected to result in a significant impact on affected threatened species.
<p>7</p> <p>Port Stephens Koala & Wildlife Preservation Society Ltd</p>	<p>3 July 2019</p> <p><i>Topics:</i></p> <ul style="list-style-type: none"> • <i>Native flora</i> • <i>Native fauna</i> • <i>Koala habitat</i> • <i>State and local government legislation</i> 	<p>The submitter states they are from a local organisation supporting Koala habitats objects to the DA and outlines the reasons why including:</p> <ul style="list-style-type: none"> • The submitter believes the modifications to the development footprint to move away from sensitive areas are not sufficient. They state tis threatens the future viability of Koala populations in the area or becoming 'functionally extinct' • The submission states the description of the site as undisturbed vegetation could indicate ecological importance. • The submitter notes the vegetation to be cleared is not clear in the Concept Development Application and does not match the schedule in the BMP. • The submission states that the species impact statement does not represent the Koala specific data, has somehow missed 33 hectares in the study site, and is sceptical of the techniques that will be used for enrichment of the remaining suitable habitat. • The submission details Koala activities and breeding across areas to be cleared and also highlights what they believe are research and analysis gaps in the four key documents produced by organisations used for the study. They are: <ul style="list-style-type: none"> – Cumberland Ecology: the submission states the survey techniques used for surveying koala locations in the area are not comprehensive enough and this data is used to inform the report. – Peer review support from RPS: commissioned to finalise the SIS, vegetation typing and mapping – Biolink Ecological Consultants: more comprehensive than the Cumberland survey and estimates a wider area of Koala 	<ul style="list-style-type: none"> • See detailed response in Attachment A

No.	Submission date	Concerns and themes listed	Mitigation strategy
		<p>activity than this previous study, and that Biolink estimates up to three resident populations of 28 koalas live in the area.</p> <ul style="list-style-type: none"> – OWAD Report: prepared using detection dogs and an unbiased sampling grid. The results indicated that more than one female koala sampled in an area had a joey and breeding may be impacted in the area. They state that the population has good genetic diversity that is suitable for populating nearby areas that are depleted including Tomango and Medowie Koala Hubs. The submission notes that breeding potential can be impacted by environmental stress. • The submission then discusses the study by the Australian National university assessing nutrient quality of gum leaves at the Kings Hill Development site, noting that many trees at Kings Hill are highly digestible, nutritious and tasty to kolas. The submission states this study highlights a wide range of available trees is important because of the leaves quality and toxicity changes throughout the year, and this has important implications for areas to be utilised as wildlife refuge areas. • The submission states that because of the research gaps through the four reports, the areas recommended to be management areas in future have less intense koala activity than in the proposed areas that are to be cleared. The submission states this will have immense impact on the koala population. The submission then states that environmental stressors including land clearance are likely to reduce the health of Koala populations. • The submission states there was no procedure in the BMP when fauna is found to contact the nominated rescue agencies that are licensed in the area, that are Port Stephens Koalas or WINC in the area, not WIRES. • The submission also states about the pre-clearance procedures, habitat trees and relocation and the same procedures for the rescue organisations are omitted here. • The submission argues that translocation is not the first choice, but preservation of existing habitat is. <p><i>Recommendations</i></p> <ul style="list-style-type: none"> • The submission makes several recommendations including a more accurate assessment of the true impact of the development site at Kings Hill is undertaken, that it includes 	

No.	Submission date	Concerns and themes listed	Mitigation strategy
		<p>storm water drainage channel works to protect Grahamstown Dam and that recognising the clearing of land could impact the north south movement impact of Koalas and make them more vulnerable to predators.</p> <ul style="list-style-type: none"> The submission states that Koalas have been declared 'functionally extinct' by the Australian Koala Foundation in May 2019 and become extinct in NSW by 2050, and therefore request the Kings Hill Koala Hub be protected from development The submission quotes the NSW State government plans and green corridors that support the network or reserves of corridors and recommends the site be considered for new reserve status. The submission concludes that they also encourage landowners of the King Hill koala hub to submit an expression of interest to have their land purchased by the NSW Office of Environment and Heritage as part of the Koala Strategy, to increase the Koala habitats and new reserve areas. 	
8	4 July 2019	<p>The submitter states they oppose the development because:</p> <ul style="list-style-type: none"> The development will impact threatened species, populations and ecological communities, particularly fish habitat, wetlands and water quality. The submitter details that the development is inconsistent with relevant legislation including the Fisheries Management Act 1994, Coastal Management Act 2016, NSW Biodiversity Conservation Act 2016 and the Environmental Protection and Biodiversity Conservation Act 1999 and the Precautionary Principal has not been applied. The submission details the studies done and Council's comments to the applicant about and including preservation of threatened species, populations and ecological communities listed and the mapped key fish habitat. The submission notes Council's feedback of no consideration of the Fisheries Management Act 1994, and questions why this is not addressed or considered in the report. The submission states that the legislation is to conserve key fish habitats, and that key fish habitats have been investigated in a mapping exercise in 2007. The submission asks why there is no available ecological data of the Costal Wetland 803, and states they are important because they reduce impacts of floods and waves and improve water quality. 	<ul style="list-style-type: none"> The assessment is in accordance with the OEH CERs issued for the Proposal. Affected species and ecological communities were identified, investigated and assessed. Impact avoidance, minimisation and mitigation measures were defined and documented. The SIS concluded that the projects direct and indirect impacts are not likely to have a significant impact on affected threatened species. The Proposal is consistent with the <i>Fisheries Management Act 1994</i> as: <ul style="list-style-type: none"> Assessment has properly identified and assessed areas of key fish habitat. Listed threatened species and ecological communities that may be affected by the Proposal were considered and assessed with impacts not being regarded as significant. Fisheries NSW were consulted and provided a response consistent with the assessment The Coastal Management SEPP has been applied in the assessment of the Proposal and is consistent with the SEPP by: <ul style="list-style-type: none"> Identifying and excluding development from mapped coastal wetlands

No.	Submission date	Concerns and themes listed	Mitigation strategy
		<ul style="list-style-type: none"> • The submitter believes the ecologist has not addressed Council's requirement to explain why there is no consideration in the report, and there is no justification for failing to apply this act. • The submitter notes the report lists impacts on the Irrawang Swamp ecology. The submitter questions the tolerance level and spillway flow quoted from Grahamstown Dam in this age of climate change and increased levels of flooding. • The submission notes there are risks to water quality flows into Grahamstown Dam, risking further contamination. • The submission states there is scientific uncertainty regarding this development application, noting species yet unknown to science may be vital to survival of other species. • The submission notes the State Environment Report with an increase of 244% in the approved land clearing, 1025 species listed as threatened with extinction and 400% increase in critical endangered species since 2008. • The submitter notes that Council and Hunter water corporation will be answerable if there are issues impacting water quality in nearby wetlands and dam. • The submission concludes that the applicant has failed to fully address the requirements of the Fisheries Management Act to conserve threatened species, populations or local communities of fish and contamination of local drinking water. They note they have not addressed the consequences of excavation works adjacent to water land and the fragmentation of species and degradation of habitats will result. For these reasons they state the precautionary principle must be applied and the development and excavation adjacent to or within the "water land" must be refused. 	<ul style="list-style-type: none"> – Excluding development from the periphery of coastal wetlands (i.e. application of a minimum 50 m buffer from mapped wetlands) – Application of water sensitive urban design principles to manage and protect water quality and quantity entering coastal wetlands. • Council, as the consent authority for the Proposal, is required to assess the Proposal under Part 4 of the EP&A Act. The Proposal assessment was prepared in accordance with the Office of Environment and Heritage Chief Executive Requirements for the preparation of a Species Impact Statement (see Appendix A of the SIS) as permitted by the <i>Biodiversity Conservation (Savings and Transitional) Regulation 2017</i>. Accordingly, the Proposal was assessed under the <i>Threatened Species Conservation Act 1995</i> and consequently was not required to prepare assessment under the <i>Biodiversity Conservation Act 2016</i> (see Section 1.1.1 of the SIS for the planning context). • Council is not the consent authority for the assessment of Matters of National Environmental Significance listed under the <i>Environment Protection and Biodiversity Conservation Act 1999</i>. This is a separate assessment process and is subject to referral to the Commonwealth Department of Agriculture, Water and Environment. This is acknowledged in Section 9.2 of the SIS. • The Proposal has addressed the four principles of Ecologically Sustainable Development including the precautionary principle by: <ul style="list-style-type: none"> – Conservatively assessing the impacts of development on affected species (precautionary principle) – Providing realistic and achievable mechanisms for the retention of Koalas in the local area through avoidance of high value habitat, provision of wildlife connectivity, management of threats and in-perpetuity protection of habitat (intergenerational equity) – The Kings Hill Koala hub has been properly considered in terms of managing the long term tenure of Koalas in the locality. The Conservation Area will provide an adequate and appropriate contribution to the conservation of biological diversity. In-perpetuity management of those values will enhance and preserve ecological integrity

Our ref: 19014

No.	Submission date	Concerns and themes listed	Mitigation strategy
			<ul style="list-style-type: none"> – The proposed Conservation Area is a like for like biodiversity protection with in-perpetuity management following establishment of the conservation area (Improved valuation, pricing and incentive mechanisms) • The Proposal has properly and appropriately considered the impacts of biodiversity loss through the provision of in-perpetuity conservation outcomes and management. The Proposal is not expected to result in a significant impact on affected threatened species.
9 Individual submission Port Stephens Koalas	8 July 2019 <i>Topics:</i> <ul style="list-style-type: none"> • <i>Native flora</i> • <i>Native fauna</i> • <i>Koala habitat</i> • <i>State and local government legislation</i> 	<ul style="list-style-type: none"> • The submission supports the other submissions raised on the topic of flora and fauna and they clearly articulate the concerns of residents and their concerns about the development application. • The submission states the need for appropriate housing development balanced with the need to preserve our environment. They state developers clear the land completely making it easier for infrastructure but create a sterile environment resulting in fragmentation of habitat. • The submission states they have seen similar results from the quarry at Brandy Hill that is seeking expansion and seeks to clear 45.8 hectares of valuable koala habitat. The submission states the sensitive biodiversity of Kings Hill is not to be dismissed, and that the total national population for Koalas is now reported at 80,000 and this has been acknowledged by both State and Federal governments • The submission indicates it is up to local Councils to demand better standards of preservation of flora and fauna at a local level, and states that Council prides itself on being a champion of Koala preservation so this would be a good opportunity to encourage better strategies in regard to wildlife preservation. • The submission concludes by stating that future generations will thank Council for their leadership on this issue. 	<ul style="list-style-type: none"> • The Kings Hill URA is derived from a detailed rezoning process that commenced in 2002 involving some 8 years of detailed site investigations, and resulting in State government approval in 2010 of residential, environmental/conservation, mixed use, and business zones. The zoning boundaries were informed by a Port Stephens Council commissioned environmental investigation by EcoBiological in 2009. The SIS and Concept DA Proposal has acknowledged the EcoBiological (2009) investigation findings by adopting and building on the recommendations provided in that assessment. Wildlife connectivity was widened and strengthened. Impact avoidance for areas of high biodiversity were identified and excluded from future development. Local conservation outcomes were identified and incorporated into an in-perpetuity conservation outcome. • The SIS prepared for the Proposal was completed in accordance with the CERs issued by NSW OEH for the Proposal. It has methodically identified affected threatened species and ecological communities together with consideration of impact avoidance, minimisation and mitigation measures. A local biodiversity conservation outcome was delineated for the purposes of protecting local biodiversity values. The SIS concluded that the Proposal is not likely to have a significant impact on affected threatened species and ecological communities.

Phone calls and emails – detailed table of themes

During this period, we also received the following three (3) calls (up to Wednesday 28 August 2019) relating to the Concept DA, deidentified for privacy purposes.

Our ref: 19014

No.	Call or email date	Concerns raised and themes listed	Mitigation strategy
1	29/6/2019	Concerns about ecology of the area (follow up from community information session)	<ul style="list-style-type: none">• Ecologist contact details provided as follow up to the community information session. The Principal Ecologist spoke at length with attendees about the rigour applied to the SIS assessment. Many of the attendees indicated that they have koalas on their properties and showed great interest in the research undertaken on the tree species that provide the most nutrition to the koala.
2	12/08/2019	Wanting more information about the project generally	<ul style="list-style-type: none">• Link to the proposal website and the Development Application tracker on Council's website has been provided as part of the response.
3	12/08/2019	Concerns about: <ul style="list-style-type: none">• noise• dust• construction	<ul style="list-style-type: none">• Note that further information would be provided on submission of the DA along with further direct communication to any affected landowners.• The proposed working hours for construction activities (including the delivery of plant and equipment) would be limited to recommended standard hours outlined by Interim Construction Noise Guideline (DECC 2009) for the majority of the works. These standard construction hours are:<ul style="list-style-type: none">– Monday to Friday: 7am to 6pm– Saturday: 8am to 1pm– Sunday and public holidays: No work.• Link to the proposal website and the Development Application tracker on Council's website has been provided as part of the response.

Attached: all submissions 1-9

Our ref: 19014

Date: 3 August 2020

Attachment A

Level 13, 255 Pitt Street
Sydney NSW 2000
T +61 2 8099 3200

Our ref: PR130430

Unit 2A, 45 Fitzroy Street
Carrington NSW 2294
T +61 2 4940 4200

Date: 01 May 2020

Adam Smith
APP
Level 7, 116 Miller Street
North Sydney NSW 2060

Dear Adam,

Kings Hill Concept DA Response to Submissions: Port Stephens Koala & Wildlife Preservation Society Ltd

A detailed response to the submission provided by Port Stephens Koala & Wildlife Preservation Society Ltd (dated is provided as follows using the format adopted in that submission for ease of reference.

Items 1-4 are of a contextual introductory nature are acknowledged as the preface to the submission. No response is provided on this basis. Also noteworthy is the submission refers to the Species Impact Statement (SIS) published in May 2019. This response reflects the updated SIS submitted in March 2020 (RPS 2020).

5. The need for a SIS is premised by the potential for a significant impact on threatened species and/ or ecological communities and their habitats. In relation to the rezoning process undergone for the Kings Hill urban release area rezoning assessment, EcoBiological (2009) considered three possible land zone options and, in relation to the government approved land zoning option, identified the likely need for an SIS. Reasons for this conclusion include impacts on species such as the Koala, Brush-tailed Phascogale and Grey-crowned Babbler. Kings Hill Developments (KHD) have acknowledged this conclusion and have procedurally undergone a detailed assessment process in accordance with the Office of Environment and Heritage's Chief Executive Requirements for the preparation of a SIS for the purposes of investigating and evaluating the impacts of the Concept DA on threatened species and ecological communities.

KHD has tendered a SIS that comprehensively addresses these requirements including a detailed application of the impact mitigation hierarchy (i.e. Avoid, Minimise, Mitigate and Offset). The Proposals impacts are considered in Sections 5 and 6 of the SIS with a detailed account of ameliorative measures outlined in Section 7 of the SIS. Section 8 of the SIS provides a revised assessment of the Proposals impacts following consideration of information provided in Sections 5, 6 and 7 and concludes that the Proposal is not likely to have a significant impact on threatened species and ecological communities affected by the Proposal. This comprehensive assessment process included a thorough and detailed consideration of the Proposals impacts on the Koala including advice from Koala experts including Dr Steven Phillips and Dr Grant Brearley (BioLink), Ms Olivia Woosnam (OWAD Environmental) and Dr Kara Youngentob and Dr Karen Marsh (Australian National University).

KHD disputes the Australian Koala Foundation announcement regarding the Koala as a species that is 'functionally extinct'. This claim is not supported by recent genetic analysis performed for Koalas present within the Port Stephens Council local government area (OWAD 2019 see Appendix G of the SIS), the

ARKS assessment (Rennison 2017) and recent local observations reported by Dr Steven Phillips that indicates Koala recovery, not decline, in the local area (BioLink 2018).

6. Areas of high biodiversity value were characterised and described in the SIS for the purposes of considering impact avoidance outcomes. Impact avoidance outcomes have been integrated into the Proposal as the highest order method for reducing impacts and are described in Section 7.1 of the SIS. These measures, which are fully described in a revised Biodiversity Management Plan (BMP) (Appendix C of the SIS), address the biodiversity management requirements for maintaining viable populations of threatened species in the local area.

7. A revised definition for the clearing of vegetation as part of initial site preparation works is provided in description of the proposal (Section 2.2 of the SIS) with a prescriptive approach to the implementation of this work provided in the Vegetation Management Plan (VMP), as appended to the SIS (Appendix D). These revisions provide clarity on the approach taken to minimise and mitigate the effects of vegetation clearing.

8 and 9. Figures defining the extent of initial site preparation works are revised to address any inconsistencies.

10 and 11. The SUS was prepared by appropriately qualified and experienced investigators in accordance with the OEH CERs and is signed by the lead author (Mark Aitkens) to verify its accuracy.

12. Additional focus placed on the Koala is a function of its confirmed presence and the additional assessment requirements incurred through application of the Port Stephens Comprehensive Koala Plan of Management. Additional investigations were needed to address this matter over and above the OEH CERs.

13. Although subsequently revised, these impact calculations are relatively with the updated SIS. Extensive pre-impact mitigation works are proposed as part of establishing the Conservation Area (i.e. implementation of BMP before vegetation clearing).

14. The test of significance is used to evaluate the likely consequence of the Proposals impact on affected threatened species and ecological communities. Avoided impacts comprising lands of high biodiversity value have been integrated into an in-perpetuity Conservation Area has the purpose of demonstrating capacity to retain local viable populations of affected threatened species including the Koala. Revised seven-part tests provided in Section 8 of the SIS test the adequacy of impact avoidance, minimisation and mitigation strategies to determine if the Proposal is likely to sustain local viable populations of affected threatened species and ecological communities. These assessments concluded that the Proposal is not likely to result in a significance impact on affected threatened species and ecological communities.

15. Discrepancies indicated relate to lands mapped as 'cleared'. These cleared lands are not included in the impact area calculation as they do not harbour habitat for affected threatened species and ecological communities.

16 and 17. Areas of important Koala habitat were identified and duly considered as part of the SIS. Considerable attention was placed on the identification of impact avoidance outcomes to protect high value habitat. A total of 38.47 ha of impact avoidance was identified and excluded from development. Areas of habitat that allowed for the protection of feed trees, shelter (thermoregulation) and movement constituted the highest priority impact avoidance lands.

18. The assertion that there are inconsistencies across documentation used to compile the SIS is incorrect. The SIS was authored and signed by a qualified and experienced ecologist attesting to its accuracy at the time of publication.

19 – 22. Cumberland Ecology investigations were an important early contribution to the assembling of data for the SIS. Additional works were performed to gain an improved understanding of site conditions for affected threatened species including the Koala. Any inconsistencies indicated merely reflect the manner in which site knowledge was progressively attained over the investigation period.

23 – 26. BioLink Ecological Consultants were routinely engaged in the SIS process and their advice and expertise was regularly sought to inform the revised SIS documentation. The incremental acquisition of expert advice following Cumberland Ecology's involvement was relied on to improve the assessment of the

Proposal. Information published in the revised SIS was true and accurate at the time of its publication and in no way distorts the information supplied by contributing specialists such as BioLink and/ or OWAD.

27 – 28. These interpretations of the SIS further confirm the incremental nature of information gathering and specialist involvement over time. Information published in the revised SIS was true and accurate at the time of its publication and in no way distorts the information supplied by contributing specialists such as BioLink and/ or OWAD.

29 – 38. OWAD as a specialist supplier of dog detection services was employed to compliment work performed by BioLink. The information obtained allowed for an enhanced understanding of habitat use by the Koala in addition to Koala genetics and relatedness. The implications of this work were considered and applied in the assessment of the Proposal including the verification of impact avoidance areas.

39. The allelic richness findings at Kings Hill do not support a management action to repopulate the depleted Tomago and Medowie Koala hubs. Such actions are outside the scope of the Proposal and the SIS. Notwithstanding, the SIS does provide an allowance for the improvement of east west connectivity for the Koala across the Pacific Highway, which may indirectly benefit Koala genetics in the east of Port Stephens. Further investigations by local and State authorities are required to address this conservation issue.

40. Stress is a factor that may affect animal health and possibly fecundity. The Conservation Area, which comprises the Koala habitat to be protected, is to be segregated by a Koala proof fence to prevent dog attack. The size and topographic location of the Conservation Area is suitable for segregating urban and Koala activity (i.e. reduced light and noise impacts). The Proposal has addressed the key performance indicators specified in the Port Stephens Comprehensive Koala Plan of Management to ensure consistency with that document. The SIS concludes that the Proposal will result in the protection of Koala habitat for ongoing sustained habitat use by a variable Koala population in the locality.

41 – 45. The variable palatability of eucalypt foliage for the Koala was recognised in the SIS through the work performed by Dr Karen Ford and Dr Kara Youngentob. This work greatly influenced the identification and verification of impact avoidance areas and development of mitigation measures proposed to address impacts.

46 – 51. The BMP has been amended to improve its capacity to effectively deliver the mitigation measures outlined in Section 7.1 of the SIS. Matters raised in this part of the submission have been rectified and addressed.

52. Dr Karen Ford and Dr Kara Youngentob identify the Kings Hill site as having a maximum carrying capacity for Koalas of between 0.5 to 0.75 Koalas per hectare. Measured activity from various investigators, as presented in the SIS, is a function of the methods used and the time of their use. Additional Koala feed tree mapping was performed in consultation with BioLink to further refine habitat extent. The SIS has appropriately quantified the extent of Koala habitat for the purposes of assessing the impacts of the Proposal.

53. The SIS has incorporated numerous investigative methods to better understand Koala habitat within the Kings Hill subject site. A conservative appraisal of habitat has been applied in the assessment process. This conservative assessment approach, which is consistent with contemporary investigation methods recommended by OEH, has been used to address uncertainties in Koala activity across the Kings Hill site.

54 – 57. Koala DNA, relatedness, allelic richness and population density were matters considered in the SIS. Impact avoidance and mitigation responses specified in Section 7.1 of the SIS respond to these issues.

58. The Proposals provides for an adequately sized and managed local Conservation Area separated from the urban lands to minimise stress impacts.

59-62. Noted.

63 – 64. Passive relocation by 'one – way' bridges and exclusion fencing (i.e. Koala fence) is the principle mechanism for managing impacts on Koala individuals. Progressive clearing that treats Koala feed trees in a sensitive and appropriate manner has the purpose of aiding the functionality of the 'one – way' bridges and

Our ref: PR130430

exclusion fencing (i.e. Koala fence). Direct handling and relocation of animals to the Conservation Area is not expected as part of the initial site preparation works.

65. It is not correct to assert that the SIS did not accurately present the “Kings Hill Koala Hub as a significant source population”. The SIS has assessed a local population of this species and has concluded that the Proposal is not likely to have a significant impact on this species.

66. The storm water drainage channel on the eastern side of the Pacific Highway is separately assessed by Transport for NSW. Assessment duplication is not warranted in this circumstance.

67. BioLink (2018) defines a Koala hub as requiring a minimum of 900 ha secondary Koala habitat for ongoing persistence. Habitat area calculations for the Kings Hill Koala hub indicate the availability of at least 1,377 ha with habitat availability following initial site preparation works declining to 1,225 ha. Revegetation works establishing ~19 ha of primary and secondary habitat plus habitat enrichment works will effectively mitigate the habitat loss. It is considered that the Kings Hill Koala hub will have access to > 900 ha of secondary habitat following the completion of site initialisation works, which, according to BioLink (2018) is an adequate amount of habitat for the ongoing persistence of at least 50 Koala individuals.

68. There is no evidence to support the view that Koala’s are functionally extinct in the Port Stephens local government area (i.e. Koala populations are no longer viable). The SIS demonstrates that the Proposal is able to support the ongoing presence of a viable Koala population within the locality.

69. Local and regional corridors have been considered and integrated into the Proposal. Through impact avoidance outcomes there has been considerable improvement in corridor width and length that favours biodiversity conservation outcomes. No further consideration of connectivity is required.

70. The Conservation Area, as proposed, would contribute to the objectives of the NSW Koala Strategy.

Yours sincerely,
for RPS Australia East Pty Ltd

Mark Aitkens
Principal Ecologist
mark.aitkens@rpsgroup.com.au

References

- BioLink (2018). Managing koala populations for the future: constituent populations of the Central ARKS Port Stephens sub-area. Final Report to Port Stephens Council. Biolink Ecological Consultants, Uki, NSW.
- EcoBiological (2009). Supplementary Ecological Investigations and Assessment (Vol 2 - BioBanking and Offset Strategy) Kings Hill Development Area, North Raymond Terrace.
- OWAD (2010). PORT STEPHENS LGA KOALA GENETIC SAMPLING REPORT. Prepared by OWAD Environment for PM No. 1 Pty Ltd
- Rennison B (2017b). Bioregional Assessment of Koala Populations in NSW. Unpublished report prepared for the NSW Office of Environment and Heritage.
- RPS (2020). Species Impact Statement: Kings Hill Development. Unpublished report prepared for Kings Hill Developments by RPS, Newcastle.