

Annexure 'B'

**Table of Preliminary or Investigatory Work Proposed to be Carried out before
the Issue of a Construction Certificate for Substantive Subdivision Work**

CONDITION	COMMENTS
Plans of Bulk Earthworks	
10. The Proponent shall submit the following plans and specifications with an application for construction certificate for the Bulk Earthworks: a) Natural and finished development levels (spot levels and contours) clearly detailed with a legible scale. b) Sediment and erosion control plans c) <u>Geotechnical compliance</u> d) Planting/hydromulching for short term and long term batter slopes e) An earthworks phasing diagram that defines maximum exposed areas f) Maximum batter slopes shall be consistent with the recommended maximum batter slopes for stability in the geotechnical report titled "Geotechnical Investigation proposed residential subdivision Depot Road Kings Forest" prepared by Cardno Bowler dated 7 April 2011. g) Areas in which the natural slope exceeds 25%, a qualified geotechnical engineer is to provide further advice in relation to cut / fill construction for the bulk earthworks. h) A shake down area along the haul road immediately before the intersection with the road reserve.	To comply with Condition 10(a), it will be necessary to place dumpy pegs and observe levels on the nominal centre line of the proposed Kings Forest Parkway and the proposed Precinct 5 roads, generally as shown highlighted on the attached copy of the Plan of Proposed Subdivision of Precinct 5, to enable levels to be observed and detailed Engineering Plans prepared for the bulk earthworks and road design plans to accompany the Construction Certificate Application. The dumpy pegs will be placed in areas of grassland and will have minimal environmental impact.
i) Compliance with the provisions of Council's Design Specification D6 – Site regarding. j) Measures to be implemented during bulk earthworks operations to ensure the existing 600mm trunk water main is protected.	

CONDITION	COMMENTS
Road Design	
23. 1) Kerb and gutter (kerb/edge restraint on one way cross fall roads) stormwater drainage, full road width pavement including traffic facilities (roundabouts, median islands etc) and paved footpaths shall be constructed along the full length of the new roads. 2) The design of all roads shall be consistent with the Stage 1 Project Application Road Hierarchy (Plan No. 06) prepared by RPS dated 23 August 2012 and the Stage 1 Project Application Precinct 5 Road Network plan (Plan No. 15) prepared by RPS dated 29 August 2012, except where amended by this condition. 3) Final road design plans shall be prepared by a qualified practising Civil Engineer and submitted to the Certifying Authority prior to the issue of a Construction Certificate for civil works for each stage of the project. 4) Construction of all roads must be to an urban, asphalt road formation to Council's Development Design Specification D1 – Road Design. 5) All landscaping indents along Kings Forest Parkway for the entire proposed length from Tweed Coast Road through to proposed Road 9, that reduce the pavement width to less than 9m shall be removed or reduced in size such that the road carriageway may be constructed to a minimum pavement width of 9m. 6) Kings Forest Parkway road carriageway is to be constructed to a minimum pavement width of 9m from the entry with Tweed Coast Road through to proposed Road 9. These details are to be provided on an application for a Construction Certificate. 7) All proposed roads (laneways) shall provide a minimum pavement width of 6m. 8) Access roads are to have a minimum horizontal curve radius of 10m for access roads and 15m for neighbourhood collector roads to eliminate sharp curves. 9) All batter slopes for road embankments greater than 1:4 are to be planted. The planting details are to be shown on a	To comply with Condition 23(1), (2) and (3), it will be necessary to place dumpy pegs and observe levels on the nominal centre line of the proposed Kings Forest Parkway and the proposed Precinct 5 roads, generally as shown highlighted on the attached copy of the Plan of Proposed Subdivision of Precinct 5, to enable levels to be observed and detailed Engineering Plans prepared for the bulk earthworks and road design plans to accompany the Construction Certificate Application. The dumpy pegs will be placed in areas of grassland and will have minimal environmental impact.

CONDITION	COMMENTS
landscaping plan prepared by a suitably qualified person. 10) Details of fauna exclusion fencing and underpasses for roads traversing Environmental Protection Areas are to be provided to the Director-General Secretary for approval prior to the issue of a construction certificate for bulk earthworks in the southern and/or western development precincts. This may include temporary fencing and underpasses during the construction phase.	
Baseline Monitoring 37. 1) Prior to the issue of the first Construction Certificate, the proponent must demonstrate to the satisfaction of the Department that sufficient baseline monitoring has commenced in accordance with the relevant Environmental Management Plans, including the following: a. Flora and Fauna Monitoring Report;	The Project Ecologist, Mr James Warren of JWA Pty Ltd, has advised as follows in relation to Condition 37. I have reviewed the following approved (MP08_0194) Stage 1 management plans. Stage 1 includes Precincts 1, 2, 3 , 4 and 5: • Vegetation Management Plan (VMP) - Precincts 1 and 5; • Threatened Species Management Plan (TSMP) - Precincts 1 and 5; • Weed Management Plan (WMP) - Precincts 1 and 5; and • Buffer Management Plan (BMP) - Precincts 1 and 5. I have also reviewed the draft (May 2018) Koala Plan of Management (KPoM) and draft (February 2018) Wallum Sedge Frog Management Plan (WSFMP). The VMP contains no provision for baseline survey; The TSMP requires a baseline fauna survey in the buffers and EPZ's. The WMP requires a baseline weed survey at each weed treatment site. The BMP requires a baseline fauna survey in the buffer zones. The KPoM requires a baseline Koala survey.

CONDITION	COMMENTS
	The survey is to be completed over spring/summer. A detailed methodology is contained in APPENDIX 7 of the KPoM. The WSFMP requires a baseline Wallum sedge frog survey. This survey was completed in early March 2018. It is to be noted that all of the MP08_0194 management plans are to be amended taking into consideration the final KPoM and WSFMP. The final MP08_0194 management plans are highly likely to contain provisions for baseline surveys for threatened species including Koala and Wallum sedge frog as well as baseline surveys for weeds and compensatory habitat areas. All vegetation baseline surveys could be bundled into one baseline survey. Data collected would serve to acquit all management plan requirements i.e. weeds, compensatory habitat for Koala and WSF etc. All baseline work would be confined to the Precincts 1 to 5 area and their surrounding buffer and EP Zones except for the Koala baseline survey which would need to cover the entire site. It is anticipated that Precincts 2, 3 and 4 would be covered in the baseline surveys. A portion of all baseline survey work will be completed in areas containing EEC's, threatened species, SEPP 14 wetlands, or land zoned 7(a) or 7(1) under State Environmental Planning Policy (State Significant Areas) 2005. 1. Baseline Vegetation Survey of Buffer and EP Zones adjacent to Precincts 1 to 5 (including weed areas and areas set aside for compensatory habitat): • Preparation of site survey locations, hammer pegs into the ground; and • Data collection. 2. Baseline fauna survey (including Threatened species) of Buffer and EP Zones adjacent to Precincts 1 to 5: • Preparation of site survey locations, hammer pegs into the ground;

CONDITION	COMMENTS
	- Survey utilising Elliott trapping (catch and release), Cage trapping (catch and release), Pitfall trapping (catch and release), Arboreal Elliott trapping (catch and release), Spotlighting/stag watching, Call playback, Dawn & dusk bird surveys, Hair tubes, Anabat survey and Active searching. The arboreal Elliott traps will be placed on high branches in trees. The platforms holding these traps in place will need to be nailed (galvanised nails) into a small number of large branches. Pitfall trapping will involve the creation of small holes in existing cleared areas and small plastic buckets placed in these holes. All fauna survey will be carried out in compliance with the relevant NSW Office of Environment and Heritage guidelines and NSW Animal Ethics approvals.; 3. Baseline Koala Survey of entire Kings Forest site. Methodology to be in compliance with APPENDIX 7 of the KPOM and with the EPBC Act Referral Guidelines. Survey points are to be selected in accordance with APPENDIX 7 FIGURE 1 contained in the KPOM. - Preparation including location and pegging of survey sites; - Full SAT analysis, Koala sighting details, Koala habitat condition assessment and photo assessment at 37 survey points (pegs hammered into ground at each survey point); 4. Baseline survey for Wallum sedge frogs (completed in March 2018). Methodology in compliance with Section 11.3 WSF Survey methodology contained in the Wallum Sedge Frog Management Plan. Installation of permanent marking pegs hammered into the ground. No vegetation removal is required for any of the above baseline monitoring events. The baseline survey work is consistent with all survey protocols approved for use in New South Wales regardless of whether these areas contain EEC's, threatened species, SEPP 14 wetlands, or land zoned 7(a) or 7(1) under State Environmental Planning Policy (State Significant Areas) 2005. The disturbance to these areas is extremely minor and will not cause any short or long term adverse impacts to these species or habitats.

CONDITION	COMMENTS
b. Groundwater Management Plan;	Groundwater management for the construction phase is assessed in the following two approved reports: • Position Paper – Environmental Risk in Respect of Groundwater, Surface Water and Hazards, (G&S October 2016); and • Position Paper – Groundwater Conditions at the Proposed Service Station Site, Precinct 1, Kings Forest, New South Wales, (G&S October 2016). Those reports detailed groundwater levels on the site, which provided a methodology for developing measures to be used during the construction phase to mitigate groundwater drawdown. A further six months of groundwater level monitoring was completed following those reports to further characterise background rainfall recharge/groundwater relationships at the site. Specific commitments in respect of groundwater protection using interstitial monitoring are set out in the approved Gilbert & Sutherland report entitled 'Position Paper – Site Based Management Plan & Environment Protection Plan, Kings Forest Service Station (Precinct 1), Kingscliff, New South Wales'. That report also proposes the installation of additional monitoring wells within the footprint of the UPSS to assess groundwater conditions prior to construction and to act as a further groundwater protection measure during the operational phase.
c. Overall Water Management Plan; and	Current groundwater level monitoring has employed existing bores. The proposed further monitoring bores will be constructed adjacent to the UPSS array, within the development footprint. Thus baseline monitoring requires no additional site disturbance. The G&S 2012 report entitled 'Overall Water Management Plan, Kings Forest Stage 1' set out surface water and groundwater monitoring objectives for the entire Kings Forest development. That report was overtaken by site-specific assessments and commitments detailed in the G&S 2016 position paper reports dealing with the Kings Forest Service Station site. The environmental risk at the service station site was assessed and the key hazards identified. Mitigation measures addressing those identified hazards are then set out in the report entitled Position Paper – Site Based Management Plan & Environment Protection Plan, Kings Forest

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d. Stormwater Management Plan. 2) The Proponent must ensure that all monitoring bores and works that intersect groundwater are licensed, if relevant, from the NSW Office of Water.	Service Station (Precinct 1). Monitoring consistent with the objectives and commitments set out in the 'Position Paper – Site Based Management Plan & Environment Protection Plan, Kings Forest Service Station (Precinct 1)' has commenced. Further monitoring will be necessary prior to and throughout the construction phase. Monitoring is conducted using existing bores. The proposed further monitoring bores will be constructed adjacent to the UPSS array, within the development footprint. Thus baseline monitoring requires no additional site disturbance. The report entitled 'Conceptual Stormwater Assessment, Proposed Service Station Site, Kings Forest New South Wales (G&S October 2016)' is the approved Stormwater Management Plan for the site. It demonstrates that installation and maintenance of stormwater quality improvement devices in accordance with those assessed in the report would achieve Tweed Shire Council's water quality objectives. The installation and proper functioning of those devices will be certified during and following the construction phase. No baseline monitoring was proposed and none is necessary to meet that objective.