[redacted]

From: system@accelo.com on behalf of Caroline Brown OBO Brett Cornish
[redacted]
Sent: Monday, 5 November 2018 3:24 PM
To: [redacted]
Subject: Submission Details for company Cornish Group (org_comments)
Attachments: 293154_ORG Submission Details from Cornish Group 20181102.pdf

Confidentiality Requested: no

Submitted by a Planner: no

Disclosable Political Donation:

Agreed to false or misleading information statements:

Name: Caroline Brown OBO Brett Cornish
Organisation: Cornish Group (Executive Assistant)
Govt. Agency: No
Email: [redacted]

Address:
[redacted]

[redacted]

Content:
Please see attached.

IP Address: - 141.243.33.161
Submission: Online Submission from company Cornish Group (org_comments)
https://majorprojects.accelo.com/?action=view_activity&id=293154

Submission for Job: #9552
https://majorprojects.accelo.com/?action=view_job&id=9552

Site: #0
https://majorprojects.accelo.com/?action=view_site&id=0

29TH October 2018

Director, Aerotropolis Activation
Department of Planning and Environment
GPO Box 39
Sydney NSW 2001

Cornish Group No. Five Pty Ltd
ABN 99 627 200 140

RE: SUBMISSION: PROPOSED ZONING FOR STAGE 1 PLAN FOR THE WESTERN SYDNEY AEROTROPOLIS

The submission herein is made on behalf of Cornish Group in response to the draft Western Sydney Aerotropolis Stage 1 documents, published for exhibition at https://www.planning.nsw.gov.au/Plans-for-your-area/Priority-Growth-Areas-and-Precincts/Western-Sydney-Aerotropolis.

SUBMISSION OBJECTIVE

The purpose of this submission is to provide in principle support for the proposed Western Sydney Aerotropolis Priority Growth Areas and Precincts, whilst providing some valid planning and engineering feedback positions – particularly around flooding and how the zone mapping has been derived from this flooding.

When established, the various outer precincts and lands surrounding the Aerotropolis, will play a crucial role in providing essential and complimentary services and infrastructure for Sydney's second airport. Cornish Group's development intention for their site, located within the WSA's Northern Gateway Precinct, reinforces that development philosophy.

However, Cornish Group submits that the current draft zone mapping requires **significant** amendment prior to the implementation of the plan and that subsequent **rezoning** of lands surrounding the Aerotropolis be undertaken.

Only by implementing planning decisions that are supported by best practice design principles, can the potential highest and best use of the land can be achieved. Our view is that, this is not the case presented by the current Draft WSA Structure Plan.

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CORNISH GROUP

Cornish Group is a developer in Western Sydney with over 30 years' experience and has recently acquired 812-844 Luddenham Road, Luddenham ("The Site").

In the current economic climate, Cornish Group is one of the few developers posessing both the necessary experience ***and*** financial capacity to deliver a project of the intended nature for The Site. Moreover, and without the need for debt funding, Cornish Group is able to proceed immediately to delivery of its development.

Adoption of the Cornish Group recommendations herein, provides the Greater Sydney Commission with an opportunity to better utilise lands within the proposed Aerotropolis precincts, maximising complimentary infrastructure and employment opportunities in lands fit for this purpose.

SUBJECT SITE FOR THE SUBMISSION

The Cornish Group site to which these comments relate, is situated at [redacted] Luddenham. The Site sits within the Northern Gateway Precinct, within the draft Western Sydney Aerotropolis (WSA) area. The rear of the lot backs on to Cosgroves Creek - a 4th order stream and whose classification as such, provides support for part of Cornish Group's revised zoning proposal herein.

Figure 1: The Site Location: [redacted]

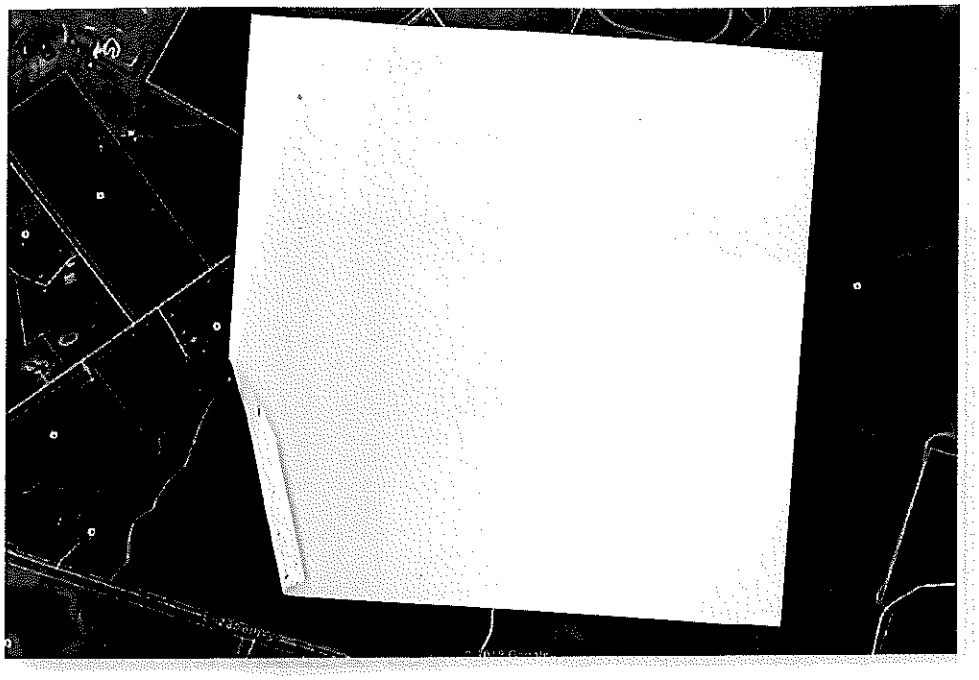
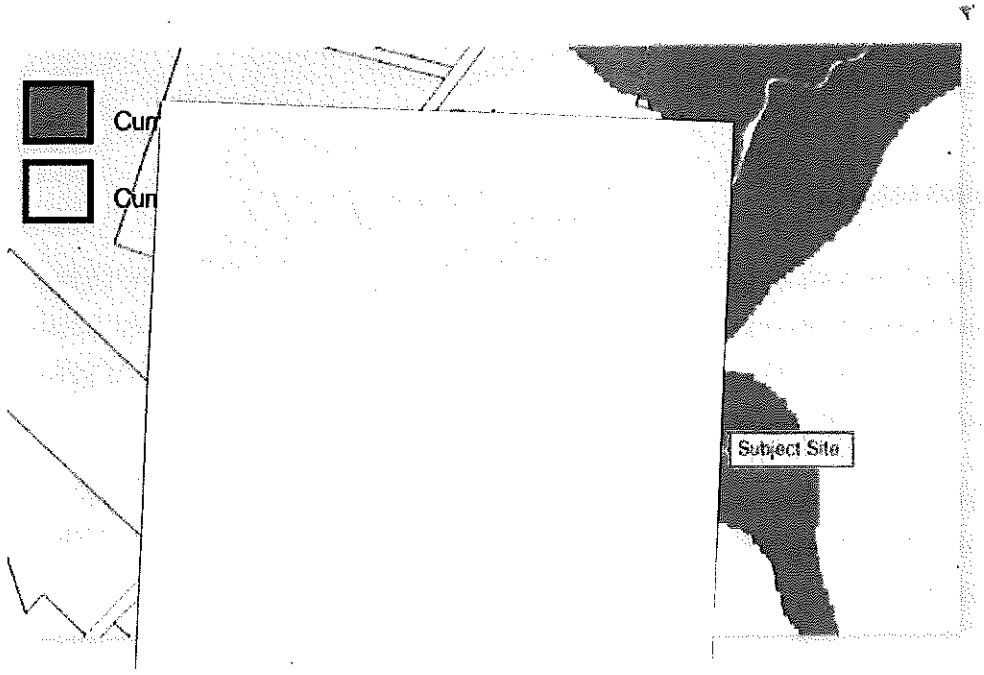


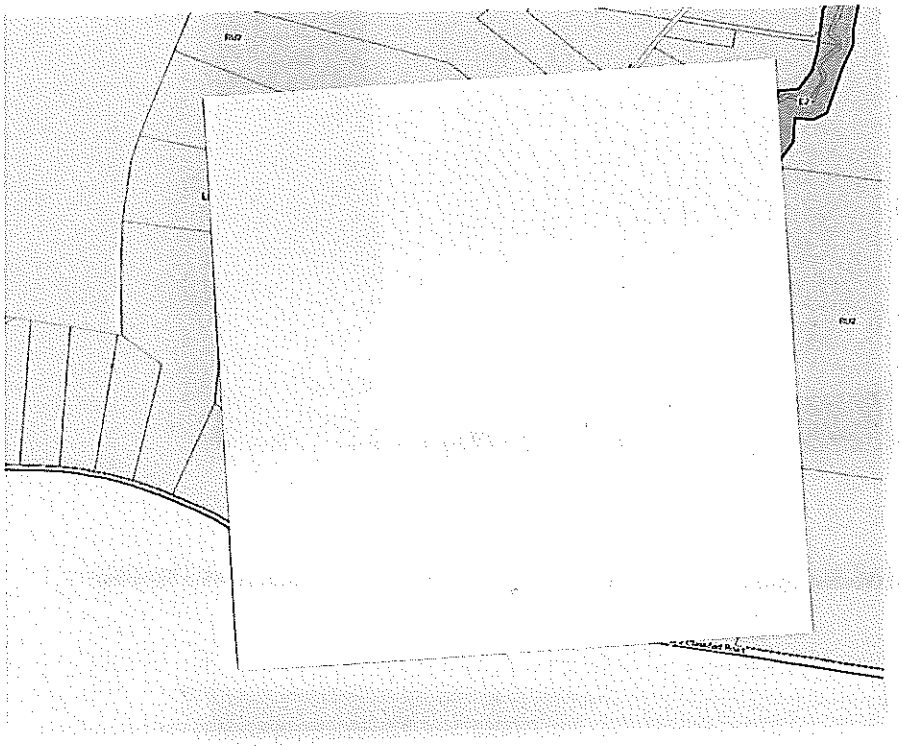
Figure 2: Sketch from the Draft Western Sydney Aerotropolis – Stage 1 Structure Plan with Cadastre Map Showing Proposed Zoning.



CURRENT ZONING

Under the Penrith Local Environmental Plan 2010 Plan, current zoning for The Site is primarily RU2 – Rural Landscape. The riparian corridor is presently zoned E2 – Environmental Conservation.

Figure 3: Sketch from the Penrith Local Environmental Plan 2010 Zoning Map



PROPOSED ZONING (WSA)

The draft WSA Structure Plan shows part of The Site and much of the Northern Gateway Precinct, zoned as Flexible Employment (shown as blue in Figure 2 above). Flexible Employment zoning is integral to the success of the Aerotropolis by providing complimentary and diverse employment opportunities. Cornish Group supports this particular land use zoning and vision.

To the rear of The Site, the WSA proposed zoning changes to Non-Urban (shown as green in Figure 2 above). The extent of this proposed zoning appears to coincide with the Probable Maximum Flood (PMF) inundation area shown below, in Figure 6.

MAPPING TOOL SELECTION & PROPOSED ZONING

Contrary to the PMF mapping tool that appears to have been applied, Cornish Group suggests that a more practical mapping tool for determining the land use zoning boundaries, would be the 1 in 100-year Average Recurrence Interval (ARI) flood inundation levels. This assertion is based largely on:

- the provision of secure evacuation routes from the local environs which the Cornish Group site exhibits; and
- observation of the NSW Floodplain Development Manual guidelines, prescribing when the ARI, versus PMF modelling tool, should be adopted for determining land use purposes (described further on in this document).

By adopting the 1 in 100-year ARI tool, WSA has an opportunity to deliver better land use outcomes with greater provision of Employment Land zoning.

Moreover, using the more practical 1 in 100-year ARI mapping tool for determining zoning boundaries would provide WSA with a more consistent approach to lands surrounding the Aerotropolis, in line with current NSW planning principles.

RIPARIAN CORRIDORS

Cornish Group would like to draw attention to the WSA proposed Non-Urban zoned area along Cosgroves Creek. The proposed zoning, responds to a number of planning principles concerning waterways, in the Greater Sydney Commission's Western City District Plan including:

- Planning Priority W12 - Protecting and improving the health and enjoyment of the District's waterways
- Planning Priority W13 - Creating a Parkland City urban structure and identity, with South Creek as a defining spatial element
- Planning Priority W14 - Protecting and enhancing bushland and biodiversity
- Planning Priority W15 - Increasing urban tree canopy cover and delivering Green Grid connections
- Planning Priority W16 - Protecting and enhancing scenic and cultural landscapes
- Planning Priority W18 - Delivering high quality open space

Cornish Group supports the planning principles above and concurs with WSA that Cosgroves Creek plays a significant role in supporting those objectives.

However, it is also noted, that as a 4th order stream, Cosgroves Creek will require a 40m Vegetated Riparian Zone to observe the guidelines for riparian corridors on waterfront land as prescribed by the NSW Department of Industries Office of Water (See Figure 4 below).

Figure 2. The Strahler System

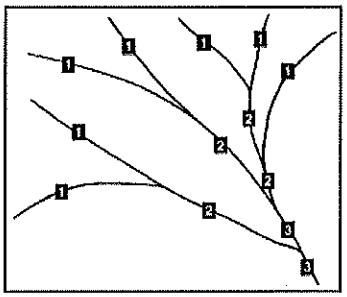


Table 1. Recommended riparian corridor (RC) widths

Watercourse type	VRZ width (each side of watercourse)	Total RC width
1st order	10 metres	20 m + channel width
2nd order	20 metres	40 m + channel width
3rd order	30 metres	60 m + channel width
4th order and greater (includes estuaries, wetlands and any parts of rivers influenced by tidal waters)	40 metres	80 m + channel width

Figure 4: Excerpt from Guidelines for riparian corridors on waterfront land – NSW Department of Primary Industries Office of Water.

The application of the recommended riparian corridor widths shown in Figure 4 above to Cosgroves Creek, would provide a 100m wide corridor which we believe is more than sufficient to achieve the objectives of the waterway planning principles of Greater Sydney Commission's Western City District Plan, noted above.

Moreover, implementing the guidelines along the creek would provide a core buffer/no disturbance zone of 20m in addition to a re-vegetated outer 20m on each side, accommodating cycleways, viewing platforms and BBQ areas for workers and the community.

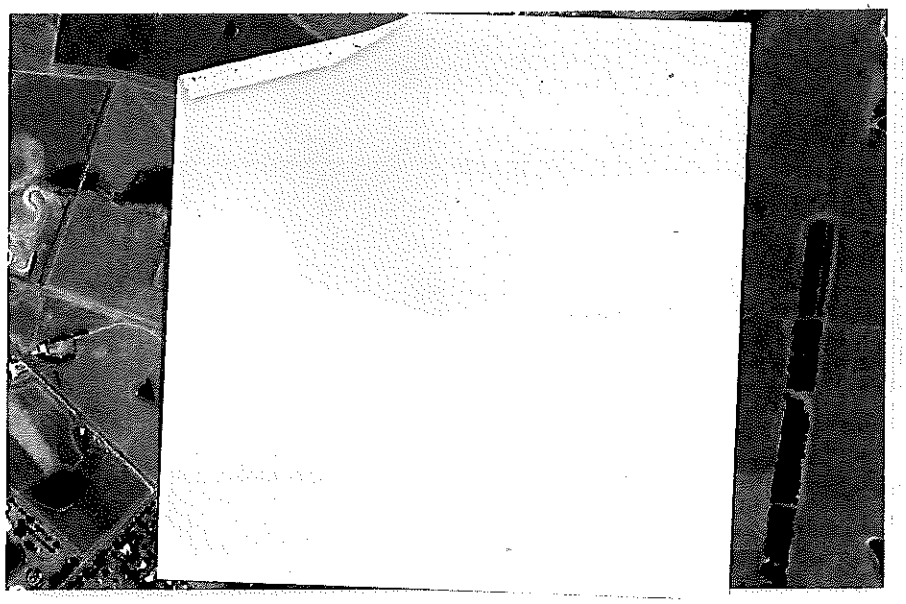
While classified as Non-Urban, we imagine that the land will remain in private ownership and unable to support a number of the Greater Sydney Commission's objectives, including Planning Priority W13, W16 & W18, above. The unintended consequence of currently proposed, Non-Urban zoning, is the delivery of comparatively poor community outcomes. By contrast, Water Management zoning around the riparian corridors provides the opportunity to deliver better land use, access to the open space and openly superior community outcomes than provided for in the current proposal.

Cornish Group therefore submits that a zoning classification of Water Management for such areas, would concurrently observe the Office of Water recommendations for riparian corridors and better achieve the objectives of the Greater Sydney Commission's Western City District Plan.

EXISTING VEGETATION

Figure 5 below, shows the existing vegetation along the banks of Cosgroves Creek. Using the aerial imagery, we can ascertain that the vegetation extends to a maximum of 40m with an average width of around 25m from the banks of Cosgroves Creek. No significant vegetation extends beyond this line.

Figure 5: Existing Vegetation Along The Banks Of Cosgroves Creek



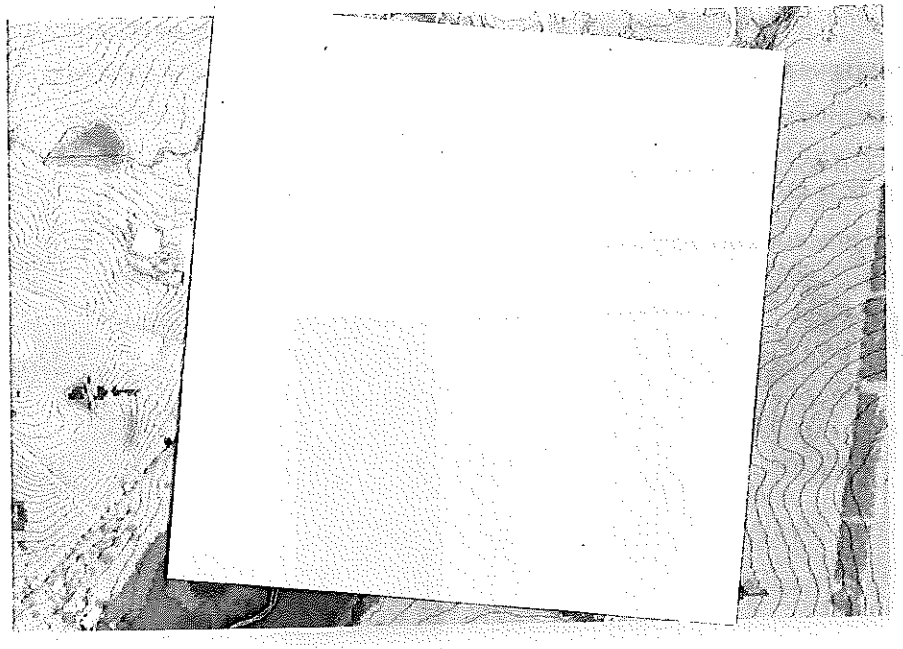
SITE FLOODING

As noted above, The Site is subject to flooding in both the 1 in 100-year Average Recurrence Interval (ARI) and Probable Maximum Flood (PMF) flood events. Statistically however, the 1 in 100-year ARI flood event has an Annual Exceedance Probability of 1%. In lay terms, that amounts to a 1% chance of this storm event occurring in a given year.

Whilst the PMF is much harder to assign an ARI to, the accepted industry guidelines for stormwater and flooding engineering written by Engineers Australia estimates the PMF to be between 1 in 10,000 and 1 in 100,000 years.

The relative extent of both PMF and 1 in 100-year ARI mapping when applied to The Site, is shown in Figure 6, below.

Figure 6: Flooding Extents – 100-Year ARI (Average Recurrence Interval) & PMF (Probable Maximum Flood)



100-year ARI extents: Light blue shading
PMF extents: Grey shading

It should be noted that the modelling extents above have been limited to the approximate extent of the future M12 corridor.

FLOODPLAIN DEVELOPMENT CONTROLS

Based on the mapping presented in the draft WSA exhibition documents, the proposed Non-Urban zone appears to adopt the extent of the Probable Maximum Flood (PMF) inundation zone and is therefore inconsistent with the Employment Land use planning controls applied to these types of areas.

Cornish Group supports good design principles and refers at this point, to the NSW Floodplain Development Manual relating to when PMF, versus ARI mapping should be adopted.

Cornish Group believes that the control principles as defined in the Floodplain Development Manual, support 1 in 100-year ARI based land use zone mapping in the context of The Site and more broadly, the WSA area.

Floodplain Development Controls principally focus on two key areas:

1. No worsening of flooding conditions for upstream and downstream neighbours; and
2. Protection of property and ensuring the safety of the users of a particular building/area/development.

The first point is achieved with detailed flood modelling during the Development Application phase with the use of detention basins, earthworks, appropriate placement of buildings, etc.

Observation of the second Floodplain Development Control, which is key to Cornish Group's proposal herein, is addressed at the rezoning/master planning phase with a range of measures including:

- Ensuring development/buildings are situated in suitable areas above the flood planning level with consideration to the nature of the buildings and their users;
- Ensuring that sufficient warning measures are in place;
- Providing flood free access and egress to the site to allow occupants to evacuate with appropriate site and access road design and grading.

In considering the nature of the buildings and their uses in floodplains, thought must be given to the risk and individual measures required to reduce that risk, afforded by different development and/or building types. An aged care facility for example, would prove highly problematic to evacuate in a flood emergency and as such is not an appropriate building or development type for flood prone areas. A residential property is subject to comparatively less risk as it is assumed that the occupants are more able to evacuate in an emergency.

Employment Lands however, are inherently exposed to far less risk than almost all other land uses; the building occupants (employees) are awake and alert whilst on the premises and are generally mobile and have access to immediate means of escape.

For these reasons, commercial and industrial developments have always been deemed to be acceptable land uses for all areas above the 1 in 100-year Average Recurrence Interval (ARI) flood level.

The following excerpt from Penrith City Council's Development Control Plan is also consistent with this view and cites the following controls for industrial/commercial development within, or adjacent to the floodplain.

Industrial/Commercial - New Development:

a) Floor levels shall be at least 0.5m above the 1% AEP (100-year ARI) flood or the buildings shall be flood-proofed to a least 0.5m above the 1% AEP (100-year ARI) flood. If floor levels are below the 1% AEP (100-year ARI) flood the matters listed in section 7i) – vii) shall be addressed.

b) Flood safe access and emergency egress shall be provided to all new developments.

Based on these controls and observing consistency with current best practice, commercial and industrial land uses are appropriate land uses down to the 1 in 100-year ARI flood level, provided that there is a satisfactory flood management plan and that the building has adequate freeboard to the flood planning level. This allows for temporary inundation in all storms more extreme than the 100 year, including the PMF.

Consequently, Cornish Group recommends implementation of accepted and importantly, *contextually appropriate* Floodplain Development Controls to The Site and as such, that the 1 in 100-year ARI flooding extent is adopted as the principle mapping tool for land use zoning purposes.

Specifically, the revised coverage of Flexible Employment zoning should extend down to Cosgroves Creek to a distance which is equal to the *greater* of:

- a 40m wide Vegetated Riparian Zone;
- the 1 in 100-year ARI flood extent;
- the extent of existing significant ecological communities.

DEVELOPMENT FOOTPRINT

Further support in the adoption of a 1 in 100-year ARI zone mapping tool in favour of a PMF, is provided by the development footprint afforded by each. After the WSA proposed PMF extents have been taken into account, the development footprint is less than 80m wide in some parts of the site. This is due to the PMF being selected as the limit for development but is also exacerbated by the fact that there is an existing farm dam on site which, once removed will result in reduced flood extents.

With a development provision of less than 80m in some parts of the site, the proposed WSA, PMF based zone mapping is not consistent with the spatial requirements for Employment Land zones and prevents the site from realising its potential highest and best use as a source of employment.

CONCLUSIONS AND RECOMMENDATIONS

RECOMMENDATION 1:

REVISE RIPARIAN CORRIDOR ZONING & EXTENT FROM NON-URBAN, TO WATER MANAGEMENT

We acknowledge Cosgroves Creek's role in water management, riparian/ecology and supporting the Parkland City's urban structure, but the currently proposed enhancements and protective measures must be made with the employment objectives of the Northern Gateway Precinct in mind.

Indeed, those same objectives must surely be achieved using established guidelines for development of land in, or adjacent to existing floodplains. The Cosgrove Creek corridor varies significantly to the South Creek Corridor and should be independently considered for best use planning, and by implication, zoning purposes.

Cornish Group therefore does not support the Non-Urban zoning of the Cosgrove's Creek corridor. Our first recommendation is to revise riparian corridor zoning from Non-Urban to Water Management.

RECOMMENDATION 2

ADOPT 1 IN 100-YEAR LAND USE ZONE BOUNDARIES IN LINE WITH CURRENT NSW FLOODPLAIN DEVELOPMENT CONTROL PRINCIPLES

A common-sense approach to flood risk with regard to flood controls in the Flexible Employment zoning must be reflected. It is not logical or feasible to restrict development to an event which occurs on average once every 10,000 – 100,000 years. No other infrastructure is designed for this level of risk (i.e. wind loading, earthquake, cyclones, structure design life, etc). The land use controls related to flooding must be consistent with the inherent risk to life, which is widely accepted as very low for commercial and industrial development.

Cornish Group's second recommendation is to implement planning legislation to the Aerotropolis, whose effect is to reduce the currently proposed zoning embargo on Employment Lands. This can be achieved through the application of land use zoning boundaries determined by 1 in 100-year ARI flood inundation levels, rather than the currently proposed PMF inundation areas.

Implementation of the above delivers a more consistent approach to the lands surrounding the Aerotropolis and importantly, is in line with current best practice NSW planning principles. The outcome is also more consistent with the spatial requirements for Employment Land zones, and allows those within and surrounding the WSA, to meet their potential highest and best use as a source of employment.

Implementing the above will not in any way prevent the Cosgrove Creek corridor from supporting the Greater Sydney Commission's vision for the Western Parkland City. In fact, the above requests will enhance and reinforce them.

The practical outcome of adopting recommendations (1) and (2) above is illustrated in Figure 7, below. The contrasting application of the draft zoning measures currently being considered, is illustrated in Figure 8

EFFECT OF CORNISH GROUP'S RECOMMENDATIONS ON CURRENTLY PROPOSED PLAN

THE SITE: LAND USE MODEL BASED ON THE **IMPLEMENTATION OF CORNISH GROUP RECOMMENDATIONS**

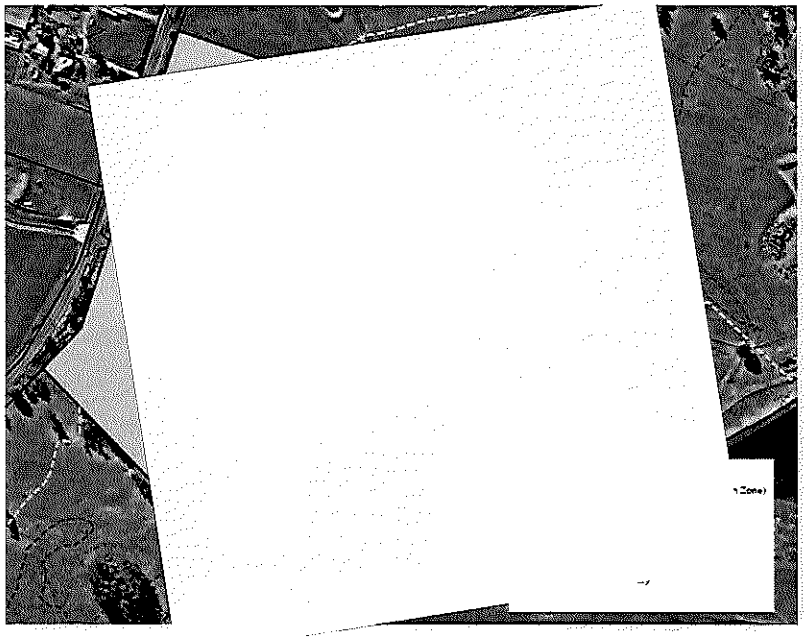


Figure 7: Land Use Model Based on Cornish Group Recommendations

The image above illustrates that the application of **revised Flexible Employment** zoning and **Water Management** (rather than Non-Urban) zoning.

THE SITE: LAND USE MODEL BASED ON THE **CURRENTLY PROPOSED ZONING MAP**

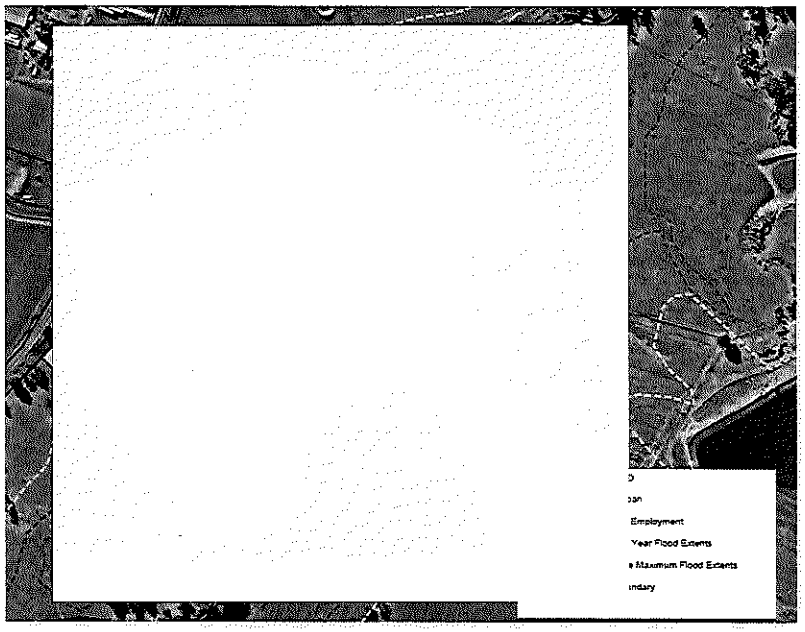


Figure 8: Land Use Model Based on Current Draft Department of Planning &Environment Proposed Zoning Map

The image above illustrates that the application of the current, draft **Flexible Employment** (adopting PMF levels) and **Non-Urban** zoning.

ANNEXURE A: POSSIBLE LAND USE MODEL FOR [redacted]

Contours and Future Development Footprint of the Cornish Group proposed (revised) "Flexible Employment" Zoning integrated with the "Water Management" Zoning.

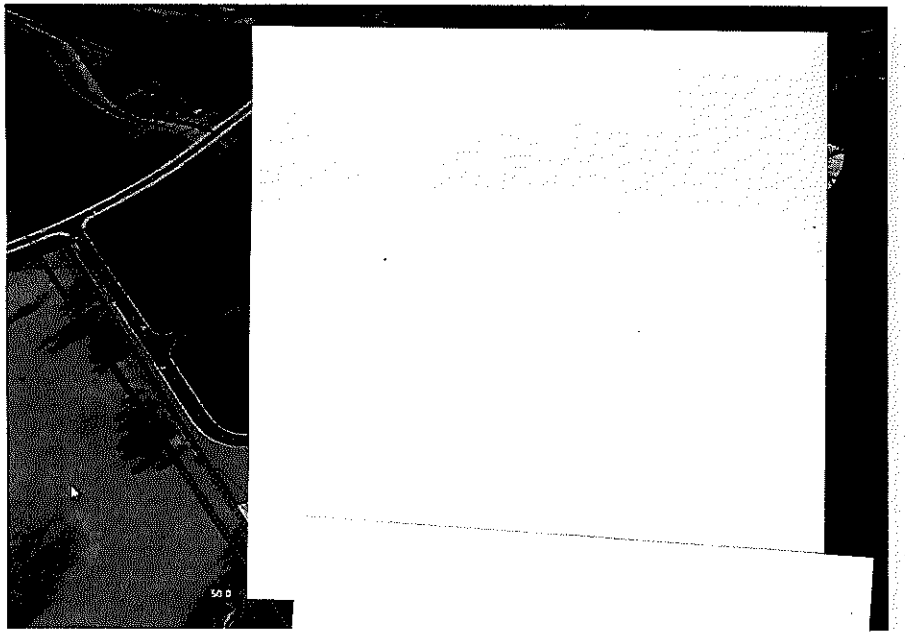


Figure 9: 3d View Of Possible L

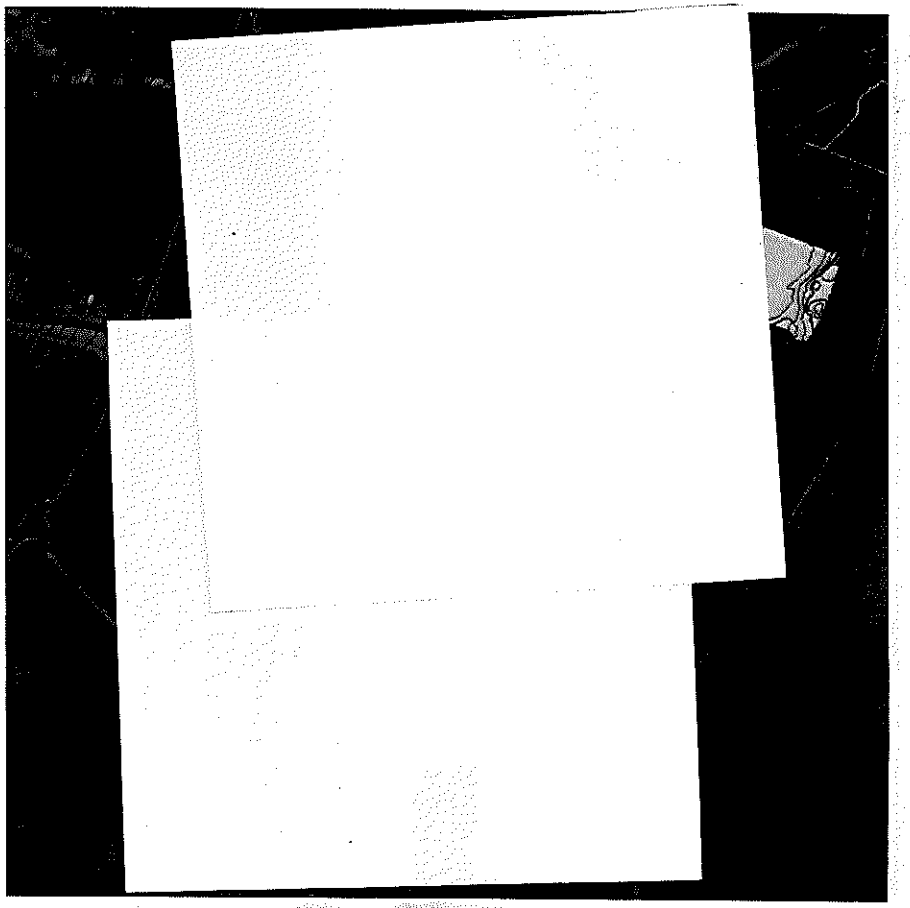


Figure 10: Plan View Of Possible Land Use Model [redacted]

Annexure A provides more detailed land use models based upon the recommendations herein and is provided to further assist the Department of Planning and Environment in their consideration of our proposal.

I would like to take this opportunity to thank you in advance for your complete and thorough consideration of this submission.

Yours Faithfully,

Brett Cornish

Director