From:

system@accelo.com on behalf of Mal Brown

Sent:

Thursday, 1 November 2018 4:49 PM

To:

Subject:

Submission Details for Mal Brown of Northrop (comments)

Attachments:

291786_Submission to Aerotropolis LUIIP.pdf

Confidentiality Requested: no

Submitted by a Planner: no

Disclosable Political Donation:

Agreed to false or misleading information statements: yes

Name: Mal Brown

Organisation: Northrop (Civil Section Manager)

Email

Address:

Content:

Adoption of PMF to define Non-urban area, see attachment

IP Address: - 163,53,22,66

Submission: Online Submission from Mal Brown of Northrop (comments) https://majorprojects.accelo.com/?action=view_activity&id=291786

Submission for Job: #9552

https://majorprojects.accelo.com/?action=view_job&id=9552

Site: #0

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

.

.

•

,

.

.



Level 11, 345 George Street, Sydney NSW 2000

T (02) 9241 4188 F (02) 9241 4324

E sydney@northrop.com.au ABN 81 094 433 100

Job No. 182508

25th October 2018

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

To whom it may concern a concernation of the contribution and the concernation of the contribution of the concernation of the

RE: Submission to Western Sydney Aerotropolis Draft LUIIP, Stage 1: Initial Precincts

Summary of objection: Adoption of PMF extents to define South Creek Precinct

The creation of a green corridor defined by the PMF (as is proposed in the Draft LUIIP) is unprecedented and unsupported. The riparian lands Guidelines should be used in conjunction with 1% AEP flood extents to define green corridors adjoining waterways in the Aerotropolis lands.

Background

I represent a client who owns land at 50 Kelvin Park Drive, Bringelly. The site has a total area of 20,000m². According to the LUIIP, this land has been provided with indicative zoning comprising two zoning types (Figure 1), as follows:

- Non-urban (South Creek Precinct) approx 98%
- Aerotropolis Core approx 2% (450m²)

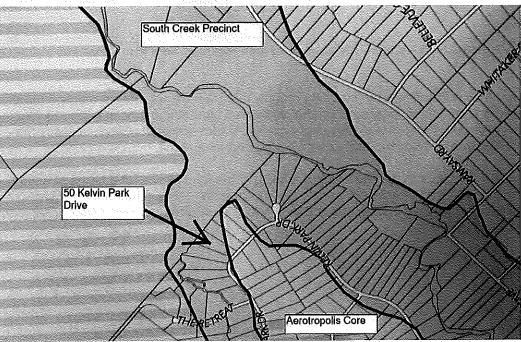


Figure 1: 50 Kelvin Park Road land with proposed indicative zoning shown



It is apparent that the Non-urban zoning has been applied to achieve a green corridor along South Creek and its tributaries. While my client is supportive of the notion of a green corridor, they are opposed to it being defined by the Probable Maximum Flood (PMF) level. This submission explains why.

Current zoning considerations

Council's LEP flood planning area map which covers 50 Kelvin Park Drive is shown in Figure 2. It shows that my client's site is **not within the Flood Planning Area**, and only a small portion of the land in the northwest (<5%) is Flood Prone. It also provides an indication of the likely extent of land available for a green corridor.

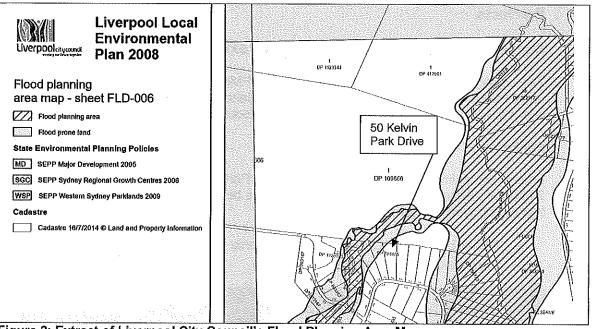


Figure 2: Extract of Liverpool City Council's Flood Planning Area Map

The non-hatched green area (equating roughly to a PMF extent) provides only a marginally increased area of land for green corridor, while also sterilising many lots from development. The benefit derived by way of a slightly larger green corridor does not appear to justify the amount of otherwise developable land that would be sterilized as a result.

Currently, (and prior to the Draft LUIIP), zoning of the land allows for a range of uses as Complying Development, as defined by a Planning Certificate under Section149 of the EP&A Act (Table 1). Specifically, Housing, Commercial and Industrial **development is permitted** on all of the land on 50 Kelvin Park Drive.



Table 1: Extract of s149 Certificate for 50 Kelvin Park Drive, Bringelly

Code	Extent of the land for which development is permitted:	The reason(s) as to why development is prohibited:			
General Housing Code and Rural Housing Code	All				
Commercial and Industrial (New Buildings and Additions) Code	All				
General Development Code, Fire Safety Code, Housing Alterations Code, Commercial and Industrial Alterations Code, Subdivisions Code, and Demolition Code					

Council's s149 Planning Certificate also describes flood-related development controls, including:

- i. Part of the land is within a flood planning area; and
- ii. The land is subject to flood-related development controls

For point ii. it refers to the *Liverpool DCP 2008* for details. Liverpool City Council has characterised the flood risk of the site (Figure 4) as follows:

- 98% Low Flood Risk
- 2% Medium Flood Risk

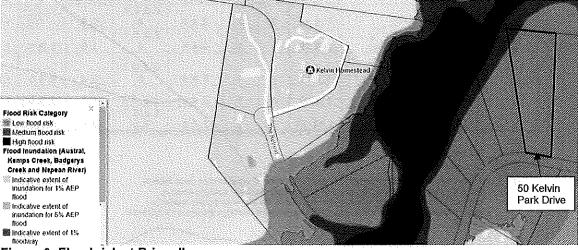


Figure 3: Flood risk at Bringelly

Taking this further, the *Liverpool DCP 2008* (Table 2) states the following in relation to land use in Low and Medium Flood Risk areas in the applicable catchment of Nepean River floodplains (incl. South Creek).



Table 2 Nepean River Floodplains (Includes South Ck, Kemps Ck, Bonds Ck and other tributaries of the Nepean River)

Flood Risk Category	Land Use Risk Category	Planning Controls							
		Floor Level	Building Components	Structural Soundness	Flood Effects	Car Parking & Driveway Access	Evacuation	Management & Design	Fending
Low Flood Risk	Critical Uses & Facilities								
	Sensitive Uses & Facilities	12	4	4	2, 4, 5	2, 3, 6, 7, 8	2, 6, 8	4,5	
	Subdivision	a destination of the second se	ova vienos na vienes i trati	elisierietääntemustenn	2, 4, 5	Selection or decision and necessary processors on the	over the state of the state of the	1,6	and the second s
	Residential (++)	2,6	3	3		2, 3, 6, 7, 8	2,6		
	Commercial & Industrial	2,6	3	3	2, 4, 5	2, 3, 6, 7, 8	1, 6	2, 3, 5	
	Tourist Related Development	1, 6, 15	3	3	2, 4, 5	2, 3, 6, 7, 8	2,6	2, 3, 5	
	Recreation & Non-Urban	1, 9, 15	3	3	- Wilder Committies on Com-	1, 5, 7, 8	6, 8	2, 3, 5	
	Concessional Development	14	3	3		1, 3, 5, 7, 8, 9	2, 6	2, 3, 5	
Medium Flood Risk	Critical Uses & Facilities								
	Sensitive Uses & Facilities								
	Subdivision '		e constante		1, 4, 5	William Street Land Co.		1	1, 2, 3
	Residential	2, 6, 15	3	1	2, 4, 5	2, 3, 6, 7, 8	2,6		1, 2, 3
	Commercial & Industrial	2, 6, 15	3	1	2, 4, 5	2, 3, 6, 7, 8	1, 6	2, 3, 5	1, 2, 3
	Tourist Related Development	1, 6, 15	3	1	2, 4, 5	2, 3, 6, 7, 8	2, 6	2, 3, 5	1, 2, 3
	Recreation & Non-Urban	1, 9, 15	3	1	2, 4, 5	1, 5, 7, 8	6, 8	2, 3, 5	1, 2, 3
	Concessional Development	1, 14, 15	3	1_	2, 4, 5	1, 3, 5, 7, 8, 9	2, 8	2, 3, 5	1, 2, 3

Key:

Not Relevant

Unsultable Land Use

1, 2, 3

Control reference number relevant to the particular planning consideration. (see Table 6) Attached dwellings, Dwelling houses, dual occupancies, multi unit dwelling housing, residential flat buildings (not including development for the purpose of group homes or seniors housing), Secondary dwellings and Semi-detached dwellings are exempt from these controls.

Table 2 indicates that various land uses are applicable, subject to them demonstrating compliance with specific flood-related criteria. Typically, Table 6 in Council's DCP Chapter on Flood Risk lists flood criteria for Low Flood Risk land as habitable floor levels which range from the 20% AEP to the 1% AEP flood plus 500mm freeboard.

Council's existing development controls for flooding (as stated above) appear to strike a balanced outcome of development coupled with flood protection. They represent the norm as applied in New South Wales. They allow for a range of developments to occur on the land, subject to meeting various flood planning criteria.



Council's flood controls are also consistent with the NSW Floodplain Development Manual - the management of flood liable land (April 2005). Specifically, the 1% AEP (or 1:100 year) flood level is adopted as the Flood Planning Level for the state. The PMF is not considered as a Flood Planning Level in the Manual.

In summary, prior to the Draft LUIIP, my client owned developable land with some minor flooding constraints. With the proposed Draft LUIIP, my client (and other landholders in the vicinity) will own land that is largely undevelopable (Non-urban). The adopted Draft LUIIP planning control is the PMF which relates to flooding. However, in this case the PMF defines a green corridor and is unrelated to flooding. The conflation of PMF and green corridors to create a zoning for planning purposes is unprecedented, and its merit is questionnable.

Adoption of the PMF to define a Non-urban zone is unprecedented and unsupported. The 1% AEP level should be adopted as the appropriate flood planning level for this zone.

Riparian corridors

The Guidelines for riparian corridors on waterfront land (NSW Office of Water 2012) adopts the Strahler method to recommend Vegetated Riparian Zone (VRZ) widths for waterways in NSW. These VRZ widths have been specifically defined to provide a range of important environmental functions, such as:

- Providing bed and bank stability and reducing erosion
- Providing water quality by trapping sediment, etc.
- Providing diversity of habitat for flora and fauna
- Providing connectivity of wildlife habitats
- Conveying flood flows
- Provide an interface or buffer between developments and waterways
- Providing passive recreational uses

The maximum VRZ width in the Guidelines is for 4th order waterways (rivers) and is 40m wide. Thompsons Creek (to the immediate north of the site) is a 2nd order waterway, requiring only a 20m wide VRZ. To be conservative, we have applied a maximum 40m wide VRZ to Thompsons Creek (Figure 4). The resulting VRZ affects a very small portion of the north-western corner of the



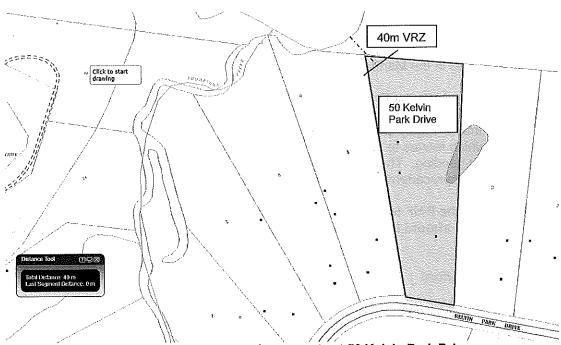


Figure 4: 40m VRZ and its minor effect on the property at 50 Kelvin Park Drive

A fully functioning green corridor (Non-urban zone) can be created adjoining the site by applying the riparian Guidelines.

Conclusion

The basis of this submission is the unnecessary and unjustified sterilisation of developable lands arising from the Draft LUIIP. This is based on the following points:

- The PMF is nothing more than a conceptual flood extent, and is not a planning instrument (as is proposed in the Draft LUIIP). Its use is in this context is objected to.
- The 1% AEP flood extents should be used to define developable (Aerotropolois Core) lands in the LUIIP.

The creation of a green corridor defined by the PMF (as is proposed in the Draft LUIIP) is unprecedented and unsupported. The riparian lands Guidelines should be used in conjunction with 1% AEP flood extents to define green corridors adjoining waterways in the Aerotropolis lands.

Yours sincerely

Mal Brown

Senior Environmental Engineer Northrop Consulting Engineers