

18 December 2019

Contact: *Stuart Little*
Telephone: 02 9865 2449
Our ref: D2019/148523

Greater Sydney Place and Infrastructure
NSW Department of Planning, Industry and Environment
GPO BOX 39
Sydney NSW 2000

Dear Sir/Madam,

RE: Draft Mamre Road Structure Plan and Mamre Road Precinct Rezoning

I refer to the Draft Mamre Road Structure Plan, the associated Mamre Road Precinct Rezoning Exhibition Discussion Paper (Discussion Paper) and related appendices, exhibited to support the proposed rezoning of the Mamre Road Precinct in Western Sydney.

The Mamre Road Precinct rezoning has potential implications for the Warragamba Pipelines Corridor, which WaterNSW owns and manages. The Corridor borders the northern boundary of land under the Structure Plan and is immediately downstream of the Precinct. It contains two pipelines which transfer water from Warragamba Dam to the Prospect Water Filtration Plant and neighbouring Prospect Reservoir, and provide approximately 80% of Greater Sydney's water supply. The Corridor is a Controlled Areas declared under the *Water NSW Act 2014* and *Water NSW Regulation 2013* and public access is prohibited.

WaterNSW holds particular concerns about the risk of increased stormwater flows into, and flooding of, the Corridor. This could cause impacts on the Pipelines by eroding and undermining the supporting anchor blocks, damaging access roads, blocking and damaging existing stormwater management devices, and by generally preventing maintenance and management in flood affected areas. As the Pipelines are critical water supply infrastructure, it is essential they are safeguarded from stormwater and flooding impacts. The rezoning and associated development also raises issues regarding security, accessibility and maintenance of the Pipelines.

When new development adjoins the Pipelines Corridor, proponents are advised to take into account the requirements of the WaterNSW publication [Guidelines for development adjacent to the Upper Canal and Warragamba Pipelines](#). Further information on the Warragamba Pipelines Corridor can be found on the Water NSW website.

We also note that two small unzoned areas of the Pipelines are affected by the boundary adjustment of the WSEA SEPP's operation. This does not appear to affect the SP2 zoning of the Pipelines, however, we seek clarification as to whether or not the land will remain unzoned within the auspices of the WSEA SEPP.

Detailed comments are provided in Attachment 1. If you have any questions regarding the issues raised in this letter, please contact Stuart Little at stuart.little@waternsw.com.au.

Yours sincerely



CLAY PRESHAW
Manager Catchment Protection

Attachment 1

The following comments discuss the following issues:

- Land Use Context
- WSEA SEPP Boundary Amendments
- Flooding Risk
- Stormwater
- Security, access and Maintenance – Warragamba Pipelines
- Proposed Water-related Clauses
- DCP Flooding Provisions
- Other

Land Use Context

The Mamre Road Precinct is currently comprised mainly of rural residential purposes, including small farms and market gardens. The proposed rezoning will deliver the following zones: IN1 General Industrial, E2 Environmental Conservation, RE1 Public Recreation, RE2 Private recreation and SP2 Infrastructure. The proposed zoning map also includes hatched Transport Infrastructure Investigation Area overlay.

Zoning and associated planning controls for the Precinct will come under the auspices of State Environmental Planning Policy (Western Sydney Employment Area) 2009 (WSEA SEPP) rather than the Penrith Local Environmental Plan 2010 (the LEP) or the proposed Aerotropolis SEPP.

Zoning of Land Bordering the Pipelines

The Pipelines Corridor is zoned SP2 and will be unaffected by the Precinct rezoning. However, it appears that two areas of the Corridor to the west of the Mamre Road Precinct will be affected by the wider change in the boundary of the WSEA SEPP (discussed below).

Land bordering the Pipelines Corridor is currently zoned RU2 under the Penrith LEP, except for Mamre Road which is zoned SP2. Changes to the WSEA SEPP will see the land abutting the Pipelines Corridor rezoned to IN1, with the land running parallel to the Corridor designated as Transport Infrastructure Investigation Area in order to allow for the proposed Western Sydney Freight Line. Land immediately south of the Freight Line is proposed to be zoned E2 on the western edge of the Precinct. The remaining land is zoned IN1 with E2 land proposed in the east.

IN1 General Industrial zoning: The proposed list of permissible uses permitted by the IN1 zoning on page 15 of the Discussion Paper is slightly different to the permitted uses designated for IN1 zones under the *Standard Instrument—Principal Local Environmental Plan*:

- WaterNSW supports the exclusion of offensive or hazardous industries as stated. However, to minimise the risk of local incidents affecting the serviceability of the Pipelines Corridor, we also believe that industries dealing with flammable materials, such as service stations, should be excluded from land immediately abutting the Pipelines or Freight Line.
- WaterNSW also requests the Department to consider including zoning objectives for the IN1 zone that includes: ‘to minimise any adverse effect of industry on surrounding land uses and infrastructure’. Such objectives would help protect the Warragamba Pipelines and minimise the risk of adverse environmental impacts from new industrial developments.

Environmental Conservation: The Draft Structure Plan shows the location of the Potential Intermodal Terminal overlapping with land proposed for Environmental Conservation. If the Intermodal Terminal proceeds, this will reduce the overall allocation of green space which would otherwise be available to assist in stormwater absorption and retention, and buffer the Pipelines Corridor from upstream stormwater flows. It is unclear how the tension between these two competing uses will be reconciled. WaterNSW supports the retention of vegetation and the E2 zoning of land to buffer stormwater impacts on the Pipelines.

WSEA SEPP Boundary Amendments

Unzoned Land

The boundary of the WSEA SEPP is proposed to be modified so that the SEPP only applies to land that has undertaken precinct planning under the WSEA SEPP. Land areas identified within the Aerotropolis LUIIP will be removed from the WSEA SEPP and addressed within the proposed Aerotropolis SEPP. WaterNSW supports this approach as it rationalises the number of environmental planning instruments (EPIs) applying to a particular area.

Removal of the Aerotropolis LUIPP overlap area from the WSEA does not alone address removal of all the unzoned lands. The Discussion paper identifies six other parcels of unzoned land that will revert to local planning controls. The explanation surrounding these six sites is confusing. It is unclear as to whether these areas will be removed in totality from the WSEA SEPP or whether these lands will continue to lie within the boundaries of the SEPP but remain unzoned to attract the LEP zoning controls:

- WaterNSW recommends that the former approach be adopted in order to simplify the number of EPIs applying to these lands.

Importantly, two of the six areas impact the Warragamba Pipelines, albeit west of the Mamre Road Precinct. It appears that the removal of these two areas is to do with a mapping anomaly between the Aerotropolis LUIPP area and the unzoned land covered by the WSEA SEPP. These two parcels of land are proposed to revert to SP2 Infrastructure (Water Supply System) under the Penrith LEP:

- WaterNSW supports the intent to revert these lands to the SP2 zoning controls of the Penrith LEP. However, we seek clarification as to whether or not the land will remain unzoned within the auspices of the WSEA SEPP.

Flooding Risk

WaterNSW is concerned that the flooding risk arising from the development has been underestimated and that there may not be sufficient 'green space' to buffer the flooding risks arising from development:

1. The Discussion Paper does not take into account the flood risk created by the 780 hectares of industrial rezoning on downstream uses and infrastructure, or on the Precinct itself.
2. The allocation of additional open space to buffer stormwater effects and flooding risk should proceed later SEPP and Development Control Plan (DCP) provisions, upon which the Proposal relies heavily to address flooding impacts.
3. The Proposal does not take into account the potential increased flows into the Kemps Creek Farm dam and its possibility of failure, adversely affecting downstream uses and infrastructure, and indeed the north-west area of the Precinct.
4. The Probable Maximum Flood (PMF) mapping (Figure 8) appears to be inconsistent with that depicted in the recently exhibited South Creek Floodplain Risk Management Study and Plan (Figure 8-1).
5. There is apparently a Precinct-based flood study in preparation which would refine the flood risks arising from and to the Precinct. These results would help inform the flood risks at a local level and the allocation and location of open space within the Precinct to buffer flooding impacts.

WaterNSW believes the flooding risk needs to be re-evaluated before the area is rezoned.

WaterNSW also notes the alignment of the western boundary of the Precinct with the 1 in 100 year flood event:

- WaterNSW requests the Department consider extending the RE1 Drainage / Open Space zone above the 1% AEP up to the boundary of the Probable Maximum Flood (PMF) extent to minimise the risk of stormwater runoff from industrial land increasing the stormwater velocities, volumes and flooding risk to the Warragamba Pipelines.

Industrial Rezoning Effects on Flooding Risk

WaterNSW is concerned that the proposed changes to the WESA SEPP will adversely affect the flooding risk to the Warragamba Pipelines which occur immediately downstream of the Precinct. Flooding and floodwaters can impact on the Pipelines by eroding and undermining the supporting anchor blocks, damaging access roads, blocking and damaging existing stormwater management devices, and by generally preventing maintenance and management in flood affected areas. As the Pipelines are critical water supply infrastructure, it is essential they are safeguarded from any increase in the flooding risk.

WaterNSW is specifically concerned that the IN1 zoning, which will predominate in the Precinct, will result in increased stormwater runoff volumes and velocities entering South Creek, Kemps Creek (including the Kemps Creek Farm Dam), and Ropes Creek, and thereby increase the susceptibility of the Pipelines to flooding risk and associated damage. WaterNSW believes that the increased downstream flooding risk brought about from the IN1 rezoning, including to the Pipelines, has not been given due account in the Discussion Paper.

The Precinct drains towards Kemps and South Creeks in west, which converge into South Creek just upstream of the Warragamba Pipelines in the north-west. The eastern portion of the Precinct drains towards Ropes Creek which crosses beneath the Pipelines north-east of the Precinct.

The Discussion paper contemplates the risk of flooding impacts on the Precinct, identifying that the Precinct is affected 1 in 100 chance per year and the PMF along the South Creek, Kemps Creek and Ropes Creek corridors. However, it does not consider the impacts and interaction of the industrial rezoning on the flooding risk arising from the Precinct. The discussion on Flood Risk and associated Map (Figure 8) appears predicated on current land-use (i.e. rural) and the associated perviousness of surface soils and vegetation, rather than the 780ha of what will largely be impervious Industrial land. This has the potential to affect the flooding risk in the lower elevations within, and on land uses and infrastructure downstream of, the Precinct. Similarly, the South Creek Floodplain Risk Management Study and Plan recently exhibited by Penrith Council did not appear to contemplate the industrial zoning proposed for the Mamre Road precinct and the implications for flood risk and flood levels for that area or immediately downstream. So there appears to be an absence of consideration of the impacts to flood risk that will actually be generated by the proposed rezoning.

Reliance on Development Controls and Other Measures Following Rezoning

As identified above, current commitments to addressing flood risk rely on development control processes following rezoning rather than informing the choice and location of land-use zones. This includes reliance on new WSEA clauses and existing requirements for DCPs to address flooding risks. While WaterNSW supports these provisions (see below), it notes that this places the onus on processes, procedures and heads of consideration after rezoning has occurred. It also places many of these responsibilities on the development of individual sites. At these stages, any opportunity to allocate sufficient public open space to buffer stormwater impacts and flooding risk will have passed.

Kemps Creek Farm Dam

The Precinct drains towards Kemps Creek and the large Kemps Creek Farm Dam in the west. This dam is not shown on any of the Figures nor is it discussed in the Discussion Paper. While the farm dam lies outside the Precinct boundary, rezoning of rural land to industrial land and associated industrial development is likely to significantly increase flows into the dam. The recent South Creek Floodplain Risk Management Study (Figure 8-1) identified that the risk of Kemps Creek Farm Dam failure has not been previously assessed and that the potential impacts on the Warragamba Pipelines are unknown. In its recent submission to Penrith Council on the Flood Study, WaterNSW identified concerns over the risk of the farm dam failing under extreme conditions and that the potential effect on the Warragamba Pipelines needed to be assessed in consultation with WaterNSW as a priority (See also Table E1, and page SS7 of the Floodplain Risk management Study). Taking into account, the above:

- WaterNSW considers that the risk of the Industrial rezoning and development contributing to increased flows into Kemps Creek Farm Dam, and the potential risk of farm dam failure, should be assessed as a priority and prior to rezoning proceeding. It is advised that this be done in consultation with Penrith Council.
- WaterNSW recommends that stringent stormwater management controls should be introduced into a supporting DCP for the Precinct (discussed below).

PMF Extent

The Flood PMF levels as presented in Figure 8 appears to vary from that depicted in the recently exhibited South Creek Floodplain Risk Management Study and Plan (Figure 8-1). The two documents should have consistent mapping:

- WaterNSW suggests that Department liaise with Penrith Council to resolve the boundaries of the PMF extent, as this will potentially influence zoning and development controls that will apply to the Precinct under the WSEA SEPP.

In our recent submission to Penrith Council on the South Creek Floodplain Risk Management Study and Plan, in relation to the land immediately north of the junction of South Creek with the Warragamba Pipeline Corridor, we recommended that the Study include a recommendation to retain the current zoning and minimum lots sizes applying to the E4 and RU2 land out to the PMF. This was to minimise the risk of development increasing the flood risk to the Pipelines and the potential effect of the Pipelines on flood flows and paths in peak events. This was based on the zoning of the *Penrith Council Local Environmental Plan 2010*. This RU2 land is now potentially affected by the rezoning for the Mamre Road Precinct:

- WaterNSW encourages the Department to liaise with Council and ensure that the 1 in a 100 year flood and PMF levels are consistent with the South Creek Floodplain Risk Management Study, and that based on the most current information and modelling available. We also request the Department exclude IN1 General Industrial land from the PMF to maximise the ability of the floodplain to retain pervious surfaces, absorb stormwater and reduce downstream stormwater and flooding risks to the Pipelines.

Precinct-based Flood Study

We note that a government inter-agency working group has been established and a consultant engaged to assess the impact of earthworks, potential development scenarios and the blue/green grid on flooding in the South Creek catchment. Preliminary results of this work are due in mid-2020. According to the Discussion Paper, this will inform the extent of development that can be achieved on land in between the 1 in 100 chance per year flood extent and the PMF. WaterNSW supports this approach but considers that the rezoning proposal and WSEA SEPP amendments should be informed by the outcomes of work:

- WaterNSW recommends that the rezoning amendments be reviewed in light of the outcomes of the consultancy and open space areas increased to reduce downstream flooding risks.

Stormwater

WaterNSW is concerned that the proposed rezoning of the Precinct to IN1, and particularly that land adjoining the Corridor, will result in increased stormwater impacts to the Warragamba Pipelines during storm events. This includes from impacts such as stormwater volume, velocity or direction during the construction and operational phases of the development. It is also essential that stormwater is not impeded from leaving the Corridor. In order to maintain serviceability and access of the Warragamba Pipelines, it is essential that the Pipelines Corridor is protected along its length from any stormwater impacts arising from adjoining development. WaterNSW's *Guidelines for development adjacent to the Upper Canal and Warragamba Pipelines* provide further clarity and guidance on this issue.

Currently, the Discussion Paper gives brief attention to the stormwater issue and provides little commitment in terms of how the Precinct will address stormwater management. The Paper refers

to the Department working with Sydney Water regarding options for integrated water management including stormwater, and that this includes implementation of the South Creek Sector Review and opportunities to promote water sensitive urban design (WSUD). We note, however, that the Discussion Paper proposes to introduce a clause for waterway health which is to include stormwater management provisions (see below).

Security, access and Maintenance – Warragamba Pipelines

It is important that urban designs facilitate easy access and maintenance of the infrastructure and do not adversely affect the security of the Pipelines infrastructure. To this end, adjoining urban areas should be designed with public open space and perimeter roads bordering the Corridor, thereby minimising security and other risks that can arise when individual private lots backing onto the Corridor. The current zoning patterns does not provide for this, so this design will need to be relegated to later development plans. Pending the outcomes of discussions with DPIE, one option is to seek an amendment to cl 6 of Schedule 4 of the WSEA SEPP to call up the application of the WaterNSW Guidelines when development adjoins the Pipelines Corridor.

Proposed Water-Related Clauses

The Discussion Paper flags that the proposed amendments to the SWEA SEPP will include new clauses for waterway health and flooding. The waterway health clause is proposed to address stormwater and water management requirements but within the context of targets that seek to preserve and protect waterway health, habitat, hydrological regimes and water quality. WaterNSW supports the introduction of such a clause but believes that the SEPP may be better served by having a separate clause for stormwater management and one for waterway health. The former tends to focus on the water management within the development site while the latter focuses on off-site impacts.

In framing the stormwater provisions, the Department could consider the stand-alone stormwater clauses of the Blue Mountains and Ku-ring-gai LEPs. WaterNSW also recommends that the clause should include:

- the objective and requirements that post-development stormwater flows leaving a development site should equate with those pre-development
- the adoption of water sensitive urban design (WSUD) principles including on-site water retention and re-use and maximising the use of permeable surfaces
- requirements for development to have a neutral or beneficial effect (NorBE) on water quality.

WaterNSW recommends that the proposed clause be prepared in consultation with Sydney Water and Environment, Energy and Science (EES).

WaterNSW is also supportive of the proposed adoption of a flooding clause requiring consent authorities to consider the cumulative and local impacts of development on the whole floodplain within the PMF and 1 in 100 year flood level. WaterNSW considers that this clause would benefit by a stronger focus on consideration of the impacts of development on the *flood risk*, not just the floodplain. Also, we ask that the clause be framed in such a way that the consideration is not just limited to the floodplain and flood risk of the Precinct, but specifically extended to include consideration of impacts on downstream uses and infrastructure (e.g. Warragamba Pipelines).

DCP Flooding Provisions

We note that Schedule 4 of the WSEA SEPP requires a comprehensive flood analysis to be undertaken as part of the preparation of a DCP for a site. The DCP can be prepared for the entire Precinct or part of a Precinct. Schedule 4 requires the analysis to consider flood behaviour on and off the site (including existing and planned development in the wider area) and viable strategies to manage any adverse impact of proposed development on flood behaviour. WaterNSW is supportive of this provision applying to the Mamre Road Precinct. To address the flooding issue

comprehensively and strategically, our preferred position is for such a DCP to be developed for the entire Precinct as opposed to DCPs being developed for sub-Precinct scales.

Other

- The proposed indicative service hub in the north-west of the Precinct (as depicted on the Structure Plan) may warrant repositioning further east to remove it from the PMF limit, given that the upstream failure risk of the Kemps Creek Farm Dam has yet to be investigated. This would reduce the concentration of population exposed to flooding risks in this area.
- The sentence at the top of page 26 requires clarification. It seems to be saying that Land not rezoned under the WSEA SEPP does not attract the zoning provisions of the LEP and that consent is require for a consent authority rather than from it?
- The following statement on page 26 requires clarification: 'The proposed amendment will not include a savings provision is not proposed to apply to unzoned land under the WSEA SEPP'.
- Section 3.2 discusses the alignment of the eastern boundary with the 1:100 year flood line, when this appears to have occurred to the western boundary.
- Section 2.2 identifies that the development will include 54ha of public recreation and 50ha of infrastructure. It is unclear how many hectares of land are proposed for private recreation.