

Figure 7: Riverstone West ILP

Salinity Assessment and Management Plan and Salinity Report

The DCP has been amended to include additional requirements for salinity assessment and management in the form of a Precinct-wide Salinity Assessment and Management Plan and a Salinity Report. This addresses the comments by DECC that detailed salinity assessment and preparation of a salinity management plan have not been undertaken as part of the Precinct Planning process. These will be dealt with most appropriately at DA stage.

Transport Management and Accessibility Plan

A Transport Management and Accessibility Plan (TMAP) has been included as a Precinct-wide plan that must be adopted by Council to facilitate the DA process (Table 3 in the DCP) and satisfy the requirements of the Roads and Traffic Authority (RTA).

Lodgement requirements in relation to flood and water cycle management

The lodgement requirements have been consolidated for DAs where flooding and water management provisions apply to ensure an integrated approach to flood and water cycle assessment and management is achieved.

The DCP will now require four key reports, as opposed to the eight separate reports required in the Section 4.3 of the draft DCP. The revised lodgement requirements will include:

- A precinct-wide Floodplain Management Strategy (FMS), which is a revised version
 of the Floodplain Management Plan. Specific requirements are included in Appendix
 C of the DCP (as was the case previously), which incorporates requirements for the
 preparation of a Staging Plan and Flood Emergency Response Plan as part of the
 strategy.
- A Precinct-wide Integrated Water Cycle Management Strategy (IWCMS), which replaces the requirement for a Total Water Cycle Management Plan. Specific requirements are in included in Appendix D of the DCP, which incorporates requirements for the preparation of a Groundwater Assessment and Management Plan as part of the IWMS.
- An Integrated Water Cycle Management Report (IWCMR), which is required at lot and/or building DA stage and will incorporate an Erosion and Sediment Control Plan or Soil and Water Management Plan, a Drainage Plan, a Maintenance Plan and Structural Assessment as part of the IWMR.
- A Cut and Fill Plan at lot and/or building DA stage, which will replace the Fill Plan.

These studies must be prepared in accordance with Floodplain Development Plan 2005 and must demonstrate compliance with the precinct-wide Floodplain Management Strategy and Integrated Water Cycle Management Strategy where relevant.

Street types, vehicular access and parking (Sections 3 and 5)

Minor amendments to the provisions for streets, access and parking have been made in response to the feedback from submissions and in consultation with Council. The street

sections shown in Section 3.1.2 have been amended to address design requirements for the inclusion of water sensitive urban design measures in the road reserve.

Riparian corridors (Section 4.6)

As requested by DWE, the DCP has been amended to give effect to the North West Growth Centre Waterfront Land Strategy (NWGCWLS), which sets out the outcomes and requirements for permissible development on land containing riparian corridors in the North West Growth Centre, including Riverstone West.

Section 4.6 of the DCP has been amended to require the provision of riparian corridors to be in accordance with the NWGCWLS and to address DWE's concerns regarding permitted uses in the core riparian zone (CRZ) and vegetated buffer (VB). Table 10 in the exhibited DCP has been replaced with specific controls for development regarding core riparian zones and vegetated buffers.

In response to DWE's request to distinguish the CRZ and VB from adjacent open space areas, Figure 26 of the DCP, showing the Riverstone West environmental corridor has been amended to clearly show the CRZ and VB within the environmental corridor. Uses appropriate within each of these areas are detailed in the NWGCWLS. **Figure 8** of this report provides further details regarding the vegetation offsets required by DECC and DWE.

Integrated water cycle management (Section 4.3)

Section 4.3 Total Water Cycle Management has been renamed as Integrated Water Cycle Management. As part of the ongoing work between the Department, Council and the relevant consultants regarding flooding and stormwater issues, this section has been revised in accordance with the revised requirements for flood and water cycle assessment and management.

European heritage (Section 4.9)

Section 4.9 of the DCP has been amended to reflect the identification of No. 17 Richards Avenue cottage and the Riverstone Meatworks group of cottages as items of local heritage significance. Additional objectives and controls have been included to require the future of these items to be investigated.

Special Area controls (Section 6)

Section 6.1 Vineyard Business Area

At the time of writing, Transport Infrastructure Development Corporation's (TIDC) concept plan for the relocated Vineyard Station had not yet been determined by the Minister for Planning. Subsequently, site specific controls for the Vineyard Station area, including the northern part of the current concept plan, have been removed from the DCP. The DCP has been amended to require the preparation of a master plan for the station area when the location of Vineyard Station is confirmed. The DCP provides specific design principles for the area which must be considered in the proposed master plan for the site.

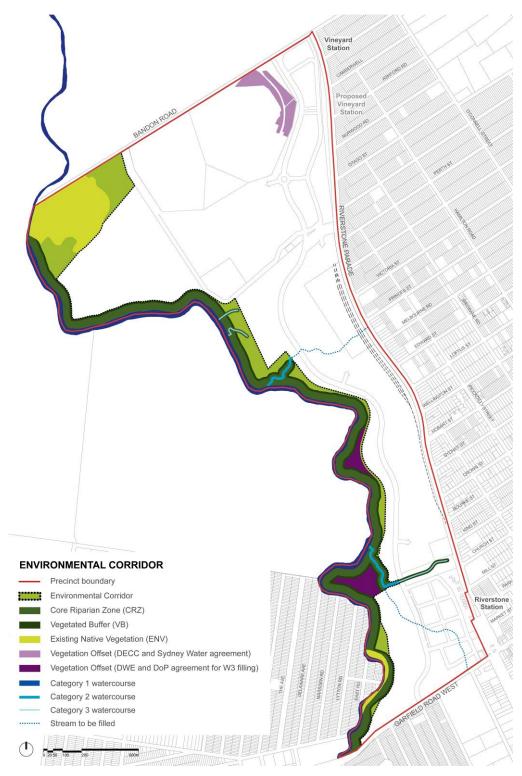


Figure 8: Environmental corridor showing Core Riparian Zone, Vegetated Buffer and vegetation offsets.

Section 6.4 Intermodal Terminal

To address changes to the zoning of the site of the potential IMT, site specific controls for the IMT are included in the DCP. The DCP will specify the size, shape and location of an IMT, with requirements for a master plan and Environmental Assessment to be prepared at DA Stage.

Exempt and Complying Development (Appendix B)

The provisions stipulated in Appendix B Exempt and Complying Development in the DCP will remain until such time as there is certainty on the status of the draft NSW Code for Exempt and Complying Development for Commercial Development.

Complying development is not allowed in the E2 zone which includes the land identified as Native Vegetation Protection and the broader native vegetation area within the environmental corridor.

Floodplain Management Strategy (Appendix C)

Appendix C: Floodplain Management Strategy (FMS) has been revised to address all catchments affecting the site, not only the Eastern Creek mainstream catchment, in order to address potential impacts on the eastern side of the railway line. The FMS will include requirements for updated flood studies for all catchments affecting the site and present a Flood Emergency Response Plan.

Integrated Water Cycle Management Strategy (Appendix D)

Appendix D: Integrated Water Cycle Management Strategy has been included in the DCP to provide detailed guidance on the preparation of this Strategy. It outlines objectives for the strategy, the strategy content and format and additional strategy requirements.

4. CONSISTENCY WITH STATE POLICIES

4.1 NORTH WEST GROWTH CENTRE STRUCTURE PLAN

The proposed plans are generally consistent with the North West Structure Plan, apart from the following:

- Areas of flood liable land have been made available for development through the proposed implementation of the Eastern Creek Floodplain Management Plan contained in the draft Riverstone West DCP
- The town/village centre identified between Riverstone and Vineyard Stations will not occur but is reflected in terms of activity generation within the Riverstone West Industrial Area
- No residential development (as considered in the reports associated with the Structure Plan map) is proposed. Detailed Precinct Planning determined that employment generating development is a more appropriate land use on this site;

4.2 GROWTH CENTRES DEVELOPMENT CODE

The proposed plans are generally consistent with the Growth Centres Development Code, with the exception of matters where site specific controls are required or where it has been determined that consistency with Council's current controls should take precedence. The key departures from the Growth Centres Development Code requirements include:

Riparian Corridors

Detailed investigation during the Precinct Planning led to the stream known as "W3" (as shown in Figure 11 of the Riverstone West Precinct Planning Report) to be categorised by Department of Water and Environment (DWE) as a Category 2 stream. The Development Code provides specific objectives for Category 2 streams:

- 1) To maintain and restore the natural functions of a stream and its aquatic and terrestrial qualities
- 2) To maintain the viability of native riparian vegetation
- 3) To provide suitable habitat for local terrestrial and aquatic fauna.

DWE have agreed to the partial filling of stream W3 in order to accommodate a fill platform to enable the potential intermodal facility, in recognition of the broader environmental opportunities associated with maximising rail access for both employment and freight movement, as well as the significant regional linkage opportunities which development of the Precinct offers through the Eastern Creek corridor.

Flood Prone Land

The Development Code deals with both flood prone lands defined under the Growth Centres SEPP and that which is defined by the Probable Maximum Flood (PMF). Flood prone land is proposed to be filled above the 100 year ARI flood event without causing impacts to adjoining properties.

Comprehensive review and assessment of the exhibited flooding and water management reports was undertaken in response to concerns over the adequacy of the initial flood modelling and assessment. Further work has been undertaken in consultation with Council to ensure strict controls are in place in the DCP to ensure consistency with technical findings particularly additional flood and water cycle management studies (Precinct-wide and lot level) in order to achieve zero flood impacts on all flood catchments affecting the site, independent of the tolerances.

Street sections

The Development Code provides numerical guidelines for street cross sections. Detailed urban design and functional consideration in consultation with Council and the Roads and Traffic Authority (RTA) has resulted in a street hierarchy which is consistent with the Code but designed specifically to relate to the nature of industrial, light industrial and commercial uses.

The street sections for Riverstone West have been amended to show that the total road reserve width is subject to the width of the median required to accommodate a bioretention swale. The land take requirements for bioretention/swales are dependent on the level of stormwater treatment required.

The Pedestrian Street section has been amended to provide sufficient width to accommodate emergency access to buildings.

4.4 BIODIVERSITY CERTIFICATION

Biodiversity Certification under the *Threatened Species Conservation Act, 1995* (TSC Act) was conferred upon the Growth Centres SEPP in December 2007 and confirmed in July 2008 via an Amendment to the TSC Act. Relevant Biodiversity Measures underpin the certification and must be satisfied by DECC and the Department in order to maintain certification across the Growth Centres.

In accordance with Relevant Biodiversity Measure 35, an assessment of the consistency of Riverstone West Precinct Plan with the biodiversity certification was undertaken and is summarised in the table below:

General requirements	Draft Conservation Plan	Precinct Planning outcomes	Assessed consistency
2,000 ha of "existing native vegetation" (ENV) retained	16.3 ha of ENV is identified within the Precinct to be	No non-certified ENV is to be cleared within the Precinct.	Outcomes are consistent with the requirements of the
across the Growth Centres.	retained or otherwise offset.	4.3 ha of ENV is certified.	order.
Any clearance of ENV within Non-	The identified protected native	15.1 ha of ENV is to be retained within the Precinct.	This includes the extent of vegetation to be retained, the types of
Certified Areas required to be offset in accordance with the Biodiversity Certification Ministerial Order.	vegetation is located within the E2 Environmental Conservation Zone. The identified environmental corridors along the alignment of Eastern Creek are also located within the E2 Environmental Conservation Zone.	Key protection mechanisms are achieved through the application of controls in the Precinct Plan to restrict the clearing of ENV in accordance with the Relevant Biodiversity Measures.	protection mechanisms used, and the requirement to maintain and improve biodiversity values.
	Conservation Zone.	Development incentives are included to encourage holistic management and rehabilitation of the native vegetation in the E2 Environmental Conservation zone.	
		The requirements of Part 6 of the Growth	

General requirements	Draft Conservation Plan	Precinct Planning outcomes	Assessed consistency
		Centres SEPP have been transferred in to the Precinct provisions (clauses 6.8 and 6.9) to facilitate ready inclusion of the requirements when the Precinct Planning provisions are transferred in to the Blacktown LEP.	

4.5 SECTION 117(2) DIRECTIONS

Whilst the *Growth Centres SEPP Amendment (Riverstone West Precinct) 2009* is not strictly required to comply with the Section 117(2) Directions as issued by the Minister under the *Environmental Planning and Assessment Act 1979*, it is intended that the SEPP Amendment will at some point be incorporated into Council's local planning controls. As such, the SEPP Amendment has been prepared with the intention of achieving consistency with the Directions. An assessment of consistency is included in the following table.

Section 117 Direction Compliance

1. Employment and Resources				
Direction 1.1 – Business and Industrial Zones	The Riverstone West ILP proposes a business park, light industrial and general industrial uses. The Precinct will contain 117 hectares of employment land. The SEPP Amendment is consistent with this direction.			
Direction 1.2 – Rural Zones	The Riverstone West Precinct is currently predominately zoned 1(a) General Rural under Blacktown LEP 1988 and as such the direction applies. The rezoning of the land for predominately industrial and business purposes is inconsistent with the direction. However, the inconsistency is justified as it is consistent with the North West Structure Plan, Growth Centres SEPP, and with the draft North West Subregional Strategy as allowed for in the direction.			
Direction 1.3 – Mining, Petroleum Production and Extractive Industries	The direction is not applicable to the Riverstone West Precinct.			
Direction 1.4 – Oyster Aquaculture	The direction is not applicable to the Riverstone West Precinct.			
2. Environment and Heri	tage			
Direction 2.1 – Environmental Protection Zones	The plan includes provisions to facilitate the protection and conservation of environmentally sensitive areas through the E2 and RE2 zones and the provisions and mapping relating to protected vegetation. These controls relate to existing vegetation and land in the riparian zone of Eastern Creek that will form part of the passive open space provision for the Precinct. There are no areas of land in the Precinct that are currently zoned for environmental protection purposes.			
Direction 2.2 – Coastal Protection	The direction is not applicable to the Riverstone West Precinct.			

Section 117 Direction	Compliance	
Direction 2.3 – Heritage Conservation	Fifteen items in the precinct are currently identified under Blacktown LEP 1988 as being of local heritage significance. The current listing of 14 of these items is maintained. The current local significance listing of the cottage at No 7 Richards Ave is not retained, in recognition by Council and the Department of its inconsistency with the preferred Precinct development plan.	
	With regards to Aboriginal heritage the areas of 'Moderate to High Archaeological Sensitivity' generally correspond to the proposed riparian zone/conservation area. However, prior to any landfill or work being undertaken in these areas, an inspection by representatives of the three Aboriginal groups will determine any archaeological significance attributable to the land. Areas of 'Low Archaeological Sensitivity' are those locations containing evidence of moderate-to-high levels of historical disturbance. Their conservation is not considered imperative. As part of the development of this Precinct the destruction or disturbance of these sites will be avoided, but where they cannot, applications pursuant to Section 90 of the <i>National Parks and Wildlife Act 1974</i> will be made.	
Direction 2.4 – Recreation Vehicle Areas	The direction is not applicable to the Riverstone West Precinct.	
3. Housing, Infrastructur	e and Urban Development	
Direction 3.1 – Residential Zones	The proposed zoning of the Riverstone West Precinct does not include any residential zones, therefore the Direction does not apply.	
Direction 3.2 – Caravan Parks and Manufactured Home Estates	Caravan parks and manufactured home estates are not permissible uses within the proposed zones of the plan. However, the inconsistency with the direction is justified as the provision of such land uses would be inappropriate in this location and the objectives for the land to accommodate employment generating uses and recreation lands.	
Direction 3.3 – Home Occupations	Dwellings are not permitted within the B7, IN1 and IN2 zones, which are targeted for the establishment of employment generating uses. The plan is inconsistent with the direction but the inconsistency is of minor significance.	

Section 117 Direction	Compliance	
Direction 3.4 – Integrating Land Use and Transport	The objective and requirements of the direction are achieved through implementation of the requirements of the Growth Centres Development Code and consistency with the adopted North West Structure Plan. Specifically, the SEPP Amendment proposes to zone land for commercial, retail and industrial purposes close to the Vineyard and Riverstone railway stations, and the ILP includes the requirement for the provision of bus routes and cycleways.	
Direction 3.5 – Development Near Licensed Aerodromes	The Riverstone West Precinct is north of the Schofields Aerodrome, a Royal Australian Navy facility. However, it is no longer operating as an aerodrome and the Department of Defence is acting to dispose of the site. The provisions of the direction are therefore not relevant to Riverstone West Precinct.	
4. Hazard and Risk		
Direction 4.1 – Acid Sulfate Soils	Not relevant to the Riverstone West Precinct.	
Direction 4.2 – Mine Subsidence and Unstable Land	The Riverstone West Precinct is not within a mine subsidence district. The site will be subject to extensive earthworks and there	
and Onstable Land	are no significant issues with land stability in the Precinct.	
Direction 4.3 – Flood Prone Land	The development of the Precinct must be undertaken consistent with the Flood Plain Management Plan prepared for the area. The controls and provisions of the plan ensure that the prepared Flood Plain Management Plan must be implemented before significant development can be undertaken. The Flood Plain Management Plan dictates the approach to the management of filling to provide land above the predicted flood levels and to ensure overall flood storage capacity is not reduced in the flood plain.	
	The plan is consistent with the direction	
Direction 4.4 – Planning for Bushfire Protection	The SEPP Amendement is consistent with the direction and provides for appropriate Apses and perimeter roads having regard to Planning for Bushfire Protection 2006.	
5. Regional Planning		
Direction 5.1– Implementation of Regional Strategies	These directions do not apply	
Direction 5.2 – Sydney Drinking Water Catchments	to the Riverstone West Precinct.	

Section 117 Direction	Compliance		
Direction 5.3 – Farmland of State and Regional Significance on the NSW Far North Coast			
Direction 5.4 – Commercial and Retail Development along the Pacific Highway, North Coast	These directions do not apply to the Riverstone West Precinct.		
Direction 5.5 – Development in the Vicinity of Ellalong, Paxton and Millfield			
Direction 5.6 – Sydney to Canberra Corridor	-		
Direction 5.7 – Central Coast			
Direction 5.8 – Second Sydney Airport: Badgerys Creek	-		
6. Local Plan Making			
Direction 6.1 – Approval and Referral Requirements	The SEPP Amendment is consistent with the Direction and does not contain provisions requiring concurrence, consultation or referral which have not been approved. The plan does not identify any development as designated development.		
Direction 6.2 – Reserving Land for Public Purposes	The SEPP Amendment does not create, amend or reduce any existing reservations without approval.		
Direction 6.3 – Site Specific Provisions	The SEPP Amendment does not include provisions at this time to permit particular development on specified lands. The inclusion of the potential for later listing of such uses within Schedule 1 is consistent with the Standard Instrument (Local Environmental Plans) and the Direction.		

Riverstone West Precinct Post Exhibition Report

APPENDIX 1: SUMMARY OF SUBMISSIONS

Riverstone West Precinct Post Exhibition Report	

Post Exhibition Planning Report
August 2009

Appendix 1

Summary of Submissions



Purpose of this Document

The purpose of this document is to provide a summary of the submissions received following the exhibition of the draft precinct planning documents for Riverstone West in March 2009.

This document should be read in conjunction with the **Riverstone West Post-Exhibition Planning Report**. For further background information, please refer to the full package of Riverstone West Precinct Planning Draft Exhibition Documents available at www.gcc.nsw.gov.au.

This document also provides a response for each of the issues raised in the submissions.

Structure of this Document

This document contains a number of summary tables for each of the matters raised across the submissions. These tables have been grouped into categories under the following sections:

Section A1: General SEPP Issues

This section contains summary tables for issues raised in regards to the SEPP.

Section A2: General DCP Issues

This section contains a summary table for issues relating to the DCP.

Section A3: Indicative Layout Plan Issues

This section contains a summary table for issues relating to the Indicative Layout Plan.

Section A4: Voluntary Planning Agreement Issues

This section contains a summary table for issues relating to the Voluntary Planning

Agreement.

Section A5: Key Issues

This section contains summary tables for flood and fill, infrastructure, heritage and urban capability.

Each table is further categorised by the author of the submission:

- Government Agencies
- Other Organisations
- General Public

Each submission has been given an author number. For individual landowner submissions, this number has the prefix 'IL' (Individual Landowner).

A summary is provided of each issue raised under each matter with a corresponding response from the Department of Planning (DoP). Each response is denoted by:

- a prefix, which relates to the matter
- a number, which relates to the author; and
- another number, which relates the specific issue

The Riverstone West Post-Exhibition Planning Report explains the rationale behind how these issues have been addressed in the final Riverstone West Precinct Planning package.

A1. GENERAL SEPP ISSUES

Α	SEPP INSTRUMENT			
No.	Author	Issue Summary	Respor	nse
GOV	ERNMENT AGENCIES			
3	Department of Environment and Climate Change	DECC supports the E2 Environmental Conservation zone and Clause 6.2 and 6.3.	A3-1	DoP to discuss with DECC
		Remove environmental facilities, information and education facility, kiosk, recreation and water bodies (artificial) from 'permitted with consent' category.	A3-2	There are no changes to permissible uses in the E2 Environmental Conservation zone. These uses are generally intended for the land outside the 50m riparian zone (40m Core Riparian Zone and 10m Vegetated Buffer) but within the E2 zone. Permissible uses within the CRZ and VB are in accordance with the Waterfront Lands Strategy for Riverstone West. Riparian corridors are also protected in the SEPP under Clause 6.7 Development Controls – Native Vegetation Protection. The permitted uses also provide opportunities for ownership and management of riparian corridors so that compulsory acquisition by Council is not required.
6	Ministry of Transport	SP1 zoning of Intermodal Facility to be changed to IN1, with Intermodal Terminal (IMT) to be a permissible use.	A6-1	The zoning for the Intermodal Facility has been amended to IN1, with Freight Transport Facilities identified as a permitted use. The DCP identifies the location for the IMT in Section 6.4 Intermodal Terminal (IMT).
14	Roads and Traffic Authority (RTA)	Ensure that child care centres are effectively prohibited where such properties have a direct frontage to existing or future arterial roads. The following control should be added under Clause 5.4 Controls relating to miscellaneous permissible uses: (10) Child Care Centres If development for the purposes of a child care centre is permitted under this Precinct Plan, the site must not have direct access and/or frontage to an unclassified regional road and/or classified road (existing or proposed).		 This matter is dealt with in the DCP: Under Section 3.1.2 Street Types, Table 5 stipulates driveway access from sub-arterial roads is not permitted. Under Section 5.7.2 the following control has been included: 'Child care sites must not have direct frontage and/or direct access to Spine Road'.
		RTA supports the inclusion of clause 5.12 (1) in draft SEPP amendment in ensuring that "Roads" are permitted without consent through provisions in the State Environmental Planning Policy (Infrastructure) 2007.	A14-2	Noted.
17	Blacktown City Council	Council expresses concern for rezoning proceeding in absence of a NSW Government commitment to bringing forward the proposed Richmond Railway Line duplication and a final decision and timing on the Garfield Road overpass.	A17-1	Noted. The precinct planning for Riverstone West has been undertaken in the context of State Government commitment to deliver key infrastructure for the North West Growth Centre as it is needed.

A SEPP INSTRUMENT				
No.	Author	Issue Summary	Respon	se
18	Department of Water and Environment	Clause 19 (2) should be amended in the following manner:	A18-1	Clause 19(2) is merely a renumber of the existing clause 19 and
		(h) in the case of development consisting of the excavation or filling of land, whether or not the development		does not apply to Riverstone West. The reference is the Waterfront Land Strategy should not be in the
		(vi) will adversely impact on any watercourse, riparian vegetation (existing vegetation and/or the rehabilitation of riparian vegetation), drinking water catchment or environmentally sensitive area		SEPP. It is appropriately referenced in the DCP.
		(i) whether or not the development will be undertaken in a manner that is consistent with the Waterfront Land Strategy for the precinct		
		DWE recommends the objectives of the E2 zone specifically refer to waterways and riparian corridors and suggests the following amendment is made to the first objective:	A18-2	The E2 zone is not just about waterways and riparian areas. The existing objectives are sufficiently broad to address the importance of Waterways and riparian areas.
		(1) To protect, manage and restore areas with special ecological, scientific, cultural or aesthetic values including waterways and riparian corridors		
		The permissible uses listed under the E2 zoning (with the exception of 'environmental protection works') should not be permitted within the riparian corridors. The SEPP needs to be amended to ensure inappropriate uses are not permitted within the riparian corridors. Uses such as flood mitigations works, kiosks, recreation areas, water bodies (artificial) should only be permitted in the open space areas which are located adjacent to the riparian corridors. The Waterfront Land Strategy for the precinct will identify that only the following uses are permissible with consent within the CRZ and VB:	A18-3	The permitted uses are necessary to avoid a potential acquisition. The DCP will address appropriate controls regarding the core riparian zone and vegetated buffer. Clause 6.7 also contains restrictions.
		 Environmental protection works Drainage 		
		Crossings (e.g. roads, service utilities, paths) DWE does not exprest to action uses a such as well-increased in the service at the ser	A 4 O 4	NI_st_al
		DWE does not support locating uses such as walking, cycling and other passive recreational activities along/within riparian corridors.	A18-4	Noted.
		It is recommended that the following objective be added in IN1 and B7 zoning with regard to watercourse W5A:	A18-5	The decision to allow the category 3 watercourse to be modified is reflected in the zoning of the land.
		 to protect and rehabilitate waterways as natural systems and protect and/or rehabilitate vegetated riparian corridors 		

Α	SEPP INSTRUMENT			
No.	Author	Issue Summary	Respons	5e
		1.2 Aims of Precinct Plan: the definition of environmentally sensitive areas needs to be amended to include all riparian corridors and waterways. Alternatively, the Aims of the Precinct Plan need to specifically refer to the protection and restoration of riparian corridors and waterways.	A18-6	It is not appropriate to specifically identify waterways and riparian areas in the aim.
		SEPP needs to refer to the Waterfront Land Strategy and include a subclause which clearly outlines that the WLS will prevail over any other EPI including the Growth Centres SEPP. A clause needs to be included stating that the consent authority must now grant consent to development within the riparian corridors unless it is satisfied that the proposed development is consistent with the WLS for the precinct.	A18-7	The Waterfront Land Strategy will be referred to in the DCP.
		3.1 Exempt development: d) can not be carried out within waterways and riparian corridors	A18-8	Clause 3.3(2)(k) has this effect.
		3.2 Complying development: There is a need to add waterways and riparian corridors to the definition of environmentally sensitive areas. Alternatively the SEPP should include the following amendment: The section states that development cannot be complying development if: (g) The development is to be carried out within waterways and riparian corridors.	A18-9	Clause 3.3(2)(k) has this effect.
		There is a need to add waterways and riparian corridors to the description of environmentally sensitive areas (cl. 3.3(2).	A18-10	It is not necessary to include waterways and riparian corridors to the description of environmentally sensitive areas as 3.3(2)(k) covers this.
		Clause 5.9(1) should also apply to the rehabilitation of native vegetation particularly in relation to the riparian corridors.	A18-11	This is a standard clause and relies on the provisions of a DCP. No change proposed.
		DWE expressed concern that Clause 5.11 permits bush fire hazard reduction work without consent on any land including the riparian corridors. All APZ setbacks need to be such so there is no need to undertake hazard reduction in the riparian corridors (CRZ and VB).	A18-12	This is a standard clause from the LEP Template. No change proposed.
		6.2 Development in Zone E2 Environmental Conservation: 3) Despite any other provisions of this Precinct Plan, the consent authority must not grant development consent for development on land to which this clause applies unless it is satisfied that the proposed development will be undertaken in a manner that is consistent with the Waterfront Land Strategy and has considered a vegetation management plan that relates to all of that land.	A18-13	The Waterfront Land Strategy is referenced in the DCP, not in the SEPP.

Α	SEPP INSTRUMENT			
No.	Author	Issue Summary	Respon	se
		 6.3 Subdivision of other development of certain land: DWE recommends the following amendment be included in Clause 6.3 (3): 4 Despite any other provisions of this Precinct Plan, the consent authority must not grant consent for subdivision of land to which this clause applies or any other development on that land unless it is satisfied that: (b) Those arrangements (i) provide for the ongoing monitoring, maintenance and management of that land and is consistent with the Waterfront Land Strategy. 	A18-14	The Waterfront Land Strategy is referenced in the DCP, not in the SEPP.
OTHE	ER ORGANISATIONS			
1	North West Transport Hub	Permissibility of 'Light Industry' and its subsets in the B7 zone	A1-1	The permissible uses have been reviewed to ensure appropriate uses are permitted. Clause 2.3(3) addresses the issue of where a group term prohibits a range of uses – but a subset of the use is identified as permissible.
		Document should be reviewed to ensure that no uses that are a subset of prohibited uses are actually prohibited all together.	A1-2	Document amended to ensure group terms prohibited and subset of group terms proposed to be permitted shown as bracket.
		Removal of Savings and Transitional Clause 1.8A in order to permit the lodgement of a DA under proposed zoning, prior to that zoning being gazetted, to enable timely delivery of development projects	A1-3	Agree that clause 1.8A could be deleted.
4	Urban Taskforce	Wording of precinct plan aims to be improved, with regards to use of subjective terminology such as "quality environments" or "good design outcomes", difficulty with using "ensure" and clarification of "ecologically sustainable/sustainable development".	A4-1	Terminology reviewed and considered appropriate.
		New clause to be inserted which makes clear that SEPPs override precinct plans. Clauses 1.9(1) and 1.9(3) should be replaced or redrafted.	A4-2	This is a standard provision. No change proposed.
		Retail premises, including bulky goods, should be generally permitted within B7 zone. Neighbourhood shops should not be limited in floor space area in the precinct plan.	A4-3	The intention for Riverstone West is to maximise the amount of land available for commercial development and to support the viability of the adjacent Riverstone town centre. Retail premises a permitted, however bulky goods is prohibited. A floorspace restriction for shops including neighbourhood shops has been maintained in the B7 zone, to ensure an appropriate hierarchy of centres.
		Retail premises should be permitted in industrial zones. If not, bulky goods should be permissible.	A4-4	This position is contrary to the identification of a hierarchy of centres. No change proposed.

Α	SEPP INSTRUMENT			
No.	Author	Issue Summary	Respon	se
		Delete Clause 6.1	A4-5	This clause is to remain as it ensures consideration of infrastructure capability and is based on a broader requirement.
		Minimum FSR to be 3.0:1 with potential for 0.5:1 bonus in return for a commitment to maintain nominated land for community title.	A4-6	FSR is based on a desired built form outcome
		Long prohibited uses lists for B7, IN1, IN2 and E2 zones should be removed	A4-7	Structure of zone has been reviewed consistent with Standard Template and PC instructions.
		There should be no reference to supporting viability of centres in zone objectives for IN2 zone.	A4-8	This is a standard objective from the Template. No change proposed.
GENE	ERAL PUBLIC			
7	Riverstone & District Historical Society	IN2 zoning along floodplain, due to concerns for potential for accidental pollution from IN1 uses.	A7-1	The environmental management of the stormwater and the floodplain is dealt with in DCP under Section 4.5 Contamination Management and Site Remediation.
IL1	John Hood	Concerns for the rezoning of land from 4A to 4B in Riverstone	AIL1-1	This is a matter to be addressed as part of the Riverstone Precinct Planning process.
IL2	Russell Delarue	Concerns for the rezoning of land from 4A to 4B in Riverstone	AIL2-1	Refer to response IL1-1.
IL5	David Selff	Concerns for the rezoning of land from 4A to 4B in Riverstone	AIL5-1	Refer to response IL1-1.
IL8	Maureen Harper	Concern for the amount of conservation area being provided in Riverstone West. Believes conservation component is too narrow in parts and that green space should be increased to include both sides of the floodplain.	AIL8-1	The Riverstone West precinct plan provides the opportunity to rehabilitate and revegetate 57.6 hectares of land along Eastern Creek (identified in the ILP as 'Environmental Corridor') including the Category 1 Eastern Creek riparian corridor and the four riparian corridor tributaries. 18.3 hectares of land will be revegetated beyond DWE's requirements for riparian corridors (core riparian zone and vegetated buffer).
				Opportunities for the rehabilitation of the western side of Eastern Creek will be considered as part of the detailed precinct planning when the Marsden Park North precinct is released.

Α	SEPP INSTRUMENT			
No.	Author	Issue Summary	Respon	se
IL11	Emil Teleki	Concern for the habitation of the Eastern grey kangaroos currently inhabiting the area of Cumberland Woodland vegetation. Believes area between Vineyard and Richmond Road would better serve Sydney basin as farmland for self-sufficient food production.	AIL11-1	10.8ha of Cumberland Woodland vegetation will be retained, as indicated on the Native Vegetation Protection map as part of the SEPP. An additional 6.6ha of land on either side of this patch is zoned E2 Environmental Conservation, with opportunities to revegetate Cumberland Woodland species and provide greater habitat for fauna species found in this area. As illustrated on the North West Structure Plan (Edition 2), the intention for Riverstone West is to provide employment lands for
				the North West Growth Centre and Western Sydney.

В	SEPP MAP			
No.	Author	Summary	Respon	nse
GOVE	ERNMENT AGENCIES			
2	Sydney Water Corporation	Include E2 - Environmental Conservation in the north-east section of Sydney Waters Land (diagram provided).	B2-1	3.67 hectares of E2 conservation zoning has been included within the Sydney Water Sewage Treatment Plant to reflect the amount of vegetation to be preserved, as required by DoP, for vegetation loss as a result of planned future works to be undertaken by SWC for the North West Growth Centre First Release Precincts.
		Operating sewage pumping station currently zoned 5(a) Special Uses to be zoned SP2 Infrastructure.	B2-2	The Land Zoning map has been amended to show the sewage pumping station with SP2 Infrastructure zoning.
3	Department of Environment and Climate Change	Include E2 - Environmental Conservation zoning in Sydney Water land	B3-1	Refer to Response B2-1
14	Roads and Traffic Authority (RTA)	RTA future road widening on Garfield Road West to be included in the LEP maps.	B14-1	The current zoning under Blacktown LEP 1988 of the strip of land along Garfield Road West for future road widening will be retained, with a SP2 Infrastructure zoning. This area of land is also shown in the Land Acquisition Reservation Map to be acquired by the RTA. This will preserve the opportunity for future works by the RTA for road widening on Garfield Road West as part of the Riverstone Overpass works.
18	Department of Water and Environment	The Land Zoning map should distinguish between riparian land (E2) and the adjacent open space areas. It is recommended that E2 zoning apply to riparian corridors only. Alternatively, a riparian corridor overlay should be used to distinguish between	B18-1	Clause 6.7 provides adequate protection to riparian areas. The Native Vegetation Protection (NVP) map shows the riparian land as a hatching named 'Environmental Corridor'. The name 'Environmental Corridor' will be amended to 'Piparian Corridor' on the
		riparian corridors and the open space land.		'Environmental Corridor' will be amended to 'Riparian Corridor' on the NVP map and in the SEPP Instrument.

В	SEPP MAP			
No.	Author	Summary	Respon	nse
GOVI	ERNMENT AGENCIES			
		With the agreed to the partial filling of stream W3, DWE requests details on the 2.4 hectares of offset area which is to be located beyond the riparian corridor.	I18-1	The 2.4 hectare offset area will be provided in the E2 Conservation zone beyond the riparian corridor. The WLS for Riverstone West will identify appropriate location of specific uses. Refer to Figure 2 of the Post Exhibition Planning Report.
GEN	ERAL PUBLIC			
16	Riverstone Residents' Association	Concerns over noise of new industrial areas parallel to residential areas along Riverstone Parade. As such would like to see light industrial zoning in these locations instead.	B16-1	There is no change to the IN1 zoning indicated along the Richmond railway line and Riverstone Parade. Noise impacts are dealt with in the DCP in Section 4.11 Noise, Vibration and Rail related impacts.
		26 storey height limit is out-of-scale and unsympathetic to existing village environment of Riverstone Town Centre. Lower heights are sought	B16-2	The Height of Buildings map shows a lower height limit of 18m (or four storeys) for buildings along the railway with taller buildings up to 26m (or six storeys) located towards Spine Road. It should be noted that under the Standard Instrument (Local Environmental Plans) Order 2006 and Clause 4.3 of the SEPP (Amendment 5), the height of buildings means the vertical distance between existing ground level at any point to the highest point of the building, including plant and lift overruns, but excluding communication devices, antennae, satellite dishes, masts, flagpoles, chimneys, flues and the like. Additionally, commercial floor to ceiling heights are generally higher than residential floor to ceiling heights (3.5m compared to 2.7m), and it is considered that the number of storeys and height of buildings are appropriate to both a business park setting and in relation to the Riverstone town centre. Generally, the height limits proposed ensure that there is sufficient floorspace available for commercial development to be viable, given the limited amount of flood-free land within the precinct. The heights permitted on the Height of Buildings map will not change from the exhibited map.

A2. GENERAL DCP ISSUES

С	DEVELOPMENT CONTROL PLAN			
No.	Author	Summary	Respoi	nse
GOVE	ERNMENT AGENCIES			
2	Sydney Water Corporation	6.1 Vineyard Business Area - Control 2) and Concept plan to be amended to ensure that no retail/service facilities or cafes or restaurants be designated as an acceptable land use with the Sydney Water buffer zone. SWC reiterate Benbow Environmental's comment that food preparation facilities should not be located within the odour buffer zone.	C2-1	Permissible uses in the IN2 zone are included as per the Standard LEP Template, which includes neighbourhood shops to service local employee needs. Specific references to cafes and restaurants have been removed from Section 6.1 Control 2.
		4.3 Total Water Cycle Management - SWC encourage rainwater tanks to be mandatory for all developments in IN2 and IN1 zoning that will connect to a recycled water system. I.e. Amendment to Control 32)	C2-2	The DCP has been amended to require rainwater tanks for all industrial and light industrial zones.
		DoP to continue to instruct developers to obtain a Section 73 Certificate from Sydney Water	C2-3	This control has been included in Section 4.3
3	Department of Environment and Climate Change	1.7.3 Lodgement Requirements (Page 21) - Flood Emergency Response Management Plan (FERP): needs to have regard to 1) protection of the capacity of flood routes established for existing communities beyond Riverstone West, 2) future growth/development inside and outside of Riverstone West, and 3) provision of adequate redundancy in the evacuation route strategy.	C3-1	This is a broader strategic matter that Blacktown City Council should consider as part of the development assessment process.
		1.7.3 Lodgement Requirements (Page 23) - Hydraulic and Hydrological Study (HHS). Flood Debris Mitigation strategy should be required to ensure that blockages greater than 50% do not occur.	C3-2	This issue is addressed as part of the HHS Study.
		1.7.3 Lodgement Requirements: The following plans should make reference to salinity management: Fill Plan, Groundwater Management Plan, Landscape Strategy and Total Water Cycle Management Plan.	C3-3	The DCP has been amended to include additional requirements for salinity assessment and management in the form of a precinct-wide Salinity Assessment and Management Plan and a Salinity Report, in accordance with the recommendations of DECC. The DCP has been amended to require fill, groundwater, landscaping and water cycle management to be addressed.

С	DEVELOPMENT CONTROL PLAN			
No.	Author	Summary	Respor	nse
		Recommendation for requirement of Salinity Assessment which addresses water cycle management, groundwater monitoring and variation to subsoil drainage across the site in accordance with Growth Centres Development Code with reference made to the Local Government Salinity Initiative documents at: http://www.environment.nsw.gov.au/salinity/solutions/urban.htm. Recommendations should be integrated in Riverstone West planning documents.	C3-4	Refer to Response C3-3.
		 1.4.2 Planning documents/4.4 Salinity Management - Reference should be made to the following guidelines: - Building Code of Australia "Building in a Saline Environment" - DECC's "Building in a Saline Environment" Book 6 Local Government Salinity Initiative - Australian Standards relevant for construction in a saline environment. 	C3-7	The DCP has been amended to include references to salinity guidelines and Local Government Salinity Initiative documents in Section 1.4.2 Planning Documents and Section 4.4 Salinity Management,.
		4.3. Total Water Cycle Management (Page 71) - Table 8 need definition of HHF and in Table 9, Control 1 a requirement for	C3-5	The definition for HHF is included in the notes for Table 8 as well as Appendix A Glossary.
		flood compatible structure should be required also as flood compatible building components may not ensure overall structural integrity of building during flooding.		The definition of Building Component in Table 8 has been amended to ensure building structures are designed to withstand flood impacts.
		 4.3. Total Water Cycle Management (Page 71) - Additional objectives should also be included: "To minimise the damage caused to property, vegetation and infrastructure by existing saline soils, or processes that may create saline soils" "To ensure development will not significantly increase the salt load in existing watercourses within the site" "To prevent degradation of the existing soil and groundwater environment, and in particular, to minimise erosion and sediment loss and water pollution due to siltation and sedimentation. 	C3-6	The objectives have been included in the DCP accordingly.
6	Ministry of Transport	Requirement for level crossings to be closed prior to development.	C6-1	The RTA has not yet determined the location for a railway crossing to replace the existing level crossing at Garfield Road. DoP are working together with RTA on options for grade separated intersection on Garfield Road.
				The concept plan for the proposed Richmond railway duplication from Quakers Hill to Vineyard has been publicly exhibited but not yet determined. Level crossings will stay as is until demand for infrastructure upgrades warrants.
12	Integral Energy	Appropriate controls and land use strategies to ensure the long term security of transmission line.	C12-1	Land use controls in the SEPP will ensure the long term security of the transmission line easement. There will be no development potential for this land as fill is not permitted along this easement.

С	DEVELOPMENT CONTROL PLAN			
No.	Author	Summary	Respon	nse
13	Sydney West Area Health Service	Incorporate shade planning and design principles into planning approvals, including open space and recreational areas. Include bubblers and seating in open space areas.	C13-1	Shade planning and public furniture is addressed in 5.4.4 of the DCP. These matters are also addressed in Section 1.7.3 Lodgement Requirements under the Landscape Strategy/Plan.
				This is a detail design matter for consideration at the DA stage.
		Provide smoke-free outdoor areas by declaring publicly managed areas within these precincts - such as sporting grounds, parks including children's playgrounds, pedestrian malls/plazas, bushland, covered bus stops and taxi ranks and outdoor dining areas as smoke-free.	C13-2	This matter is beyond DCP or SEPP controls.
		Pedestrian and cycle ways should be physically separated from heavy vehicle traffic with barriers such as high gutter or vegetation border.	C13-3	Agreed. This design principle is incorporated in the street sections in Section 3.1 of the DCP.
		Provide signage with appropriate information about walking & cycling routes, including destinations, distance and travel time, at appropriate locations.	C13-4	This is a detail design matter for consideration at the DA stage.
		Walking routes, including footpaths, should include adequate rest stops such as shaded seated areas.	C13-5	This is a detail design matter for consideration at the DA stage.
		Ensure adequate bus bays for safe put-down and pick-up, and kiss-and-drop places for parents to briefly set down and see off their children to proposed child care facilities.	C13-6	RTA has a preference against bus bays. Bus stops will be appropriately located to facilitate safe put-down and pick up. Refer to response C14-12 .
		Give consideration to setting lower traffic speeds on major roads in areas of high pedestrian activity.	C13-7	Traffic speeds cannot be determined in the SEPP or the DCP as this is a matter for the RTA to consider.
13	Sydney West Area Health Service	Develop and undertake a program throughout the urban area to monitor and manage mosquito breeding appropriately.	C13-8	Control 6 in Section 4.3.3 of the DCP identifies this issue.
14	Roads and Traffic Authority (RTA)	RTA agrees 'in-principle' with nominated locations for signalised intersections.	C14-1	Noted.
		Preference for off-road cycle facilities. Shared paths should be provided on both sides of the verge of all sub-arterial and arterial standard roads. They should also connect to local and regional pedestrian and cyclist network, for both short local trips and long cross precinct trips.	C14-2	Figure 58 Pedestrian and Cycle Network and the street sections provided in Section 3.1 of the DCP show shared path only on the eastern side of Spine Road due to the location of the employment lands and connections over the railway line at Vineyard and Riverstone stations on this side of Spine Road. The plan has been amended to show this as an off-road cycleway. An off-road cycle path is provided on the western side of Spine Road along the Eastern Creek Riparian corridor.

С	DEVELOPMENT CONTROL PLAN			
No.	Author	Summary	Respon	se
		Consideration for separating pedestrian and cyclists on different paths in open space areas.	C14-3	This is a detail design matter for consideration at the DA stage.
14	Roads and Traffic Authority (RTA)	Cycle links from east to west between the recreational shared path and the shared paths along Eastern Creek and the Spine Road should be provided.	C14-4	Agreed. Figure 58 in the DCP has been amended to show cycleway connections between the recreational shared path along the Eastern Creek riparian corridor and the shared path along the Spine Road.
		Off-road cycleway along Eastern Creek is to be constructed from concrete or similar material acceptable for a Regional Commuter Cycleway.	C14-5	Agreed. This has been included as a control in Section 3.5 Open Space and Public Domain Works.
		Suitable crossing facilities must be provided for both the on- road and off-road cyclist when crossing Bandon Road and Garfield Road West via traffic signals, underpass or overpass.	C14-6	Agreed. This has been included as a control in Section 3.5 Open Space and Public Domain Works.
		Consideration for providing cycleway/pedestrian crossing points over Eastern Creek (approx 1km spacing). The following locations are suggested and should be done in consultation with Blacktown and possibly Hawkesbury	C14-7	The bulk of demand for the bridge crossings will occur at Riverstone West Business Park and Vineyard Business Area. There is low demand for crossings between the Business Park and Vineyard Business Area due to the low number of jobs located in industrial areas.
		Councils:		Low demand for bridge crossing due to lower numbers in industrial
		 Provide 2 additional cycle/pedestrian crossings over the Railway line between Vineyard and Riverstone Railway Stations. 		The existing concrete vehicle bridge crossing over Eastern Creek will be maintained. The ILP has been amended to show this connection.
		 Over Eastern Creek at Clive Road and/or Lytton Road 		
		 Maintain or upgrade or replace the existing concrete vehicle bridge crossing Eastern Creek (located approx 1km north of Garfield Road West) 		
		Opposite the Intermodal FacilityBandon Road		
		Shared cycle and pedestrian path adjacent to Railway line at Bandon Road will require a bridge over the Bandon Road underpass.	C14-8	This could be provided as part of the Richmond railway line duplication.
		Path adjacent to railway link could be relocated to the intersection of the Spine Road and Bandon Road but the	C14-9	There is potential to provide a fully signalised intersection at Bandon Road and Spine Road with the release of the Vineyard precinct.
		roundabout would need to be replaced with traffic signals or provide grade separation as roundabouts are not suitable for pedestrians. These shared cycleway and pedestrian paths should link with the Windsor Road shared path.		The proposed roundabout at the intersection of Spine Road and Bandon Road is intended as an interim measure until there is sufficient need for a fully signalised intersection to service the future Vineyard precinct.
		The Spine Road shared path at the intersection near Denmark Road will need to be traffic signal controlled incorporating a signalised bicycle crossing.	C14-10	This is a detail design matter for consideration at DA stage. This matter should also be considered when a final decision has been made on the Garfield Road overpass.

С	DEVELOPMENT CONTROL PLAN			
No.	Author	Summary	Respons	se
14	Roads and Traffic Authority (RTA) (cont.)	The shared cycle and pedestrian path near Eastern Creek requires a suitable crossing facility or needs to be combined with the proposed traffic signals at Denmark Road.	C14-11	This is a detail design matter for consideration at DA stage. This matter should also be considered when a final decision has been made on the Garfield Road overpass.
		Bus stops best located near the departure sides of signalised intersections.	C14-12	This will included as a control in Section 3.3.
		Section 1.7.3 - A Transport Management and Accessibility Plan (TMAP) is prepared and adopted prior to the assessment of any DA within the Riverstone West precinct. The draft TMAP will need to address and provide more detail on the following key issues (in consultation with Council, RTA and MoT):	C14-13	Agreed. The TMAP (as described by the RTA) will be included in Table 3 in Section 1.7.3 as a precinct-wide plan that must be adopted by Council to facilitate the DA process.
		 traffic/transport infrastructure requirements (based on detailed traffic modelling) 		
		 conceptual layouts of key (major) intersections along Spine Road, Bandon Road and Garfield Road West. 		
		 staging requirements for road/transportation based infrastructure (linked to the provision of overall developed floor space within the Precinct) 		
		 strategies to reduce car use 		
		 possible implementation of modal split targets 		
		Section 5.5.2 Vehicular Access - under the subsections Business Park and Industrial Areas: "For certain	C14-14	The following control will be included in Section 5.5.2 but will only apply in Industrial areas.
		developments provision must be made on-site for the overnight parking of heavy vehicles".		"On-street overnight parking of heavy vehicles will not be permitted. Where necessary, provisions for on-site overnight parking of heavy vehicles must be provided."
				Heavy vehicle movement and parking within the Business Park is discouraged.
		Section 4.11: Noise walls are not permitted. Developments are	C14-15	The following control has been included in Section 4.11:
		required to achieve the required noise criteria for developments impacted by traffic noise through setbacks and site and architectural treatments.		"Noise walls are not permitted along the Spine Road. Noise walls may be permitted along the railway line based on merit assessment."
18	Department of Water and Environment	1.2 Purpose of the DCP: Include 'To give effect to the Waterfront Land Strategy developed for this Precinct'	C18-1	Agreed. The DCP has been amended to give effect to the Waterfront Land Strategy (WLS) for Riverstone West.
		1.4 Relationship to other plans: Include the Waterfront Land Strategy for the precinct	C18-2	The DCP requires all Development Applications (DAs) to be in accordance with the Riverstone West WLS in Section 1.4. The objectives and controls contained in the WLS will override the controls for riparian corridors currently in the DCP.

С	DEVELOPMENT CONTROL PLAN			
No.	Author	Summary	Respon	se
18	Department of Water and Environment (cont.)	1.6 Exempt and Complying development. DCP to specify that development is neither exempt nor complying on land identified as waterways and riparian corridors. Section 1.6.1 should add: "1) To be Exempt Development, the development must not be carried out within waterways and riparian corridors"	C18-3	Refer clause 3.3(2)(k) of the SEPP.
		Section 1.6.2 of the DCP should also outline that development cannot be complying development if it is to be carried out within waterways and riparian corridors.		
		Alternatively or in addition to the above, include riparian corridors in the description of environmentally sensitive areas (as defined in the SEPP (Sydney Region Growth Centres) 2006) that are excluded from exempt and complying development.		
		1.7.3 - Lodgement Requirements- Table 3. DCP should identify that DAs should be in accordance with the WLS for the precinct.	C18-4	Refer to Response C18-2.
		 Landscape Strategy, a landscape concept plan must include Riparian corridors (core riparian zone and vegetated buffer) in accordance with the Waterfront Land Strategy 		
		 Vegetation Management Plan - VMP is to be prepared in accordance with the WLS for the precinct. 		
		 2.2 Indicative Layout Plan - ILP needs to locate pedestrian paths outside the CRZ and VB/environmental corridor. Under Controls add: • The riparian corridors / environmental corridor are to be established in accordance with the ILP. The width of the riparian corridors must not be reduced. Riparian vegetation is to be restored and reinstated within the riparian corridors in accordance with the Waterfront Land Strategy. 	C18-5	The objectives and controls for riparian corridors are contained in the Riverstone West WLS. The DCP refers to the Riverstone WLS for all matters regarding riparian corridors.
		Figure 4 - Riverstone West ILP - DWE seeks clarification that the Environmental Corridor includes both the CRZ and the VB.	C18-6	The Environmental Corridor shown in Figure 4 ILP includes both the CRZ and the VB. Refer to Figure 2 in the Post Exhibition Planning Report .

С	DEVELOPMENT CONTROL PLAN			
No.	Author	Summary	Respon	se
		3.4 Pedestrian and Cycle Network - This figure needs to be amended to locate the off road cycle way outside the CRZs and VBs (except for crossings) and where possible on the outside edge of the environmental corridor. Under Controls add: 8) the lighting of paths must be designed so as to minimise light spill into adjacent riparian corridors and disturbance of riparian habitat	C18-7	Figure 17 Pedestrian and Cycle Network of the DCP has been amended to show the cycle way outside of the riparian corridor. The additional control will be included in Section 3.4 Pedestrian and Cycle Network as requested.
		3.5 Open Space and Public Domain Works - Control 2 should be amended to read as follows: 2) The environmental corridor area must provide for the protection and rehabilitation of the riparian corridors (core riparian zone and vegetated buffers). Opportunities for pedestrian and cycleways, fitness trails and other passive recreational activities may be located within the adjacent open space areas so as to maintain the environmental significance of this area. A range of themed elements such as boardwalks, eco-pathways and educational tracks should be utilised in appropriate locations within the adjacent open space areas.	C18-8	Control 2 has been amended accordingly.
18	Department of Water and Environment (cont.)	Figure 18 needs to include the riparian corridor upstream of the road.	C18-9	Figure 18 of the DCP has been amended to include the W5 riparian corridor.
		 4.2 Cut and Fill - add the following objectives: 10) To minimise adverse impacts on floodwaters 11) To ensure that any cut and fill does not adversely affect the conservation and rehabilitation of the riparian corridors Control 10 should read: 10) Embankments batters and retaining walls are to be landscaped to reduce erosion and provide a suitable screen. They should be vegetated with a diversity of local native ground covers, shrubs and small native trees with mature height of up to 10m. 	C18-10	Objectives 10 and 11 have been added and Control 10 has been amended accordingly.
		4.3 Total Water Cycle Management - Under Controls add: Stormwater management measures must be located wholly outside the riparian corridors (both the CRZ and the vegetated buffers)	C18-11	Section 4.3 Total Water Cycle Management of the DCP has been amended to include this control.

С	DEVELOPMENT CONTROL PLAN			
No.	Author	Summary	Respon	se
		 4.6 Environmental Corridor - Under Objectives, include the following amendments: 1) to protect, restore and enhance the environmental values and functions of watercourses and riparian corridors (including the core riparian zone and vegetated buffer) within the environmental corridor in accordance with the Waterfront land Strategy 	C18-12	Objectives and controls have been amended as requested.
		2) to promote environmental protection works that have a neutral or beneficial impact on the environmental values of the Environmental Corridor		
		The third objective needs to be removed.		
		Under Controls, include the following amendment: 2 the environmental corridor must be rehabilitated and revegetated in accordance with the Waterfront land Strategy and the Vegetation Management Plan, as described in Table 4 in Section 1.7.3 of this DCP		

С	DEVELOPMENT CONTROL PLAN			
No.	Author	Summary	Respons	se
18	Department of Water and Environment	4.6.2 Riparian Corridors - Under Table 10	C18-13	Refer to Response C18-2.
	(cont.)	Under Category 1 watercourses: (b) restore and rehabilitate the CRZ and VB with local provenance vegetation (native trees, shrub and groundcover species)		
		(c) ensure vegetation in the CRZ and VB is at a density that would occur naturally		
		Under Category 2:		
		(a) provide a minimum total riparian corridor of 60 m width including 20 m core riparian zone (CRZ) from top of bank and 10m wide vegetated buffer either side of the CRZ and an additional width that equals to the width of the channel. Top of bank is to be entirely contained within the CRZ		
		(b) restore and rehabilitate the CRZ and VB with local provenance vegetation (native trees, shrub and groundcover species)		
		(c) ensure vegetation in the CRZ and VB is at a density that would occur naturally		
		Under Category 3:		
		(a) provide a minimum total riparian corridor width of 20 m, 10 m CRZ from top of bank on either side of the watercourse		
		(c) engineered drainage solutions are to be used as a last resort within CRZs and must still emulate a natural functioning watercourse with appropriate WSUD approaches to be used within sensitive areas		
		(d) restore and rehabilitate the CRZ with local provenance vegetation (native trees, shrub and groundcover species)		
		(e) ensure vegetation in the CRZ is at a density that would occur naturally		

С	DEVELOPMENT CONTROL PLAN			
No.	Author	Summary	Response	
		4.6.2 Riparian Corridors:	C18-14	Refer to Response C18-2.
		2) Infrastructure including services, on site detention and water quality treatment measures, flood mitigation measures, recreational activities including playing fields, cycle ways and walkways as well as asset protection zones for bushfire protection must be located outside provided the values of the CRZs are not compromised.		
		3) The location of access ways, such as footpaths and cycleways (except for crossings) must be located outside the CRZ and VB so as not to compromise the ecological integrity of any existing riparian vegetation, the streambed or bank stability.		
		4) Any filling of streams must be undertaken in accordance with the Riverstone West Indicative Layout Plan as shown in Figure 26 and the Waterfront Land Strategy		
		5) Existing native vegetation within core riparian zones and vegetated buffers is to be conserved, retained and rehabilitated /re-vegetated to fully structured native vegetation communities in accordance with the Waterfront Land Strategy		
		Any bank stabilisation measures must emulate a naturally functioning watercourse and are not to involve hard engineering		
18	Department of Water and Environment (cont.)	4.7 Bushfire Management:Control 2: APZs should be located wholly outside the CRZ and the VBs.Control 14: The fire trail should not compromise the CRZ or the VB	C18-15	The Riverstone West ILP has been designed so that APZs are located wholly outside the CRZ and VB. Control 14 will be amended to include "the fire trail should not compromise the CRZ or the VB".
		5.5.3 Car Parking - DWE require more information on the underground car parking at subdivision stage as they may have specific requirements associated with basements for underground car parking. Control 17: natural ground water level or natural ground level?	C18-16	Control 17 has been amended to refer to natural ground water. The control calls for approval by DECC and DWE if otherwise.
		Appendix A - Glossary - The definition of the riparian corridor should include that the riparian corridors are to be consistent with the agreed surveyed riparian corridor maps which should be included in the Waterfront Front Land Strategy.	C18-17	Agreed. Inclusion to definition will be made as requested.

С	DEVELOPMENT CONTROL PLAN					
No.	Author	Summary	Respons	Response		
19	NSW Rural Fire Services	Requirements of Planning for Bush Fire Protection (PBFP) 2006 should be considered in regards to: - Asset Protection Zones - Public access (section 4.1.3 PBFP) - Water supply for fire fighting (") - Landscaping (Appendix 5 of PFBP) - Emergency Evacuation (section 4.2.7 of PFBP)	C18-18	The relevant sections of the PBFP have been referenced in the appropriate Sections of the DCP.		
		Areas of RW precinct identified as within the bush fire prone buffer (as on the Blacktown Bush Fire Prone Land Map) will be required to comply with either section 79BA or section 91 of the EP&A Act 1979 and may require the issue of a bush fire safety authority as per section 100B of the Rural Fires Act 1997.	C18-19	Noted. An additional control in Section 4.7 of the DCP has been included accordingly.		
OTHER ORGANISATIONS						
1	North West Transport Hub	3.1.2 Street Types - Amendment to definitions to allow provision of on street parking on sub arterial roads	C1-1	This is a detail design matter for Council consideration at DA stage.		
		3.1.2 Street Types - Amendment to definitions to allow unloading and loading on Town Centre Streets	C1-2	Blacktown Council does not support loading/unloading activity on the Town Centre street.		
		5.5.1 Pedestrian Access - Amendment to Pedestrian "through site links" controls to be minimum 6m wide with no height requirements	C1-3	No change to minimum height of 3.6 metres. Height control is based on the desired built form and urban environment desired, as exemplified under the Macquarie Park DCP.		
		5.5.2 Vehicular Access - Amend Objective 1 to "To ensure that vehicles can enter and exit premises in a safe and efficient manner" and remove "in a forward direction" due to impacts of required site area.	C1-4	Council does not support the suggested wording. This control ensures that vehicles enter and exit properties in the safest manner possible.		
		5.5.3 Car Parking - Controls 13, 17 and 18 to be removed as they are considered unnecessary in the DCP	C1-5	Controls 13, 17 and 18 have been amended according to BCC requirements.		
		Figure 20 - Amendment of graphic to reflect the proposed RL level at Vineyard Station to be 33.5, with the intention for the train platform to be RL 35	C1-6	Figure 20 has been amended accordingly.		
1	North West Transport Hub (cont.)	4.3 Total Water Cycle Management (Page 73) - Removal of Control 30, as reference to BASIX is irrelevant to the precinct	C1-7	Control 30 has been amended to remove the reference to BASIX.		
		5.2.1 Setbacks - Amend Control 4 to read "No store above ground is permitted within the landscaped setback areas".	C1-8	Control 4 has been amended accordingly.		

С	DEVELOPMENT CONTROL PLAN			
No.	Author	Summary	Respon	se
		5.2.1 Setbacks - Amend Control 7) to reduce minimum front setback in the Vineyard Business Area from 7m to 5m.	C1-9	No change to Control 7. The differentiated setback is intended to provide an incentive to locate office/showrooms along the street front.
		5.2.2 Building Layout and Orientation - Remove controls 1) and 2) to reduce unnecessary costs in building construction when long facades face east or west.	C1-10	No change to controls. The intention for Control 1 is to ensure a defined streetscape in the Business Park. The intention for Control 2 is to maximise amenity and thermal comfort for building occupants.
4	Urban Taskforce	Exempt of complying development set out in the SEPP (Exempt and Complying Development Codes) 2008 should be as such in the Riverstone West precinct. It may be appropriate for some of the exempt and complying provisions to be incorporated into the precinct plan.	C4-1	The provisions stipulated under the Appendix B Exempt and Complying Development in the DCP will remain until such time as there is certainty on the status of the draft NSW Code for Exempt and Complying Development Code for Commercial Development.
GENE	RAL PUBLIC			
15	Marsden Park Scheduled Lands Committee	Provision of commuter car park at Riverstone Railway Station. Suggest land near Garfield Road West near Riverstone Station should be reserved for a construction of a multi-storey car park sufficient for the immediate and future needs.	C15-1	There may be opportunities to provide commuter car parking underneath the Civic Plaza in the Business Park. This will be indicated in Figure 47: Riverstone West Business Park concept plan as a potential use.
IL18	K Murray	Concerns for additional noise and air pollution due to increased industrial activity in the vicinity of the Riverstone Precinct.	CIL18-1	The DCP addresses this matter by requiring a Noise and Vibration Impact Assessment as well as an Air and Odour Report at DA stage.

A3. ILP ISSUES

NI.	INDICATIVE LAYOUT PLAN	0	D	
No.	Author	Summary	Respon	1SE
GOVE	ERNMENT AGENCIES			
6	Ministry of Transport	Connectivity to rest of NW Growth Centres	D6-1	DoP are working together with MoT to ensure connectivity through bus routes, cycling and walking routes.
13	Sydney West Area Health Service	Privately owned space and sporting facilities should be made fully accessible to the working population and local residents, including in terms of their fee structure.	D13-1	The DCP provides pedestrian access points from the Business Park and the Vineyard Business Area to private open space along Eastern Creek. Links between the Business Park and private open space through potential Community Title Schemes will enable the revegetation and ongoing management of private open space.
14	Roads and Traffic Authority (RTA)	Possibility for part of the Spine Road to be used as an arterial road depending on the location of the Riverstone Railway overpass. Design speed of 80km/hour would be preferred.	D14-1	The Spine Road has been designed to accommodate an 80km/hr speed although the ILP and DCP controls point to a more appropriate lower speed limit in the vicinity of the business park. The detailed design and sign-posting of the Spine Road will be determined by RTA and Council at DA stage.
		Off-road shared cycle path and 2m shoulder which could double as on-road cycle lane if required.	D14-2	Off-road cycle paths are preferred given the heavy vehicle traffic and high speed at which vehicles will be travelling (Spine Road will be 80km/hr).
		RTA would prefer Spine Road to be designed as 4 lane divided road with provision for 6 lanes in the future in its southern half. Road and intersections will need to be designed to accommodate B-doubles.	D14-3	Refer to Response D14-1
		Further information required which clearly demonstrates and explains how each intersection would meet appropriate traffic signal warrant requirements, as well as further traffic modelling and conceptual layout of the intersection.	D14-4	Detail design matter. This information could be addressed in the Transport Management and Accessibility Plan (TMAP). Refer to Issue and Response C14-13.
		Any proposed roundabouts need to be designed with bus movements in mind. Lane width for a bus land should be 3.5m wide with an absolute minimum of 3.2m. Should the kerb land be designed to be a shared bus/cycle lane, the width should be increased to 4.5m.	D14-5	As above.
		Bus only "early start" lanes at intersections are effective and can be provided in conjunction with dedicated left turn lanes.	D14-6	As above.
		Premiers Council for Active Living (PCAL) – "Designing Places for Active Living". Key considerations that should be taken into account in the preparation of any new draft plans can be found on its website http://www.pcal.nsw.gov.au/planning_design_guidelines/.	D14-7	Considered; the ILP responds to the key considerations.

D	INDICATIVE LAYOUT PLAN			
No.	Author	Summary	Respon	se
8	NSW Business Chamber and Sydney Chamber of Commerce	General support for the precinct, no specific issues identified.	D8-1	Noted.
GENE	RAL PUBLIC			
15	Marsden Park Scheduled Lands Committee	Inclusion of scheduled lands in Marsden Park North precinct as part of the Riverstone West development or a part precinct release of Stage 1 of the Marsden Park North Precinct. This would have allowed both sides of Eastern Creek to be rehabilitated from Garfield Road West to Bandon Road.	D15-1	The boundaries of the precinct have not been altered. Opportunities for the rehabilitation of the western side of Eastern Creek will be considered as part of the detailed precinct planning when the Marsden Park North precinct is released.
IL3	Mario Pace	Query regarding the size and location of a heavy rail commuter car park and bus interchange for Riverstone. Also queries the location of the Riverstone Overpass.	DIL3-1	These are detail design matters that will be resolved at DA stage. The Riverstone West Business Park concept plan has been amended to show the potential for a commuter car park located underneath the proposed Civic Plaza.
				The RTA is in the process of considering options for the Riverstone Overpass.
IL8	Maureen Harper	Concerns regarding IMT movements and noise impact on residents.	DIL8-1	The DCP has been amended to include Section 4.6 Intermodal Terminal (IMT), which specifically deals with the proposed IMT. The DCP requires an Environmental Assessment which must address the impacts on noise, particularly during the operating hours of 12am-5am for neighbouring residents.
IL14	Nicole Peterson	Requests provision of connections from Marsden Park North Precinct to the sub-precincts in Riverstone West.	DIL14-1	The Riverstone West ILP has been amended to show the existing concrete bridge connection over Eastern Creek. Opportunities to provide additional connections from Riverstone West to Marsden Park North Precinct will be considered as part of the detailed precinct planning when Marsden Park North precinct is released.
IL20	Tony and Dimitra Kougellis	General support for the precinct, no specific issues identified. Acknowledges that the Business Park will be beneficial to the community.	DIL20	Noted.

A4. VOLUNTARY PLANNING AGREEMENT ISSUES

E	VOLUTARY PLANNING AGREEMENT			
No.	Author	Summary	Respon	se
14	Roads and Traffic Authority (RTA)	New developments along Garfield Road West will also need to be designed to have access from rear/side streets or service lanes and incorporate sufficient setback to allow for road expansion, public transport and noise treatments.	E14-1	This is provided for in the Riverstone West ILP. For developments south of Garfield Road West, this is a matter for the future precinct planning of West Schofields.
		Developer to fully fund and construct any new signalised intersection in accordance with RTA's requirements. Where the RTA agrees to the provision of new traffic signals, then the design must include/consider bus priority measures (where applicable).	E14-2	The DCP identifies an indicative road and intersection layout, which in general terms has been agreed with the RTA. The detailed location, number and treatment of intersections will be determined by Council and RTA as appropriate at DA stage.
		The following changes should be made to the draft Planning Agreement:		The draft VPA provisions will be reviewed by Council and the developer.
		Clause 11.1.2 should be amended to read "Any design or specification or approved by the Council and/or the RTA to the extent that it is not inconsistent with the document referred to in clause 11.1.1"		
		After Clause 11.1.4, the following sentence should be read as "and is to be otherwise to the satisfaction of the Council and/or the RTA"		
		Clause 11.2 should be amended to read "If the Developer is required by the Council or the RTA to prepare or modify a design or specification relating to a Work for approval by the Council or the RTA under clause 11.1, the Developer is to bear all costs relating to the preparation or modification and approval of the design and specification."		
		Schedule 2 (Development Contributions) Column 1, Item 1 should be amended to read "Construction of internal road network (including main Spine Road) on the Land, including construction of intersections, roundabouts, traffic signals, pedestrian/cyclist facilities (including crossing facilities), bus stops (including adequate shelter and seating) and slope batters"		
		Column 4, Item 1 should be amended to "In stages in conjunction with the carrying out of Stages of Development and in accordance with the staging requirements specified with the draft TMAP"		

A5. KEY ISSUES

F	FLOOD AND FILL			
No.	Author	Summary	Respor	nse
GOV	ERNMENT AGENCIES			
3	Department of Environment and Climate Change	Concerns regarding Worley Parsons flood modelling tolerance, inconsistencies between the Precinct Planning Report and the DCP, and confirmation that critical impacts are in fact from the 100 year ARI/low tailwater event.	F3-1	A review of all the stormwater reports and documents was undertaken by GHD in July 2009. Although the review indicates that there are some inconsistencies in the reports and flood studies, it recommends that additional Flood and Water Management studies be required under the SEPP Amendment and the DCP to ensure zero flood impacts are achieved for all flood catchments, independent of the tolerances, In particular the review recommends: 1) A precinct-wide Floodplain Management Plan in accordance with the requirements of the NSW Floodplain Development Manual 2005. This should include updated Flood Studies for all catchments affecting the site and present a Flood Emergency Response Plan; and 2) Two Water Management Reports (WMR). The first must address precinct scale and the second must address the lot scale. These reports must include: • site/lot water cycle assessment; • water quality management assessment • flood assessment • stormwater concept drainage assessment/plan • maintenance plans for infrastructure • erosion and sediment control plans The WMRs must demonstrate compliance with the precinct-wide FMP where relevant.
		DECC is not convinced that the proposal has zero adverse impacts. Consider assessing and addressing cumulative impacts from other future development.	F3-2	Refer to Response F3-1
5	RailCorp	Concern that filling will result in rail corridor becoming an artificial channel which may impact on the rail operations and the condition of the track in the event of heavy rain or flood.	F5-1	Additional studies addressed in F3-1 will ensure that the rail corridor will not become an artificial channel.

F	FLOOD AND FILL			
No.	Author	Summary	Respon	nse
9	Hawkesbury City Council	Flood modelling does not seem to consider flooding impacts in the vicinity up and down stream of the development site. Such issues require appropriate consideration and potential problems and actions should be included in the planning of any development.	F9-1	The flood modelling prepared by Worley Parsons demonstrated that there would be no impacts upstream and downstream of Eastern Creek. It was agreed that the information provided was sufficient to allow the rezoning of the land. Additional flooding and water management studies will be required in the DCP for a Precinct Wide and Site DA stage. Refer also to Response F7-2
14	Roads and Traffic Authority (RTA)	Proposed cut and fill should not impact the structural integrity of the existing concrete vehicle bridge crossing over Eastern Creek unless the existing bridge is being replaced. In addition, the proposed cut earth should not impact on the pedestrian and bicycle network for Marsden Park (North) Precinct.	F14-1	The existing concrete bridge crossing over Eastern Creek is to be retained. A control has been included in Section 4.2.1 to ensure proposed cut and fill activities do not impact on the bridge.
OTHE	R ORGANISATIONS			
11	National Trust	Opposed to removal of heritage cottages and filling of the floodplain.	F11-1	Noted.
GENE	RAL PUBLIC			
7	Riverstone & District Historical Society	Would like topographical and architectural modelling to explain proposed changes to the floodplain	F7-1	A digital 3D model of the proposed development has been prepared by Jackson Teece. Refer to Figures 4,5,6 and 7 of the Post Exhibition Planning Report.
		Offsite flooding impacts east of the railway line, namely Riverstone Parade, Church and King Streets, have not been considered. RDHS believe residents in those locations will be adversely impacted.	F7-2	An XP-Storm model prepared by J Wyndham Prince was used to address impacts for local catchments east of the rail line. This model was provided to Council in April 2009 and reviewed by Council independent reviewer and GHD on behalf of the Department of Planning.
				It was agreed that the information provided was sufficient to allow the rezoning of the land. Additional flooding and water management studies will be required in the DCP for a Precinct Wide and Site DA stage.
15	Marsden Park Scheduled Lands Committee	Request a site visit with markers showing location and height of fill and depth of cut in order to comprehend the impact of proposed cut and fill.	F15-1	Refer to Response E7-1 .
		Additional flood storage or improvements should be provided to compensate the additional affects as a result of climate change.	F15-2	Potential affects of climate change have been considered. The DCP requires a freeboard of RL 17.9 metres to address potential impact of climate change on flooding.
				The freeboard level will be reviewed as information on impacts on Climate Changes is updated and information from local flooding east of the rail line is taken into consideration,

F	FLOOD AND FILL			
No.	Author	Summary	Respon	se
		Developer to redesign the development to ensure there is no impact on houses and land in the MPNSL or compensate these landowners who are impacted by this development.	F15-3	Refer to Response F9-1
		MPSL supports the development and utilisation of flood liable land so long as there is no additional impact on neighbouring properties and that MPSL are able to carry out similar development with its flood liable land area.	F15-4	As addressed in F9-1, there will be no impacts of the Marsden Park Schedule lands. Provisions for the filling of flood liable land in Riverstone West was supported by DoP to ensure that high order employment is generated in the vicinity of Riverstone Station. The joint venture had sufficient land west of Eastern Creek to ensure a
				balanced cut and fill.
15	Marsden Park Scheduled Lands Committee (cont.)	Concern for lack of onsite water detention basins.	F15-5	The report by J Wyndham Prince indicates that there are different alternatives to manage on-site water detention.
				The DCP requires a Water Management Report at a precinct wide and site level to ensure that appropriate water management measures are taken into consideration.
		Need to establish that proposed development has a zero flood impact from the tributaries east of the site. Disruption to the streams within Lot 11 needs to be assessed.	F15-6	Refer to Response F7-2 .
		Disruption to the streams within Lot 11 needs to be addressed.	F15-7	The steams located in Lot 11 were not assessed as part of the Precinct Plan as they were outside the Precinct Boundary.
				Any impacts of the streams on Lot 11 will be assessed at DA stage.
21	Riverstone and District Environment Group	Concerned that altered flood flows may very well adversely affect extant riparian vegetation and altering flows presents an unknown level of threat to the riparian vegetation and the fauna which inhabit these areas.	F21-1	The assessment of riparian corridors undertaken by Travers Environmental concluded that the riparian vegetation along Eastern Creek has been highly degraded and mostly absent as a result of agricultural pressures. The Riverstone West precinct plan provides the opportunity to rehabilitate and revegetate 57.6 hectares of land along Eastern Creek (identified in the ILP as 'Environmental Corridor') including the Category 1 Eastern Creek riparian corridor and the four riparian corridor tributaries. 18.3 hectares of land will be revegetated beyond DWE's requirements.
22	Western Sydney Conservation Alliance (WSCA)	Concerned that altered flood flows may very well adversely affect extant riparian vegetation and altering flows presents an unknown level of threat to the riparian vegetation and the fauna which inhabit these areas.	F22-1	Refer to response F21-1 .
IL1	John Hood	Concerns for flooding and stormwater impacts as a result of proposed fill activities.	F IL1-1	Refer to Responses F3-1 and F7-2

F	FLOOD AND FILL		
No.	Author	Summary	Response
IL2	Russell Delarue	Concerns for flooding and stormwater impacts as a result of proposed fill activities.	F IL2-1 Refer to Responses F3-1 and F7-2
IL9	David A. Martignago	Concerns for flooding and stormwater impacts as a result of proposed fill activities.	FIL9-1 Refer to Responses F3-1 and F7-2
IL10	Lloyd Williams	Concerns for flooding and stormwater impacts as a result of proposed fill activities.	FIL10-1 Refer to Responses F3-1 and F7-2
IL12	J. Manning	Concerns for flooding and stormwater impacts as a result of proposed fill activities.	FIL12-1 Refer to Responses F3-1 and F7-2
IL14	Nicole Peterson	Concerns for flooding and stormwater impacts as a result of proposed fill activities.	FIL14-1 Refer to Responses F3-1 and F7-2
IL15	Joanne Homan	Concerns for flooding and stormwater impacts as a result of proposed fill activities.	FIL15-1 Refer to Responses F3-1 and F7-2
IL16	Greg Parkes	Concerns for flooding and stormwater impacts on Marsden Park North as a result of proposed fill activities.	FIL16-1 Refer to Responses F3-1 and F7-2
IL18	K Murray	Concerns for flooding and stormwater impacts as a result of proposed fill activities.	FIL18-1 Refer to Responses F3-1 and F7-2
IL19	Auke Roelink & Sally Walker	Major concerns for flooding and stormwater impacts on Marsden Park North as a result of proposed fill activities.	FIL19-1 Refer to Responses F3-1 and F7-2

G	INFRASTRUCTURE		·	
No.	Author	Summary	Respo	nse
GOVERNMENT AGENCIES				
2	Sydney Water Corporation	Relocation of existing sewer carriers and rising mains as a result of the proposed cut and fill works.	G2-1	This matter cannot be addressed in the DCP or the SEPP. It is for Sydney Water and the Developer to discuss.
5	RailCorp	Request that level crossings at Garfield Road West, the Meatworks and Bandon Road are closed prior to commencement of any development.	G5-1	Impractical as closure would deny access to existing uses and for construction purposed. DoP has been liaising closely with BCC and relevant transport agencies to ensure future land uses are coordinated and integrated with adequate and safe transport.

G	INFRASTRUCTURE			
No.	Author	Summary	Respon	nse
		Further assessment is required for intermodal facility. There seem to be major constraints relating to the availability of train paths for freight movements, particularly in the context of the already congested Western Line.	G5-2	Detailed assessment of the proposed Intermodal facility will be dealt at the DA stage with an Environmental Assessment to be prepared at the cost of the developer. RailCorp licensing requirements should also be addressed.
6	Ministry of Transport	Unsupportive of the proposed IMT, as MoT believe IMT at Riverstone West is in conflict with other terminals proposed in the region.	G6-1	The proposed IMT has the potential to be operational before other proposed terminals (Eastern Creek, Moorebank and Enfield) are developed. Detail assessment of Intermodal facility will be dealt at DA Stage
		Environmental Assessment of the Quakers Hill to Vineyard rail duplication addresses passenger train usage only. The supporting rail infrastructure is not designed to cope with freight rail. Should the IMT be developed, necessary upgrading and a new EA will be required. New EA at the cost of the developer.	G6-2	Refer to Response G5-2 .
		Noise related issues of IMT operating between 12am-5am for neighbouring residents.	G6-3	Refer to Response G5-2 .
		Request that level crossings at Garfield Road West, the Meatworks and Bandon Road are closed prior to commencement of any development.	G6-4	Refer to Response G5-1 .
12	Integral Energy	Vineyard to Rouse Hill Electricity Upgrade – consideration of under grounding of the transmission line	G12-1	Zoning and permissible uses are unaffected by this issue.
		The existing 33kV crossing football field will be replaced with two new 132kV lines from TransGrid's Vineyard substation when the planned new Riverstone Zone Substation is established. In this event, there will need to be some consideration of the release of the 33kV easement.	G12-2	Noted.
13	Sydney West Area Health Service	Provision of community development staff and community development funding to accompany the proposed community facilities planned for adjoining precincts that is proposed that employees working in Riverstone West will access.	G13-1	Noted.
24	NSW Treasury	The proposed land uses for Riverstone West differs to what was originally proposed for this area. However DoP have advised NSW Treasury that capital expenditure requirements are not expected to significantly change for that area.	G24-1	DoP will continue to liaise with the NSW Treasury and appropriate agencies regarding approval and funding of infrastructure projects outlined in the Precinct Plan.
OTHE	ER ORGANISATIONS		,	
10	Busways	Provision of pedestrian overbridge at Riverstone and Vineyard Stations is of priority.	G10-1	This is addressed in the ILP and DCP.

G	INFRASTRUCTURE			
No.	Author	Summary	Respon	nse
		Criteria for providing a multi-purpose route (provision of cross sectional access to number of regional patronage attractors while serving a range of passenger types as well as incidental journeys for local residents) cannot easily be met in the precinct whilst maintaining a clean, clear and free-flowing bus route.	I10-1	Bus routes connecting to attractors other than the employment lands at Riverstone West, such as Riverstone and Vineyard town centres, are constrained by railway line. Range of passenger types will increase with the future development of surrounding future precincts.
GENE	RAL PUBLIC			
15	Marsden Park Scheduled Lands Committee	Maintain existing concrete bridge over Eastern Creek just north of the scheduled land in the Marsden Park North Precinct to provide vehicle or bike and pedestrian crossing in to the Riverstone West Business Park and providing access to the cycleway and open space.	G15-1	Figure 17 Pedestrian and Cycle Network has been amended to integrate the bridge crossing with the proposed pedestrian and cycle network.
		Access to additional potable water and reticulation sewerage for the scheduled lands in the Marsden Park North Precinct. Request that adequate easements are provided within the Riverstone West development to allow connection to additional potable water if required and connection to the existing Riverstone Schofield Trunk sewer main possibly at Garfield Road West and/or East street.	G15-2	Planning will proceed in accordance with Sydney Water strategies.
		Concerns over traffic management at Riverstone Parade/Garfield Road intersection as well as traffic impact on residents	G15-3	The DCP requires a Traffic Impact Report to be lodged with all DAs. The report must address the traffic impacts of the proposal on the local road network within the precinct and assessing the adequacy of onsite parking. Refer to Section 1.7.3 Lodgement Requirements, Table 4 of the DCP.
		Request for the acceleration of the Richmond Road and Garfield Road West upgrades, especially the existing traffic lights on the corner of Richmond Road and Garfield Road West, as a result of the Riverstone West and Riverstone developments.	G15-4	The Department continues to work closely with the RTA and Council to identify and plan for the staged delivery of the regional road infrastructure required to service development in the Growth Centres.
IL8	Maureen Harper	Query on the Garfield Road West upgrade and the status of the existing bridge at Eastern Creek.	GIL8-1	The Garfield Road West/Riverstone Overpass is being considered by the RTA at this point in time.
				The ILP has been amended to show the existing concrete bridge over Eastern Creek.
		Queries the affect road widening will have on the bushland reserve.	GIL8-2	The Garfield Road West/Riverstone Overpass is being considered by the RTA at this point in time. Impacts of the future road works are to be addressed at a future stage by the relevant authority.
IL11	Emil Teleki	Concern for provision of aquatic facilities in Riverstone West Industrial Precinct.	GIL11- 1	The aquatic facilities proposed in Riverstone West Industrial Precinct will be part of the proposed Football NSW Sporting Complex. The provision of an indoor swimming pool is considered to be an ancillary function to the football uses.

G	INFRASTRUCTURE		·	
No.	Author	Summary	Respon	ISE
IL13- 1	Peter Harland	Concerns for traffic as a result of new development and lack of major infrastructure.	GIL13- 1	Precinct planning for Riverstone West has been undertaken in the context of the State Government's commitment to provide key infrastructure. The proposed Spine Road will provide an additional sub-arterial route for heavy vehicles with the potential to reduce up to 50% of the traffic on Garfield Road in Riverstone Town Centre. To ensure that unacceptable traffic impacts will not occur as a result of new development, the DCP requires a Traffic Impact Report and a Traffic Management and Assessment Plan (TMAP).

Н	HERITAGE			
No.	Author	Summary	Respo	nse
GOVI	ERNMENT AGENCIES			
13	Sydney West Area Health Service	SWHAS strongly recommends existing heritage cottages to be retained.	H13-1	The existing local heritage significance status of cottage No 17 and the Meatworks Group of cottages under Blacktown Local Environmental Plan 1988 will be retained. For consistency of approach, the listing of the former Butcher's Shop on Garfield Road which had been identified on the SEPP Heritage items map will also be retained under Blacktown City Council's LEP.
				The ILP has been amended to show the cottages, with the exception of No. 7, in their current position and the DCP has been amended to include appropriate controls for their conservation, including a concept plan for the area. Refer to Figure 3 in the Post Exhibition Planning Report.
17	Blacktown City Council	Council strongly objects to the proposed demolition of the 14 local heritage listed cottages.	H13-5	As above.
OTHE	ER ORGANISATIONS			
11	National Trust	Removal of heritage houses is contrary to Growth Centres SEPP.	H11-1	The SEPP retains Blacktown LEP 1988's local heritage significance listing of most of the cottages. As exhibited, Council consent is required for their demolition. The future of the cottages in relationship to the business park is to be determined following further technical, urban design, feasibility and stormwater management investigation by Council and the developers.
GENE	ERAL PUBLIC			
7	Riverstone & District Historical Society	Cottages must not be demolished. Riverstone is a heritage town with largest number of heritage listed items in Blacktown LEP.	H7-1	Refer to Response H13-1.

		Maintenance costs of heritage cottages should be covered by developers and form part of consent criteria.	H7-2	VPA issue.
16	Riverstone Residents' Association	Opposition to the business park if at the expense to the historic value of the town.	H13-4	Refer to Response H13-1.
IL4	Shelly Gale	Strongly opposes the demolition or movement of the Riverstone Meatworks group of cottages. Petition has been attached containing 318 signatories.	HIL4-1	As above.
IL6	Christine Linder	Opposes the demolition or movement of the Riverstone Meatworks group of cottages.	HIL6-1	As above.
IL7	Cindy Reedy	Concern for lack of information provided to current tenants of the Riverstone Meatworks group of cottages.	HIL7-1	Noted.
IL8	Maureen Harper	Opposes the demolition or movement of the Riverstone Meatworks group of cottages.	HIL8-1	Refer to Response H13-1.
IL13	Peter Harland	Opposes the demolition or movement of the Riverstone Meatworks group of cottages.	HIL13- 1	As above.
IL15	Joanne Homan	Opposes the demolition or movement of the Riverstone Meatworks group of cottages.	HIL15	As above.
IL17	Dibagh Singh	Strongly opposes the demolition or movement of the Riverstone Meatworks group of cottages. Petition has been attached containing 348 signatories.		As above.

ı	URBAN CAPABILITY			
No.	Author	Summary	Respo	onse
GOVE	ERNMENT AGENCIES			
3	Department of Environment and Climate Change	Concerns over lack of salinity assessment and lack of direction provided for management of salinity, particularly due to extent of proposed landform modification.	I3-1	Refer to Response C3-3.
GENE	RAL PUBLIC			
16	Riverstone Residents' Association	Concerns for buried asbestos waste in the vicinity of Meatworks site	I3-16	The DCP requires a precinct-wide Contamination Management Plan (CMP) to be prepared and adopted by Council prior to the DA process commencing. Refer to Section 1.7.3 Lodgement Requirements, Table 3 of the DCP.

Riverstone	West	Precinct	Post	Exhibition	Report
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APPENDIX 2: RESULTS OF ADDITIONAL FLOOD MODELLING



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Elizabeth Coker
Project Manager – Riverstone West Precinct
Department of Planning
PO Box 1457
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20th July 2009

Dear Elizabeth,

PROPOSED REDEVELOPMENT OF RIVERSTONE WEST PRECINCT RESULTS OF FLOOD MODELLING FOR INDICATIVE LAYOUT PLAN

I refer to the detailed flood modelling that was previously undertaken as part of investigations for the proposed redevelopment of the Riverstone West Precinct.

As you are aware, WorleyParsons prepared a Flood Impact Assessment Report in December 2008 which documented the results of flood modelling that had been undertaken to determine the potential impact of filling associated with the Precinct development on local flood characteristics. The report was titled *'Proposed Redevelopment of Riverstone West Precinct - Flood Impact Assessment'* (Issue No.4, December 2008).

The investigations documented in the Flood Impact Assessment Report established that the proposed development, as configured in September 2008, would not have any adverse impacts on the characteristics of flooding along Eastern Creek. It was demonstrated through detailed flood modelling that the proposed development would not cause any off-site increases in peak flood levels or peak flow velocities for three flood scenarios involving a combination of local catchment flow and backwater flooding from the Hawkesbury Nepean River system.

Since preparation of the December 2008 report an Indicative Layout Plan (*ILP*) has been developed for the precinct. We understand that the ILP has been developed for inclusion within the Development Control Plan (*DCP*) for the Precinct.

Comparison of the ILP with the previously modelled development footprint indicates that the layout and extent of proposed cut and fill across the precinct has undergone some minor modifications as part of the ILP development process. It is understood that these changes are the result of additional design considerations, such as the curvature of the proposed "spine road" with respect to maximum speed limits.

Based on a preliminary review of the differences in the development layout, it was determined that the changes would not manifest as a measurable change to the flood impacts that were determined previously and which are documented in the December 2008 Report. A note to this effect was incorporated within Section 5 of the Flood Impact Assessment Report (*refer page 18 of Issue No 4*).

Notwithstanding, the Northwest Transport Hub has since requested that we undertake additional flood modelling to confirm that construction of the proposed development in accordance with the Indicative Layout Plan would not result in any off-site impacts on flooding.

1

Accordingly, we have modified the "post-development" surface in our flood model to reflect the proposed development as represented by Revision 12 of the Indicative Layout Plan.

The extent of cut and fill that is proposed and which has been incorporated into the model network is shown in **Figures 1**, **2** and **3**. The hatched areas on the figures indicate areas where the cut and fill will be greater than 2 metres. Areas shown with white shading represent areas of the Precinct where the cut and fill will be between zero and 0.2 metres; that is where there will be minimal change to the existing surface.

The modified flood model has been used to simulate the same three flood scenarios that were documented in the December 2008 Report. These are:

 Scenario 1 - Flooding in the Eastern Creek catchment due to 100 year recurrence catchment rainfall occurring concurrently with 100 year recurrence flooding in the Hawkesbury River.

This flood is referred to as the "maximum design 100 year recurrence flood".

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This flood is referred to as the "design 100 year recurrence flood with a 5 year recurrence tailwater level".

 Scenario 3 - Flooding in the Eastern Creek catchment based on 100 year recurrence catchment rainfall occurring <u>without</u> any tailwater effects from the Hawkesbury River.

This flood is referred to as the "design 100 year recurrence local catchment flood".

The results of the revised post-development simulations have been compared to the results from simulations for existing conditions to prepare *difference mapping* that shows any predicted changes in flood levels and flow velocities. A summary of the model results is provided in the following.

SUMMARY OF ADDITIONAL FLOOD MODELLING RESULTS

1. Flood Scenario 1 – Maximum Design 100 Year Recurrence Flood

Impact on Peak Flood Level

Flood level difference mapping was generated to assess any change in peak flood levels due to the proposed cut and fill associated with the ILP. A flood level difference map provides a graphical representation of the magnitude and location of predicted changes in flood level by comparing water levels generated at each node in the hydraulic model from simulations for pre and post-development scenarios. This effectively creates a contour map of predicted post-development "affluxes" and allows easy determination of the impact of the proposed development on peak flood levels.

The flood level difference mapping established that the proposed cut and fill scenario will not alter peak <u>maximum design</u> 100 year recurrence flood levels at any location across the floodplain of Eastern Creek. Please note that no flood level difference figure has been prepared because there is no measurable impact to show.

G	INFRASTRUCTURE			
No.	Author	Summary	Respon	ise
		Further assessment is required for intermodal facility. There seem to be major constraints relating to the availability of train paths for freight movements, particularly in the context of the already congested Western Line.	G5-2	Detailed assessment of the proposed Intermodal facility will be dealt at the DA stage with an Environmental Assessment to be prepared at the cost of the developer. RailCorp licensing requirements should also be addressed.
6	Ministry of Transport	Unsupportive of the proposed IMT, as MoT believe IMT at Riverstone West is in conflict with other terminals proposed in the region.	G6-1	The proposed IMT has the potential to be operational before other proposed terminals (Eastern Creek, Moorebank and Enfield) are developed. Detail assessment of Intermodal facility will be dealt at DA Stage
		Environmental Assessment of the Quakers Hill to Vineyard rail duplication addresses passenger train usage only. The supporting rail infrastructure is not designed to cope with freight rail. Should the IMT be developed, necessary upgrading and a new EA will be required. New EA at the cost of the developer.	G6-2	Refer to Response G5-2 .
		Noise related issues of IMT operating between 12am-5am for neighbouring residents.	G6-3	Refer to Response G5-2 .
		Request that level crossings at Garfield Road West, the Meatworks and Bandon Road are closed prior to commencement of any development.	G6-4	Refer to Response G5-1 .
12	Integral Energy	Vineyard to Rouse Hill Electricity Upgrade – consideration of under grounding of the transmission line	G12-1	Zoning and permissible uses are unaffected by this issue.
		The existing 33kV crossing football field will be replaced with two new 132kV lines from TransGrid's Vineyard substation when the planned new Riverstone Zone Substation is established. In this event, there will need to be some consideration of the release of the 33kV easement.	G12-2	Noted.
13	Sydney West Area Health Service	Provision of community development staff and community development funding to accompany the proposed community facilities planned for adjoining precincts that is proposed that employees working in Riverstone West will access.	G13-1	Noted.
24	NSW Treasury	The proposed land uses for Riverstone West differs to what was originally proposed for this area. However DoP have advised NSW Treasury that capital expenditure requirements are not expected to significantly change for that area.	G24-1	DoP will continue to liaise with the NSW Treasury and appropriate agencies regarding approval and funding of infrastructure projects outlined in the Precinct Plan.
OTHE	ER ORGANISATIONS			
10	Busways	Provision of pedestrian overbridge at Riverstone and Vineyard Stations is of priority.	G10-1	This is addressed in the ILP and DCP.

G	INFRASTRUCTURE			
No.	Author	Summary	Respon	nse
		Criteria for providing a multi-purpose route (provision of cross sectional access to number of regional patronage attractors while serving a range of passenger types as well as incidental journeys for local residents) cannot easily be met in the precinct whilst maintaining a clean, clear and free-flowing bus route.	I10-1	Bus routes connecting to attractors other than the employment lands at Riverstone West, such as Riverstone and Vineyard town centres, are constrained by railway line. Range of passenger types will increase with the future development of surrounding future precincts.
GENE	RAL PUBLIC			
15	Marsden Park Scheduled Lands Committee	Maintain existing concrete bridge over Eastern Creek just north of the scheduled land in the Marsden Park North Precinct to provide vehicle or bike and pedestrian crossing in to the Riverstone West Business Park and providing access to the cycleway and open space.	G15-1	Figure 17 Pedestrian and Cycle Network has been amended to integrate the bridge crossing with the proposed pedestrian and cycle network.
		Access to additional potable water and reticulation sewerage for the scheduled lands in the Marsden Park North Precinct. Request that adequate easements are provided within the Riverstone West development to allow connection to additional potable water if required and connection to the existing Riverstone Schofield Trunk sewer main possibly at Garfield Road West and/or East street.	G15-2	Planning will proceed in accordance with Sydney Water strategies.
		Concerns over traffic management at Riverstone Parade/Garfield Road intersection as well as traffic impact on residents	G15-3	The DCP requires a Traffic Impact Report to be lodged with all DAs. The report must address the traffic impacts of the proposal on the local road network within the precinct and assessing the adequacy of onsite parking. Refer to Section 1.7.3 Lodgement Requirements, Table 4 of the DCP.
		Request for the acceleration of the Richmond Road and Garfield Road West upgrades, especially the existing traffic lights on the corner of Richmond Road and Garfield Road West, as a result of the Riverstone West and Riverstone developments.	G15-4	The Department continues to work closely with the RTA and Council to identify and plan for the staged delivery of the regional road infrastructure required to service development in the Growth Centres.
IL8	Maureen Harper	Query on the Garfield Road West upgrade and the status of the existing bridge at Eastern Creek.	GIL8-1	The Garfield Road West/Riverstone Overpass is being considered by the RTA at this point in time.
				The ILP has been amended to show the existing concrete bridge over Eastern Creek.
		Queries the affect road widening will have on the bushland reserve.	GIL8-2	The Garfield Road West/Riverstone Overpass is being considered by the RTA at this point in time. Impacts of the future road works are to be addressed at a future stage by the relevant authority.
IL11	Emil Teleki	Concern for provision of aquatic facilities in Riverstone West Industrial Precinct.	GIL11- 1	The aquatic facilities proposed in Riverstone West Industrial Precinct will be part of the proposed Football NSW Sporting Complex. The provision of an indoor swimming pool is considered to be an ancillary function to the football uses.

G	INFRASTRUCTURE			
No.	Author	Summary	Respon	ise
IL13- 1	Peter Harland	Concerns for traffic as a result of new development and lack of major infrastructure.	GIL13- 1	Precinct planning for Riverstone West has been undertaken in the context of the State Government's commitment to provide key infrastructure. The proposed Spine Road will provide an additional sub-arterial route for heavy vehicles with the potential to reduce up to 50% of the traffic on Garfield Road in Riverstone Town Centre. To ensure that unacceptable traffic impacts will not occur as a result of new development, the DCP requires a Traffic Impact Report and a Traffic Management and Assessment Plan (TMAP).

Н	HERITAGE			
No.	Author	Summary	Respo	nse
GOVI	ERNMENT AGENCIES			
13	Sydney West Area Health Service	SWHAS strongly recommends existing heritage cottages to be retained.	H13-1	The existing local heritage significance status of cottage No 17 and the Meatworks Group of cottages under Blacktown Local Environmental Plan 1988 will be retained. For consistency of approach, the listing of the former Butcher's Shop on Garfield Road which had been identified on the SEPP Heritage items map will also be retained under Blacktown City Council's LEP.
				The ILP has been amended to show the cottages, with the exception of No. 7, in their current position and the DCP has been amended to include appropriate controls for their conservation, including a concept plan for the area. Refer to Figure 3 in the Post Exhibition Planning Report.
17	Blacktown City Council	Council strongly objects to the proposed demolition of the 14 local heritage listed cottages.	H13-5	As above.
OTHE	ER ORGANISATIONS			
11	National Trust	Removal of heritage houses is contrary to Growth Centres SEPP.	H11-1	The SEPP retains Blacktown LEP 1988's local heritage significance listing of most of the cottages. As exhibited, Council consent is required for their demolition. The future of the cottages in relationship to the business park is to be determined following further technical, urban design, feasibility and stormwater management investigation by Council and the developers.
GEN	ERAL PUBLIC			
7	Riverstone & District Historical Society	Cottages must not be demolished. Riverstone is a heritage town with largest number of heritage listed items in Blacktown LEP.	H7-1	Refer to Response H13-1.

		Maintenance costs of heritage cottages should be covered by developers and form part of consent criteria.	H7-2	VPA issue.
16	Riverstone Residents' Association	Opposition to the business park if at the expense to the historic value of the town.	H13-4	Refer to Response H13-1.
IL4	Shelly Gale	Strongly opposes the demolition or movement of the Riverstone Meatworks group of cottages. Petition has been attached containing 318 signatories.	HIL4-1	As above.
IL6	Christine Linder	Opposes the demolition or movement of the Riverstone Meatworks group of cottages.	HIL6-1	As above.
IL7	Cindy Reedy	Concern for lack of information provided to current tenants of the Riverstone Meatworks group of cottages.	HIL7-1	Noted.
IL8	Maureen Harper	Opposes the demolition or movement of the Riverstone Meatworks group of cottages.	HIL8-1	Refer to Response H13-1.
IL13	Peter Harland	Opposes the demolition or movement of the Riverstone Meatworks group of cottages.	HIL13- 1	As above.
IL15	Joanne Homan	Opposes the demolition or movement of the Riverstone Meatworks group of cottages.	HIL15	As above.
IL17	Dibagh Singh	Strongly opposes the demolition or movement of the Riverstone Meatworks group of cottages. Petition has been attached containing 348 signatories.	HIL17- 1	As above.

1	URBAN CAPABILITY			
No.	Author	Summary	Respo	onse
GOVE	ERNMENT AGENCIES			
3	Department of Environment and Climate Change	Concerns over lack of salinity assessment and lack of direction provided for management of salinity, particularly due to extent of proposed landform modification.	l3-1	Refer to Response C3-3.
GENE	ERAL PUBLIC			
16	Riverstone Residents' Association	Concerns for buried asbestos waste in the vicinity of Meatworks site	I3-16	The DCP requires a precinct-wide Contamination Management Plan (CMP) to be prepared and adopted by Council prior to the DA process commencing. Refer to Section 1.7.3 Lodgement Requirements, Table 3 of the DCP.

Riverstone	West	Precinct	Post	Exhibition	Report
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APPENDIX 2: RESULTS OF ADDITIONAL FLOOD MODELLING



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Elizabeth Coker
Project Manager – Riverstone West Precinct
Department of Planning
PO Box 1457
PARRAMATTA NSW 2124

20th July 2009

Dear Elizabeth,

PROPOSED REDEVELOPMENT OF RIVERSTONE WEST PRECINCT RESULTS OF FLOOD MODELLING FOR INDICATIVE LAYOUT PLAN

I refer to the detailed flood modelling that was previously undertaken as part of investigations for the proposed redevelopment of the Riverstone West Precinct.

As you are aware, WorleyParsons prepared a Flood Impact Assessment Report in December 2008 which documented the results of flood modelling that had been undertaken to determine the potential impact of filling associated with the Precinct development on local flood characteristics. The report was titled *'Proposed Redevelopment of Riverstone West Precinct - Flood Impact Assessment'* (Issue No.4, December 2008).

The investigations documented in the Flood Impact Assessment Report established that the proposed development, as configured in September 2008, would not have any adverse impacts on the characteristics of flooding along Eastern Creek. It was demonstrated through detailed flood modelling that the proposed development would not cause any off-site increases in peak flood levels or peak flow velocities for three flood scenarios involving a combination of local catchment flow and backwater flooding from the Hawkesbury Nepean River system.

Since preparation of the December 2008 report an Indicative Layout Plan (*ILP*) has been developed for the precinct. We understand that the ILP has been developed for inclusion within the Development Control Plan (*DCP*) for the Precinct.

Comparison of the ILP with the previously modelled development footprint indicates that the layout and extent of proposed cut and fill across the precinct has undergone some minor modifications as part of the ILP development process. It is understood that these changes are the result of additional design considerations, such as the curvature of the proposed "spine road" with respect to maximum speed limits.

Based on a preliminary review of the differences in the development layout, it was determined that the changes would not manifest as a measurable change to the flood impacts that were determined previously and which are documented in the December 2008 Report. A note to this effect was incorporated within Section 5 of the Flood Impact Assessment Report (*refer page 18 of Issue No 4*).

Notwithstanding, the Northwest Transport Hub has since requested that we undertake additional flood modelling to confirm that construction of the proposed development in accordance with the Indicative Layout Plan would not result in any off-site impacts on flooding.

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Accordingly, we have modified the "post-development" surface in our flood model to reflect the proposed development as represented by Revision 12 of the Indicative Layout Plan.

The extent of cut and fill that is proposed and which has been incorporated into the model network is shown in **Figures 1**, **2** and **3**. The hatched areas on the figures indicate areas where the cut and fill will be greater than 2 metres. Areas shown with white shading represent areas of the Precinct where the cut and fill will be between zero and 0.2 metres; that is where there will be minimal change to the existing surface.

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