

Response to Submissions

This Response to Submissions Report has been prepared on behalf of Western Parkland City Authority (WPCA) in response to submissions received during the consultation process for Bradfield City Centre (BCC) Stage 2A Enabling Works REF.

Comments were received from the following public agencies:

- Liverpool City Council (LCC)
- State Emergency Services (SES)
- NSW Department of Climate Change, Energy, the Environment and Water (DCCEEW)
- Sydney Water (SW)
- Sydney Metro (SM)
- Transport for NSW (TfNSW)

In response to the comments raised the various agencies, the proposal has been amended as follows:

- The proposal has been amended to include additional raised pedestrian crossings.
- The location of some street trees has been amended to ensure adequate sightlines are provided.
- Additional opportunities for localised informal pedestrian crossings have been proposed.
- The proposal has been modified to include additional shade tree, amenity planting, reduced paving to match proposals extending along adjoining roads.

The following supplementary information has been provided as appendices to the REF in response to comments raised:

- BCC Master Plan Salinity Investigation (inclusive of Salinity Management Plan) prepared by Douglas Partners
- Supplementary biodiversity advice prepared by Biosis
- MUSIC model prepared by SMEC
- BCC Master Plan Geotechnical Report prepared by Douglas Partners

In addition, the following documents have been updated in response to the agency comments:

- Traffic Impact Assessment prepared by SCT Consulting
- Civil Engineering Drawings prepared by SMEC
- Landscape Drawings prepared by Taylor Brammer
- Engineering Design Report prepared by SMEC
- Construction Environmental Management Plan prepared by SMEC

Consultation with Liverpool City Council

LCC were notified by WPCA on 29 February 2024 via email of WPCA's intention to carry out the proposed activities. A copy of this correspondence is provided at Appendix O of the REF. A summary of the comments received from LCC and WPCA's response is provided in the following table.

Table 1 Response to LCC comments

LCC COMMENT	WPCA RESPONSE	REFERENCE
1. Council requests that WPCA provide a written outline describing the process by which the proposed Bradfield City Centre infrastructure/enabling works development is proposed to progress, clearly identifying where within this process Council comment and/or approval is required.	The Stage 2A enabling works are being carried out under Part 5 of the Act as development permitted without consent. LCC was notified in accordance with requirements of the T&I SEPP for comment.	
2. The enabling works within the public domain will eventually be handed over to Council. As part of the development of the Bradfield City Centre, public domain works are being delivered by WPCA, TfNSW, Sydney Water and Sydney Metro.	WPCA is committed to continuing engagement with LCC in relation to the development of the Stage 2A enabling works and the delivery of infrastructure.	
3. It is unclear from the information provided, how the proposed enabling works achieve compliance with the relevant strategic planning framework for the site. In this regard, it is noted that the Bradfield City Centre Masterplan has not yet been determined. Additionally, no consideration of the Aerotropolis Plan 2020 has been undertaken.	<p>The Aerotropolis Plan 2020 (AP) defines how the broader region's environment, waterways, strategic transport network, infrastructure and economy will combine to transform the Aerotropolis into a contemporary metropolitan city. The AP introduced statutory mechanisms to implement the vision and objectives including precinct plans and master plans.</p> <p>As described throughout the REF, the proposed activities will be undertaken generally in accordance with the requirements of the Western Sydney Aerotropolis Precinct Plan and the WSA DCP which have been prepared in accordance with the AP.</p> <p>Further, the Stage 2A REF road layout is entirely consistent with the TAP endorsed Draft Bradfield City Centre Master Plan and has been prepared in accordance with the Department of Planning and Environment Technical guidance for achieving Wianamatta–South Creek stormwater management targets.</p>	Addressed in REF Report
4. REF must consider the latest version of the Western Sydney Aerotropolis Precinct Plan, being May 2023. Any proposed variations to the WSAP (May 2023) must be identified in the REF.	N/A – the changes to the Aerotropolis Precinct Plan made in May 2023 do not have any bearing on the scope of the Stage 2A REF.	N/A
<p>5. The REF is to be amended to demonstrate that all proposed works are in accordance with the requirements of both the Bradfield Masterplan (when approved) and the Strategic Planning Framework including:</p> <p>-Aerotropolis Plan (AP) 2020</p> <p>-Western Sydney Aerotropolis Precinct Plan (WSA-PP) May 2023</p>	Refer to response to Item 3 above.	Addressed in REF Report

-Western Sydney Aerotropolis Development Control Plan (WSA-DCP) and accompanying supporting plans including:

-Department of Planning and Environment Technical guidance for achieving Wianamatta–South Creek stormwater management targets.

If a variation is proposed, such a variation should be identified, and suitable justification should be provided.

6. The contact details and qualifications of the Principal/Crown Certifier appointed to be responsible for the certification of plans and the inspection of works on site must be provided to Council.	<p>Contact details are provided below for the Crown Certifier for the certification of plans:</p> <p>Stuart Boyce Jensen Hughes Pty Limited, Trading as BCA Logic</p> <p>ABN 29 077 183 192 Suite 302, Level 3/151 Castlereagh St, Sydney NSW 2000, Australia</p> <p>Inspection of the works will be provided by the LCC development engineering team.</p>	
7. It appears that some work is proposed within and immediately adjacent to land within the Environment and Recreation Zone. There appears to be the potential to impact on identified “existing native vegetation” on the High Biodiversity Value Areas Map. Any enabling works on the site must demonstrate compliance with Clause 4.25 and 4.25A of State Environmental Planning Policy (Precincts – Western Parkland City) 2021.	NA – the Stage 2A REF site is not located within or adjacent to any land zoned Environment and Recreation pursuant to WPC SEPP.	N/A
8. Bradfield City Centre Stage 2A REF Biodiversity Addendum Final Report recommends: "Identifying the locations where the TECs and native vegetation to be retained as No Go zones in a project Construction Environmental Management Plan (CEMP) or similar."	Noted. The CEMP has been updated to incorporate this recommendation.	Refer to updated CEMP at Appendix I
9. The CEMP provided with the Stage 2 Enabling Works does not identify where these no go zones are located and further, it does not identify measures to ensure existing native vegetation is retained and improved as part of works. It is recommended that:	See comment above.	Refer to updated CEMP at Appendix I
<p>(a) All development plans identify where ENZ Zoned land is located and where existing native vegetation” on the High Biodiversity Value Areas Map is located and that these areas are physically fenced off on site to ensure that this vegetation is protected and retained. A site consulting arborist with a minimum AQF Level 5 is to be appointed and is to provide onsite recommendations as to the placement of the tree protection fence to the extent of the tree protection zone (TPZ) of the mapped vegetation.</p> <p>(b) The CEMP must be updated to include measures for the protection of this vegetation in accordance with the recommendations of the Biodiversity Addendum Final Report, dated 27 February 2024, prepared by Biosis and comments 6 above.</p> <p>(c) The site biologist is to liaise with the site landscape architect to identify critically endangered or threatened local species that can be included within the public domain landscape plan. The Bradfield City Centre Stage 2A REF Biodiversity Addendum Final Report, dated 27 February 2024, prepared by Biosis, is to be</p>		

amended to include a section relating to biodiversity replacement planting in this regard

10. The draft Masterplan has not suitably addressed how salinity on the site is to be addressed. Council will not agree to the handover of infrastructure to Council ownership unless all infrastructure with the potential to be impacted by salinity and sodicity is demonstrated to have been designed, constructed, inspected (including suitable photographic evidence) and certified to have been completed in accordance with site specific and infrastructure specific salinity mitigation techniques included in the salinity management plan.	A detailed Salinity Investigation including a Salinity Management Plan (SMP) has been prepared for the TAP endorsed Draft Bradfield City Centre Master Plan and is submitted with this REF. LCC will be given the opportunity to inspect the site and the construction works. The civil and structural design proposed as part of the Stage 2A enabling works has adopted the recommendations from the SMP.	Refer to Appendix R
<p>11. In this regard the “Report on Geotechnical and Salinity Assessment Stage 2A Bradfield City Centre 215 Badgerys Creek Road, Bradfield,” Reference: Project 222630.00, dated January 2024 prepared by Douglas Partners has provided the comment that:</p> <p><i>The mild and moderate aggressivity to concrete and steel, the presence of moderately saline and very saline and highly sodic soils are naturally occurring features of the local landscape and are not considered significant constraints to the proposed development, provided appropriate management techniques are employed. Refer Section 8 of the DP Salinity Report (Appendix C) for the Salinity Management Plan.</i></p>	See comment above.	Refer to Appendix R
<p>12. It is noted that the Salinity Report and accompanying Salinity Management Plan have not been provided with the Stage 2A Enabling Works review of environmental factors. As such it is recommended that:</p> <p>(a) The Stage 2A Enabling Works review of environmental factors must be supported by both a Salinity Report and Salinity Management Plan. The Salinity Management Plan must identify site specific and infrastructure specific mitigation measures that will ensure the longevity of infrastructure potentially impacted by salinity, sodicity and soil aggressivity.</p> <p>(b) All development, landscape and engineering plans must include identified measures to mitigate salinity, sodicity and soil aggressivity in accordance with the Salinity Management Plan. All plans are to be certified by the Geotechnical Engineer who prepared the Salinity Management Plan prior to any works being undertaken on site.</p> <p>(c) The Salinity Management Plan must be amended to detail construction stop work points to enable to inspection of works for compliance with the Salinity Management Plan. The Salinity Management Plan must specify that both the Principal Certifier and the Geotechnical Engineer who prepared the Salinity Management Plan are to attend each of these inspections on site and provide photographic evidence of the inspection.</p>	See comment above.	Refer to Appendix R
13. The proponent is to provide a clear outline of the process by which infrastructure planning, assessment, certification, finalisation, handover and dedication is to operate. This process must clearly indicate Council’s role at each stage in the process.	WPCA is committed to continuing engagement with LCC during the detailed design stages of the Stage 2A enabling works.	

Inspection of the works and finalisation and handover will be overseen by the LCC development engineering team.

14. The information submitted with the Stage 2A Enabling Works review of environmental factors does not make any allowance for the provision of public art within the public domain as part of the infrastructure development in accordance with this report and the Bradfield Masterplan. As such it is recommended that the plans and supporting information for the roads and infrastructure provision include consideration for the inclusion of Public Art at an early stage in the development.	N/A – the provision of public art does not form part the Stage 2A enabling works REF.	N/A
Ideally Public Art should be included within the public domain once the level of infrastructure provision allows for public access to the site. Details in relation to the planning, assessment, location, contracting and provision of public art is to be commenced at this stage. Council's Public Arts Officer is to be engaged to collaborate in relation to this process.		
15. Landscape Plan identified as "Planting Schedule," drawing: REF2(a).LA 105, Revision C, dated 13/2/2024, prepared by Taylor Brammer Landscape Architects Pty Ltd is to be amended to include a canopy key so each tree type can be readily identified within the Landscape Plan package.	Noted, the Landscape Drawings have been updated to annotate the proposed tree species on all plans. Corresponding codes are shown on LA 105 – Planting Schedule Revision D.	Refer to Appendix E
16. Landscape Plan identified as "Planting Schedule," drawing: REF2(a).LA 105, Revision C, dated 13/2/2024, prepared by Taylor Brammer Landscape Architects Pty Ltd is to be amended to include minimum pit dimensions, soil volume, soil type and drainage requirements for each identified tree type proposed.	Refer to LA900 – Landscape Details Revision D for further detail in relation to the proposed soil type, drainage and detailing for the proposed works. The details have been prepared with reference to the Western Sydney Engineering Design Manual and developed to respond to the specifics of the proposed REF design.	Refer to Appendix E
17. An additional landscape plan is to be provided identifying tree fencing, pruning, weeding, watering and general maintenance details. The plan is to specify a minimum timeframe for this maintenance to be undertaken to ensure each tree is self-sufficient.	Refer to new drawing; LA 106 – Maintenance Plan Revision A for detail relating to general maintenance activities of the proposed works.	Refer to Appendix E
18. An additional landscape plan is to be provided in relation to small trees, understory and groundcover planting identifying tree fencing, pruning, weeding, watering and general maintenance details. The plan is to specify a minimum timeframe for this maintenance to be undertaken to ensure each tree is self-sufficient.	All proposed trees are reflected in the updated Landscape Drawings and LA 105 – Planting Schedule Revision D. Overall quantities of groundcovers are also reflected on LA 105 – Planting Schedule Revision D with LA 106 – Maintenance Plan Revision A outlining the general maintenance activities of the proposed works.	Refer to Appendix E
19. Opportunities for the provision of trees to be included throughout the site that replace the species types that have been removed as part of the development should be included within	The proposed tree species follows species identified on the WSA DCP and are provided in mature pot sizes	Refer to Appendix E

the landscape plans at spacings in accordance with 2.10.3 of the Western Sydney Aerotropolis DCP.

Any juvenile trees and seedbank that have been retained in accordance with the instrument of consent for the first building in Bradfield (SSD- 25452459), see condition B21, should be grown out to a suitable size and included in the public domain landscape plans where such seedbank and juvenile trees cannot be entirely accommodated on the Bradfield First Building Site (in accordance with the instrument of consent to the satisfaction of the planning secretary). In this regard, the following is recommended:

(a) The landscape plan is to be amended to incorporate any remaining juvenile trees, small plants and seedbank that remains from the Bradfield First Building Development, noting that juvenile trees and seedbank was conditioned to be retained as part of the development under the instrument of consent for SSD-2542459.

(b) The landscape architect and the consulting biologist liaise and identify any locally endangered species that can be included as planning within the public domain landscape plans. The landscape plan is to indicate what species have been introduced following discussion with the site biologist.

in accordance with the Western Sydney Engineering Design Manual.

Comment a) does not apply to the Stage 2A REF as it relates to a separate planning application.

20. For clear visibility to ensure pedestrian-safe crossing. Street trees are to be set back to an appropriate distance from the traffic signal/multifunction poles on the approach side.	The location of the proposed trees has been amended on the relevant Landscape Drawings. All proposed trees are of a clear stemmed quality with high level canopy to ensure clear sight lines are provided. Sight lines are prioritised to ensure visibility of oncoming vehicular and pedestrian traffic in an approaching direction.	Refer to Appendix E
21. Some streets do not provide access from the on-street parking to the footpath, as provided on the east side of Innovation North. This treatment is to be incorporated into all streets that provide on-street parking. Council questions whether this treatment is adequate for pram users and people with reduced mobility, please see the image right hand side of the table:	Noted, the Landscape Drawings have been updated to address this comment. Additional opportunities for localised informal pedestrian crossings have been included.	Refer to Appendix E
22. The engineering package does not include the raised crossings shown in the landscape package. To ensure all plans are consistent the engineering plans must show all city street raised crossings in compliance with the proposed Commercial High Street Typology in Section 8: Movement of the Aerotropolis Core Urban Design Report, please see the image right hand side of the table.	Noted. Raised pedestrian crossings have been included in updated Civil Engineering Drawings.	Refer to Appendix A
23. Council questions if there are enough street crossings provided. The plans only show a raised zebra crossing at the end of Innovation Street (west). This crossing does not seem to provide enough street permeability to ensure pedestrians' and cyclists' ease of movement. In the event of someone parking in the east on-street parking area with the destination placed across the road for safe movement, it would have to go west and back east, as illustrated in the image, please see the image right hand side of the table.	The design of all streets allows for the potential need to accommodate future on-grade pedestrian crossings.	

<p>24. Bradfield Central Park Street Design provides extensive pavement treatment at the end of its design for Innovation South. This does not seem to align with the proposed intersection as this does not lead to a street crossing.</p> <p>Due to the proximity to the metro station and the high volume of pedestrians on this street, this intersection is to be better resolved to provide effective movement of people over vehicles, reduce hard pavement and increase landscaping and tree planting.</p>	<p>A raised pedestrian crossing is provided at the junction of Innovation South and Innovation West approximately 100 metres from this location. This will ensure the safe movement of pedestrians from the station across the precinct.</p> <p>The Landscape Drawings have been modified to include additional shade tree, amenity planting, reduced paving to match proposals extending along adjoining roads. Refer updated LA401, LA 703 and LA704 Revisions D.</p>	Refer to Appendix E
<p>25. The intersection shown below should have the same raised crossing treatment as the one in front. To ensure pedestrian movement is prioritised over vehicle movement.</p>	<p>The intersection has been designed as a 'give way' intersection for the east and west legs and vehicles will be required to slow on approach.</p> <p>A raised pedestrian crossing was discounted during design as this would cause vehicle to queue through the intersection.</p>	
<p>26. The intersection of Centre Loop West and Innovation North provides a crossing point to the on-street parking. It is unclear if this is a formalised intersection.</p> <p>To provide easy access to and from the on-street parking, Council requests that this intersection be revised to provide a better pedestrian-friendly outcome.</p>	<p>This statement is incorrect. The intersection of Centre Loop West and Innovation North does not provide a crossing point to the on-street parking. Refer to drawing REF plan - 30013454.01.REF101.</p>	
<p>27. It is noted that the Master Plan is on public exhibition. The proposed stage 2A enabling work should be consistent with the street layout as shown under the Master Plan.</p>	<p>The Stage 2A REF street layout is entirely consistency with the street layout shown in the TAP endorsed Draft Bradfield City Centre Master Plan.</p>	
<p>28. Clarification is required about road classification, ownership and maintenance responsibilities for the proposed road network, particularly the road network adjacent to the Sydney Metro station.</p>	<p>The Civil Engineering Drawings detail road hierarchy. Roads adjacent to the Sydney Metro Station are being delivered on behalf of WPCA and will ultimately be transferred to LCC. WPCA is committed to continuing engagement with LCC in relation to the development of Bradfield City Centre and the delivery of infrastructure.</p>	Appendix A
<p>29. Section 138 application must be lodged via Council's online planning portal for civil design and road construction works on any public road.</p>	<p>N/A – A Section 138 application is not required for the Stage 2A enabling works REF.</p>	N/A
<p>30. A construction traffic management plan should be prepared and submitted to Council/TfNSW for endorsement as part of Section 138 application.</p>	<p>See comment above.</p> <p>The requirement to prepare a CTMP is already incorporated as a mitigation measure in the REF Report.</p>	Refer to Mitigation Measures Section of REF Report

31. It is noted that traffic signals are proposed at the intersections of Centre Loop West /Centre Loop South and Road 01 Innovation East (Transit Blvd)/Centre Loop South. The proposed signal layouts should be sent to TfNSW for “in principle” approval to confirm footprints of these two ultimate signalised intersections.	TfNSW has been notified of the proposed activities as part of the REF consultation process. Comments received from TfNSW are addressed in this RTS Report	
32. Confirmation is required with regard to delivery timing and layout of the proposed signalised intersection of Badgerys Creek Road/Road 02(Metro Link Road). The proposed signalised layout and associated TCS plan should be submitted to TfNSW for approval in consultation with Council.	N/A – this does not form part of the Stage 2A enabling works REF and is to be delivered by TfNSW.	N/A
33. Confirmation is required for the largest vehicle (i.e. PBS vehicle) for turning path analysis.	Intersections have been designed for a 14.5m rigid bus. Swept paths have been attached to the Engineering Design Report which demonstrate this vehicle can be accommodated.	Refer to Appendix D
34. Pedestrian and cyclist crossing facilities should be identified and incorporated into design package for the proposed road works.	Noted, a mitigation measure has been included in the REF Report to ensure that pedestrian and cyclist crossing facilities are incorporated into the proposed road works.	Refer to Mitigation Measures Section of REF Report
35. Any traffic control device, parking, pedestrian and cyclist crossings and regulatory signage and line marking plans must be submitted to Council’s Transport management team to be presented to Liverpool Local Traffic Committee meeting for endorsement and Council’s approval. The design is to include the following: a) Indented parking bays and associated landscaping should be submitted to Council for review and approval. b) Bus stopping zones, EV charging stations, taxi rank location and pick up/drop zone should be identified on the design plans. c) Pedestrian and cyclist crossing facilities. d) Roundabout is recommended for two intersections along Road 06 (Centre Loop West) at the intersections of Road 04 and Road 05 to facilitate traffic movements to/from the Bradfield City Centre Metro station. e) It is recommended that high pedestrian activity area (40 km/h zone) be established within the Metro station precinct and approved by TfNSW.	Noted, a mitigation measure has been included in the REF Report to address this requirement. Detailed design will be submitted to Council’s Local Traffic Committee for endorsement and approval.	Refer to Mitigation Measures Section of REF Report
36. Confirmation is required with TfNSW/Sydney Metro for the following: (a) Design and delivery timing of Badgerys Creek upgrade and associated traffic signals and access treatments for Metro Link Blvd, Road 7 and Road 5; (b) Interim and ultimate bus routes to/from Bradfield City Centre and the metro station; (c) Design and delivery timing of the section of Road 1 (transit blvd) as part of Bradfield metro station construction. The design plan for Road 01 between Metro Link Blvd and the southern roundabout, south to Road 5 should be submitted to Council/TfNSW for review and approval.	(a) N/A as this does not form part of the REF scope. (b) Consultation with TfNSW is ongoing regarding bus routes. (c) N/A as this does not form part of the REF scope.	

37. The proponent should lodge an application to Council for the nominated road names of the proposed local roads. Consultation with the GNB is encouraged.	N/A – This does not form part of the REF scope. This will be addressed by the WPCA Master Plan Team in consultation with LCC.	N/A
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Consultation with Other Agencies

DCCEEW

While not mandatory, the NSW Department of Climate Change, Energy, the Environment and Water (**DCCEEW**) was notified by WPCA on 29 February 2024 via email of WPCA's intention to carry out the proposed activities. A copy of this correspondence is provided at Appendix T. A summary of the comments received from DCCEEW and WPCA's response is provided in the following table.

Table 2 Response to DCCEEW comments

DCCEEW COMMENT	WPCA RESPONSE	REFERENCE
<p>1. BCS's submission on the draft Master Plan highlighted significant issues regarding the adequacy of the flood impact assessment.</p> <p>BCS has reviewed the Bradfield City Centre Master Plan Application flood impact (risk) assessment (FIRA) prepared by Advisian and advises it does not adequately address the flood planning Master Plan Requirements (MPR14).</p> <p>As advised by BCS in July 2023, MPR14 requires consistency with the Flood Risk Management (FRM) Manual and the Flood Impact and Risk Assessment – Flood Risk Management guideline LU01.</p>	<p>N/A - This comment relates to the TAP endorsed Draft Master Plan, not to the Stage 2A enabling works REF.</p> <p>Notwithstanding, it should be noted that Clause 2.5 of the WSA DCP does not apply as the site is located outside flood planning area of the probable maximum flood (PMF).</p>	
<p>2. BCS's submission on the draft Master Plan highlighted significant issues regarding inconsistencies in the biodiversity assessment and the assessment of impacts on biodiversity values.</p> <p>The Greater Sydney Local Land Services (GSLLS) recently advised BCS of the potential presence of Elderslie Banksia Scrub Forest (EBSF) within the Master Plan area. EBSF is listed as critically endangered under the BC Act and Environment Protection and Biodiversity Conservation Act 1999.</p> <p>BCS notes these species are not listed in the BSIA and no figures are given showing where the study area was traversed for vegetation surveys (as noted above, BCS has not reviewed the GIS shape files detailing where random meanders for the field surveys took place). BCS also notes that EBSF is listed in Appendix 3 (Protected Matters Search Tool Output) of the BSIA. Given the highly threatened status of EBSF and its potential to occur at the site, BCS recommends the area within Figure 5 be surveyed to verify the vegetation communities present. If EBSF is confirmed, measures should be taken to avoid and mitigate impacts in a revised Master Plan.</p>	<p>As per advice received from Biosis, there is no presence of the Elderslie Banksia Scrub Forest within the boundaries of the Stage 2A works. This comment therefore does not apply to the Stage 2A REF.</p>	Refer to Appendix S
<p>3. The BSIA is not clear on whether Marsdenia viridiflora subsp. viridiflora - endangered population occurs within the Master Plan area. With regards to mitigating impacts for this species, the BSIA</p>	<p>As per advice received from Biosis, Marsdenia viridiflora subsp. Viridiflora is located outside of the</p>	Refer to Appendix S

recommends ‘individuals should be protected through No-Go zones ...’ if future works in the area are required (BSIA, p. 87). BCS considers it should be a requirement that these individuals are protected in the long term. There should also be a requirement for their in-situ protection, and for the use of buffers to minimise potential indirect impacts. Expanding the ENZ in this area would assist to achieve this. Regarding the BSIA recommendation that options for the relocation of individuals be investigated, BCS advises that translocations are generally not appropriate for mitigating impacts from development as they are generally complex and historically have a high rate of failure.

boundaries of the Stage 2A works. This comment therefore does not apply to the Stage 2A REF.

4. While acknowledging the need to address the issues raised above in a revised BSIA, BCS recommends a reconfigured Master Plan that excludes stormwater and other infrastructure from the vegetated areas north and south of Moore Gully would achieve a better biodiversity outcome.

N/A - These comments relate to the Draft BCC Master Plan, not the Stage 2A REF.

5. BCS’s submission on the draft Master Plan highlighted significant issues regarding additional information required to ensure the proposed erosion and sedimentation controls and water sensitive urban design for the Master Plan area can achieve the required Wianamatta South Creek waterway health and stormwater management targets in accordance with the technical guidance for achieving Wianamatta–South Creek stormwater management targets (DPE, 2022).

BCS also recommends further information, including diagrams, be provided to explain the use of flow diversions/secondary drainage links within the MUSIC model and other rationale for the modelling choices. In addition, the MUSIC model and strategy should be revised to ensure consistency with the Toolkit and Sydney Water Study.

This issue must be addressed prior to finalisation of the Master Plan to ensure adequate space is provided for WSUD elements in the proposed layout.

These comments are related to the Draft BCC Master Plan and the multicell bioretention basins and wetlands proposed as regional basins.

The Stage 2A REF provides temporary bio retention basins (Basin 1 and 2) until the regional basins are constructed (which are part of a separate planning approval). These basins will control stormwater quality as per Wianamatta–South Creek stormwater management targets (DPE, 2022).

A MUSIC model has been prepared for the Stage 2A enabling works REF.

6. As submissions to the draft Master Plan and the outcome of any additional assessments have yet to be considered, BCS strongly recommends determination of the REF be deferred until the Master Plan has been finalised.

The Stage 2A enabling works REF is generally in accordance with the approved Precinct Plan and WSA DCP.

Determination of the Stage 2A REF does not rely on the approval of the TAP endorsed Draft BCC Master Plan.

Transport for NSW

While not mandatory, Transport for NSW (TfNSW) were notified by WPCA on 29 February 2024 via email of WPCA’s intention to carry out the proposed activities. A copy of this correspondence is provided at Appendix R of the REF. A summary of the design advice received from TfNSW and WPCA’s response is provided in the following table.

Table 3 Response to TfNSW design advice

TFNSW DESIGN ADVICE	WPCA RESPONSE	REFERENCE
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1. *Bus Stops*

DDA/DSAPT compliant bus stops to be provided in locations provided by TfNSW. These stops should be provided as floating bus stops, with buses stopping in the kerbside lane, and cycle paths diverting around the back of the bus stop passenger waiting areas.

As agreed with TfNSW, prior to the relevant elements being constructed, WPCA will continue to consult with TfNSW on location and requirements for bus stops.

2. *Road Design and Layout*

The design of proposed roads and intersections address the operational needs of buses and coaches (including the location of lighting, bus stops, blister location/kerbside parking lane widths and swept paths based on 14.5m bus, including two lane approaches and departures on all legs of intersections along Road 5 and Road 6 and ability to undertake corresponding right-turn movements simultaneously) in consultation with TfNSW and endorsement prior to any construction, including provision and endorsement of an updated swept path analysis and traffic modelling.

Adjustment to kerbside lane through widening, removal of planter boxes and removal of permeable paving to accommodate potential future bus service.

The road design including kerbside lanes have been designed to meet the requirements of the TMAP.

The roads and intersections have been designed to meet the immediate needs of buses and coaches as identified in the TMAP. WPCA will continue to consult with TfNSW on swept path analysis and traffic modelling prior to construction.

Notwithstanding this, the TMAP identifies potential bus servicing from 2036-2056 will consider bus priority measures for parts of the Bradfield City Centre. It should be noted that the TMAP does not specify dedicated bus lanes in any future scenario within that timeframe.

WPCA consider the provision of planter boxes, permeable paving and wider verge a greater public benefit with regards to sustainability and liveability until such time as the potential dedicated bus lane is required.

3. *Communication and Engagement*

Regular discussions are requested with TfNSW and Liverpool City Council prior to finalising future TIAs and REFs for the Bradfield City Centre regarding critical bus design and other network issues.

WPCA are committed to continued engagement TfNSW and Liverpool City Council on future TIAs and REFs.

4. *Landscape & Furniture Setout*

Trees and street furniture will need to be set back at least 800mm from kerblines at bus stops and where buses turn and manoeuvre to ensure buses do not strike tree trunks or landscaping

A setback of 800mm from face of kerb to the face of proposed tree trunks can be incorporated into the detailed design. This metric is reflected on updated LA 900 – Landscape Details Revision D. It is noted that all proposed trees are of a clear stemmed quality with high level canopy to ensure clear sight lines and access is provided across the proposal.

LA 900 –
Landscape Details
Revision D

5. Alignment with the Draft Master Plan

Clearly document any deviations or changes to the typical cross section proposed for any of the corridors and confirm any amendments that would require adjustment to the draft Master Plan (if any)

The proposed road design alignment has been designed in accordance with the Aerotropolis Precinct Plan. The proposed road cross sections align with proposed in the TAP endorsed draft BCC Master Plan.

6. Pavement Design

The structural design of pavements, including noise mitigations of the pavement types should be completed in consultation with TfNSW.

Pavement design based on geotechnical reporting is included. Pavement designs will be provided prior to construction for approval by Liverpool City Council as the construction Principal Certifier and ultimate asset owner.

Sydney Water

Sydney Water were notified by WPCA on 29 February 2024 via email of WPCA's intention to carry out the proposed activities. A copy of this correspondence is provided at Appendix V. A summary of the comments received from Sydney Water and WPCA's response is provided in the following table.

Table 4 Response to Sydney Water comments

SYDNEY WATER COMMENT	WPCA RESPONSE	REFERENCE
1. Consider adding in detail about the need to obtain Water Supply Works Approvals or Water Access Licence under the WM Act	Noted, a mitigation measure has been included in the REF which states that where required under the WM Act, approvals will be sought by WPCA.	Refer to Mitigation Measures Section of REF Report
2. The site and surrounding context should include the land identified for regional stormwater infrastructure as published in both the Aerotropolis Precinct Plan (blue green infrastructure framework Fig 5 and Total Water Cycle Management Fig 6) and the Western Parkland City 2021 Land Reservation Acquisition Map Aerotropolis. The REF should include discussion on whether/how these planned land uses are being impacted by the proposal. These requirements should be added to the appropriate sub sections of statutory documents in section 5.	Additional mapping has been provided in the REF Report. There are no impacts to the infrastructure and reservations highlighted on the maps.	Refer to REF Report
3. The proposed road works (future REFs) adjacent to Badgerys Creek Road should be encompassed by the constraints mapping (site boundary) e.g. Fig 3.	N/A – this does not relate to the Stage 2A REF.	N/A
4. The roadworks proposed outside the masterplan area and subject to other REFs must be designed in consultation with Sydney Water as regional stormwater is planned for these areas, as per the Aerotropolis precinct Plan.	Noted.	

5. The REF approval staging map should be brought higher up in the document to better set out the full development context. The REF that will be prepared for the regional stormwater assets adjacent to Moore Gully is currently omitted and should be included in the staging plan.	Noted.	
6. All public roads are required to have passively irrigated street trees as per the Aerotropolis DCP and Sydney Water's regional stormwater strategy. As well as providing shade and aesthetic value, these trees play a role in treating stormwater flows from the city prior to discharge into the planned regional stormwater assets to be delivered by WPCA on behalf of Sydney Water.	Noted, this has been incorporated into the landscape and civil design for the Stage 2A REF.	
7. The development must demonstrate compliance with the NSW Government targets for stormwater Quality and Flow (DPIE 2002). These are also outlined in the Aerotropolis Precinct plan (4.5.1 BG1 and BG2). Compliance must be demonstrated for construction phase, an interim phase prior to the regional scheme being operational and in the ultimate operational phase.	Interim Water Quality and Detention basin has been provided. The water quality targets will be achieved as per the WSA DCP. The measures and results are documented in the Engineering Design Report.	Refer to Appendix D
8. Evidence of stormwater (MUSIC) modelling must be provided to demonstrate compliance with the NSW Government stormwater targets at each stage. Recommend a stormwater appendix be added that includes this level of detail.	Noted, a MUSIC model has been prepared and provided with the REF. Section 4.4 of the Engineering Design Report provides a summary of the model results.	Refer to Appendix T
9. The Wianamatta stormwater targets must be added to the statutory requirements listed and discussed in section 5.	The proposed activity has been designed in accordance with the Department of Planning and Environment Technical guidance for achieving Wianamatta–South Creek stormwater management targets. Refer to updated Engineering Design Report for discussion.	Refer to Appendix D
10. Add the requirement for passively irrigated street trees. Sydney Water can provide general arrangement and/or schematic design.	Noted, this is incorporated in the landscape and civil design for the Stage 2A REF.	
11. Sediment control plan should be designed and implemented in compliance with the Technical guidance for achieving Wianamatta-South Creek stormwater management targets (DPIE 2002).	Noted, a mitigation measure has been included to ensure that sediment basins will be designed as per Wianamatta-South Creek stormwater management targets (DPIE 2002).	Refer to Mitigation Measures Section of REF Report

Sydney Metro

Sydney Metro were notified by WPCA on 29 February 2024 via email of WPCA's intention to carry out the proposed activities. A copy of this correspondence is provided at Appendix U. A summary of the comments received from Sydney Metro and WPCA's response is provided in the following table.

Table 5 Response to Sydney Metro comments

SYDNEY METRO COMMENT	WPCA RESPONSE	REFERENCE
<p>1. Provide a revised Construction Environmental Management Plan for Sydney Metro's review that includes a Staging Plan detailing the following, but not limited to:</p> <p>(a) construction staging of the proposed development</p> <p>(b) the relationship with the construction/delivery of the Metro station</p> <p>(c) the staging of other relevant works</p> <p>(d) Day 1 access to the Metro station</p> <p>(e) measures to mitigate cumulative noise and traffic impacts in collaboration with Sydney Metro</p>	<p>A mitigation measure is included to ensure that prior to construction a detailed CEMP is prepared and provided to Sydney Metro for information purposes.</p>	<p>Refer to Mitigation Measures Section of REF Report</p>
<p>2. Provide a revised Traffic Impact Assessment Report and Appendix A for Sydney Metro's review, including:</p> <p>(a) Clarification on road widths to ensure the clear width is exclusive of kerb and gutter and is consistent with the Western Sydney Aerotropolis Development Control Plan 2022</p> <p>(b) Consideration of bus access and routing as a key determinant for staged road delivery</p> <p>(c) Clarification on implications of the proposed staging of these works on Day 1 bus access through the road connecting to Innovation East and routing for the Aerotropolis station</p> <p>(d) SIDRA Layout provided by SMEC</p> <p>(e) Alternative intersection layout to improve performance - the proposed signalised intersection would still result at level of service E/F with long vehicle queue on some movements/approaches.</p> <p>(f) Heavy vehicle assumptions for inclusion in Appendix B</p>	<p>a) Road width is to the face of kerb which is consistent with LCC requirements and design consistent with DCP</p> <p>b) The design allows for bus access along key road routes as per agreement between Sydney Metro, WPCA and TfNSW.</p> <p>c) Future REFs will consider bus access to Badgerys Creek Road.</p> <p>d) SIDRA has been included in the existing Traffic Impact Assessment prepared by SCT Consulting.</p> <p>e) Consultation is ongoing with TfNSW in regard to the design of all signalised intersections.</p> <p>f) Standard vehicles and busses have been considered. Individual DAs to consider the impact of heavy vehicles.</p>	
<p>3. Recommend amending Civil Engineering drawings and provide them to Sydney Metro for further review, including:</p> <p>(a) Clarification on road widths to ensure the clear width is exclusive of kerb and gutter and is consistent with the Western Sydney Aerotropolis Development Control Plan 2022.</p> <p>(b) Demonstrate compliance with AS2890.5 and reflect the missing taxi rank at the intersection with Road 12 and Innovation East and provide its proposed width.</p> <p>(c) Indicate the correct location of replacement buses in Appendix A, Page 7 Figure and maintain the 3-metre parking lane</p> <p>(d) Confirm the road design has been considered holistically to ensure integration with future road connections onto and from the Sydney Metro site, alignment with the levels proposed in the B3 agreement and any interface with Sydney Metro site.</p>	<p>a) Road widths are consistent with Aerotropolis DCP. Refer to typical section plans.</p> <p>b) Sufficient parking length is available on Road 04 for taxi rank. Parking will be documented as per B3 agreement and AS2890.5.</p> <p>c) to be documented in detail design in signage and line marking plans</p> <p>d) Road design levels are consistent with Sydney Metro. to be coordinated further.</p>	
<p>4. Amend Page 6 Attachment A to indicate the Sydney Metro Access Road as a shared zone area as per WPCA's interface agreement with Sydney Metro. It is also recommended that the</p>	<p>Sydney Metro have been issued all contamination related assessments and studies, include SAR & SAS.</p>	

revised Contamination Assessment be provided to Sydney Metro for further review.

The requested amendment to the Contamination Assessment is not required, as the referred to Figure in the Assessment correctly labels the Sydney Metro access road as being excluded from the scope of report. Sydney Metro is responsible for the assessment of these areas under the relevant legal interface agreements and licences that have been executed by the parties.

5. Recommend amending the REF to include:

(a) Consideration of cumulative impacts to the precinct as noted in the first point of this table

Fill exclusion zone is documented on the civil earthwork's plans. – refer to cut and fill plan (30013454.01.REF051).

(b) Include the following environmental management measures to be consistent with the flooding assessment: "fill should not be placed in the 'fill exclusion zone' identified in Figure 3 of the Flood Impact Assessment.

6. Add reference to the Sydney Metro Section A1 SAS prepared by the Site Auditor (Andrew Lau of JBS&G), dated 20 September 2023, per the requirements of the Metro/WPCA B1 and B2 Interface Agreement.

N/A - no works are proposed within the Sydney Metro licensed area under this REF, therefore the requirements of the comment are not necessary. The Stage 2A REF does not proposed any works with in the Sydney Metro Lease area.

-Sydney Metro notes that Figure F1 of Appendix P specifically excludes work within the Sydney Metro licensed area. However, should works be proposed within the Sydney Metro licensed area, explicit reference Sydney Metro's Site Audit Statement to ensure that WPCA's works do not compromise or invalidate the SAS.

7. Provide a revised Construction Environmental Management Plan to Sydney Metro for review including, but not limited to:

The CEMP has been updated to address this comment. Specialist reports referenced in the CEMP are named according to the REF appendix references. Refer to Section 5 Page 7, Section 11 and Section 16 of CEMP in response to rest of comments.

Refer to Appendix I

(a) All specialist reports referenced in the Plan and the following missing elements: *Location of temporary detention/bioretenention basins Section 11 to include the likelihood of if Acid Sulfate Soils are to occur on site

*Section 16 to include monitoring times (i.e., daily, after heavy rain etc)

(b) Confirmation that the cut and fill depths will not alter drainage flow paths to drain water into Sydney Metro's clean water diversion drain located on the western edge of the work site

A mitigation measure has been included to ensure that prior to construction a detailed CEMP will be provided to Sydney Metro for information.

(c) Proposed erosion and sediment controls proposed at the boundary with Sydney metro site for inclusion in Section 5 to ensure no untreated construction water flows into Sydney Metro's site

8. Amend report to include a review of the PMF events to confirm that there will be no downstream impacts to the metro station' flood immunity from the proposed works. It is requested that the amended report be provided to Sydney Metro for further review.

The mixed-use zone within the site is not classified as flood prone land. The 1% AEP Flood extent is contained within land zoned Environment and recreation - mainly located along Thompsons Creek, which is area nominated for future stormwater infrastructure,

natural parkland and other publicly accessible open space.

The Probable Maximum Flood level based on the PMF levels contained the Wianamatta South Creek Catchment Flood Study dated May 2022 show that future mixed use development footprints lie outside flood impacted areas. Additional modelling for the full extent of flood is not required.

Through the TAP process, it was agreed that additional flood modelling was not required as the developable areas of BCC are not included in the mapped flood prone land.

State Emergency Services

State Emergency Services (SES) were notified by WPCA on 29 February 2024 via email of WPCA's intention to carry out the proposed activities. A copy of this correspondence is provided at Appendix S. A summary of the comments received from SES and WPCA's response is provided in the following table.

Table 6 Response to SES comments

SES COMMENT	WPCA RESPONSE	REFERENCE
1. (a) Consider undertaking additional modelling encompassing the full range of flood risk to the site including modelling up to the Probable Maximum Flood (PMF) level, as well as considerations for climate change scenarios in respect to onsite flooding.	The mixed-use zone within the site is not classified as flood prone land.	
(b) Consider the impact of flooding on the development site, neighbouring properties, infrastructure and people using the site up to and including the PMF.	The 1% AEP Flood extent is contained within land zoned Environment and recreation - mainly located along Thompsons Creek which is area nominated for future stormwater infrastructure, natural parkland and other publicly accessible open space.	
	The Probable Maximum Flood level based on the PMF levels contained the Wianamatta South Creek Catchment Flood Study dated May 2022 show that future mixed use development footprints lie outside flood impacted areas. Additional modelling for the full extent of flood is not required.	
	Through the TAP process, it was agreed that additional flood modelling was not required as the developable areas of BCC are not included in the mapped flood prone land.	

2. Seek advice from the Department of Climate Change, Energy, the Environment and Water (DCCEEW) regarding the impact of the proposed development on flood behaviour for adjacent and downstream areas.	Consultation has been undertaken with DCCEEW as part of preparing this REF.
3. Pursue site design and stormwater management that reduces the impact of flooding and minimises any risk to the community. Any improvements that can be made to reduce flood risk will benefit the community.	Stormwater has been designed in accordance with the DCP requirements. The scope of this REF does not include flood mitigation works, but works do not increase flood risk etc.
4. Ensure workers and people using the site during and after the construction are aware of the flood risk, for example through site inductions, by using signage and other flood information tools.	This is included as a mitigation measure within the CEMP.
5. Consider closing the worksite and securing all materials and equipment prior to the start of the working day if there is a risk of riverine flooding, on receipt of advice from the Bureau of Meteorology (BoM), or when other evidence leads to an expectation of flooding. During site works, check the BoM website prior to start of the workday for any Flood Warnings.	Noted. This is included as a mitigation measure within the CEMP.
6. If the construction phase of the upgrades causes disruption to the operation of local roads, this may impact the ability for emergency vehicles to use these routes. The NSW SES requests that notification be provided where there are likely to be significant delays in the operation of the roads affected by the upgrades.	N/A REF not upgrading any existing public roads.