12 November 2025

Ms Catriona Shirley
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Industry Assessments, Department of Planning Housing and Infrastructure
Locked Bag 2050, Parramatta, NSW 2124

Dear Catriona

SSD 76397489 – CANVAS ESTATE – ENVIRONMENTAL IMPACT STATEMENT – PUBLIC EXHIBITION - FAIRFIELD COUNCIL SUBMISION

A. INTRODUCTION

This submission relates to the public exhibition of the Canopy Estate Environmental Impact Statement (EIS). Council's previous submission (dated 21 October 2024) on the scoping report document highlighted critical issues including, requirements for realignment of the water course located to The Horsley Drive frontage, vehicle servicing and other general development matters, which have not been adequately addressed in the EIS.

Critically the 1st order watercourse is proposed to be channelised which is contrary to the NSW Department of Climate Change Energy Environment and Water (DCCEEW) recommendation to naturalise the watercourse to the confluence of Eastern Creek and results in an interim solution which is not supported.

Given the fragmented site development outcomes associated with the SSDA, the Applicant should provide further information in regard to how all of the E4 zoned land within the Keyhole Lands that is not part of the current SSDA, will have certainty around access to infrastructure required to service the Estate. Most relevantly, this includes ensuring heavy vehicle access for a number of lots to the internal estate road, including any interim and/or ultimate site access arrangements, that needs to be considered further prior to determination of the application.

The above issue is also relevant to Frasers proposal to construct a waste treatment plant on a dedicated sewerage lot to service the sites associated with the SSDA. This approach was not previously considered by Council during assessment of the planning proposal as it was understood that connection to existing Sydney Water infrastructure was possible. Several critical issues regarding the proposed onsite waste servicing have not been addressed by the EIS documentation including:

- Whether the capacity of the waste treatment plant is adequate in servicing all industrial lots in the Keyhole lands, noting that if Frasers is successful in acquiring the remaining lots, further connections to the treatment plant would be required.

- A lack of detail provided in the EIS documentation means that Council is unclear in its role in regulating the plant during its operation noting that monitoring, clean up and compliance action associated with the proposed waste plant is not within Council's current capabilities.

- It is unclear whether the proposed development area can be serviced by the proposed wastewater treatment facility.

- The relevant technical reports associated with a waste-water treatment plants construction and operation have not been provided to allow a full assessment of the treatment plants impact. This must be provided to ensure compliance with SEAR's which require "*that satisfactory arrangements for wastewater services have been made*".

In addition to the issues raised below in section B, **Attachment A** to this submission contains detailed comments on technical matters relating to the EIS including stormwater management, infrastructure, environmental and traffic matters raised by relevant Council sections.

B. SUBMISSION

I. **Proposed On-site Sewage Treatment System -** The Applicant has not adequately addressed how sewage/wastewater generated by the proposed development will be managed, treated and disposed of on site. Within the EIS there is reference to the construction of an on-site sewerage treatment plant, with a dedicated sewage treatment lot located on the western boundary within the proposed Lot 2. The EIS states to facilitate the installation of an onsite treatment plant an approval under Section 68 of the Local Government Act 1993 is required.

   Council does not agree with this approach and advocates the importance of having the proposed on-site sewerage treatment plant assessed prior to determination of the SSD. This is to ensure adequate assessment at the planning stage, to determine whether the on-site sewage treatment plant has the capability to treat sewage/wastewater generated by the proposal and dispose of treated wastewater in a compliant manner on the site.

   The EIS contains a site plan that displays a sewage treatment plant location. However, there is no information provided on where treated effluent will be disposed of on-site nor is there information and specifications provided on the type of treatment plant to be constructed, including the effluent quality output it will produce.

   Eastern Creek is located west of the proposal therefore it is critical that the Applicant provide additional information to demonstrate that there will be no discharge/runoff to the Eastern Creek and that all wastewaters are capable of being disposed of within the boundaries of the site.

   This should include situations where there has been significant rainfall events and/or flooding leading to the immediate catchment/precinct being highly saturated and creating the potential for increased surface runoff from a site as well movement of pollutants through the groundwater.

The proposed stormwater strategy would collect and harvest rainwater where rainwater will also be used for toilet flushing and irrigation. The treated wastewater from the proposed sewage treatment plant is also proposed to be used in the same manner, therefore reducing the capacity for on-site reuse and raises concerns on the capability of the site being able to reuse all treated wastewater.

Council requests that all the information relating to the on-site sewerage treatment plant and irrigation areas be submitted and assessed under the proposed SSDA. An on-site wastewater report prepared by a qualified environmental consultant/engineer shall be submitted for the on-site wastewater treatment system including disposal. All details and specification on the sewage treatment plant and all fail-safe contingency designs shall be demonstrated.

In addition, the proposed site is zoned E4 therefore consideration and assessment should be made on whether the proposed sewage treatment plant can treat industrial levels of sewage/wastewater, including potential contaminants associated with industrial uses.

The report shall demonstrate where and how effluent will be treated and disposed of onsite which shall include a site plan that indicates all areas for site disposal. The report shall demonstrate compliance with all legislative documents and Council's On-site Sewage Management Strategy, 2002.

Confirmation shall also be sought on whether Council would be the Appropriate Regulatory Authority (ARA) for the proposed on-site sewage treatment plant and not any other government agency or authority.

II. **Watercourse Realignment –** The EIS report shows the realignment of the 1st order stream watercourse within the Horsley Drive frontage of the site. Council received formal advice from the Department of Climate Change Energy, the Environment and Water (DCCEEW) – (Water Licensing and Approvals division) that the watercourse must:

- Remain naturalised and meandering.
- Not be channelized or piped at any location including inter-allotment drainage lines.
- Be resolved to the confluence of Eastern Creek including through properties not owned by the developer (no partial solutions will be accepted)
- A stream erosion index of not greater than 2.0 conveyed from the watercourse into Eastern Creek in a post development scenario, which is in line with Fairfield City Council's Stormwater Management Policy.

The above matters were subsequently incorporated into Section.6 – Environmental Management of the Site Specific DCP applying to the Canopy Estate. The EIS indicates that the proposed watercourse is realigned into a meandering channel in which the sites stormwater flows are conveyed from On Site Detention (OSD) tanks and a swale on the eastern side of the Estate Road. The watercourse then discharges from the site's eastern boundary into the existing alignment of the watercourse on the adjoining lot at 1677 The Horsley Drive.

The proposal to pipe, realign, and channelise the existing watercourse on the site is inconsistent with actions and principles of the vision for the Western Parkland City District Plan and the Site Specific DCP, that requires development to consider ecological sustainability, landscape-led design, and the preservation of natural assets. These actions and principles are compromised by the proposed interventions.

The site is also located within the Western Sydney Parklands and surrounded by an urban farm precinct, reinforcing the need for a context-sensitive and ecologically sensitive development. Rather than engineering the waterways into rigid, artificial channels, the proposal should embrace and enhance their natural character. The two primary waterways on the site should be protected and rehabilitated to support natural processes such as flooding, erosion, and sediment deposition.

The Applicant should reconsider the current approach and adopt water-sensitive urban design (WSUD) principles that support:

- Preservation and restoration of riparian corridors
- Integration of green infrastructure
- Passive recreation opportunities that connect people to nature
- Floodplain management that works with, not against, natural systems

Any proposal that involves piping, truncating, or artificially redirecting the waterway falls short of this requirement and risks regulatory non-compliance. To align with DCCEEW's expectations, the broader Western Parkland City vision and provisions of the Site Specific DCP (SSDCP) the proposal must:

- ensure the full connectivity of the watercourse to Eastern Creek
- avoid engineered shortcuts or fragmented channel designs
- support natural flow regimes and ecological linkages across the landscape

The proposed solution is contrary to the DCCEEW requirements which state that no interim solutions are accepted, and the channel must be naturalised to the confluence of Eastern Creek. Council recommends the DPH&I further consult with the DCCEEW Water licencing Division to review the acceptability of the engineering solution proposed by Frasers, noting that Council supports the DCCEEW position of naturalisation and provision of a complete solution.

III. **Fragmented Development** –The peripheral lots of the Keyhole Lands are not proposed to be developed by Frasers under the SSDA, critically 211- 217 Chandos Road and 121 to 135 Chandos Road and 1681 ,1677, 1627 and 1617 The Horsley Drive.

a. **1681 ,1677, 1627 and 1617 The Horsley Drive** – The concept plan shows that 1681 and 1677 The Horsley Drive will not be provided vehicular access (including capacity for this access) to the proposed Estate Road & The Horsley Drive intersection as required by Section. 2 – Development Controls of the SSDCP.

It is noted that this outcome is directly attributable to the proposed realigned and channelised water course on this part of the site as referred to above. In addition, vehicular access for 1627 and 1617 The Horsley Drive to the Estate Rd & The Horsley Drive intersection are blocked by a proposed temporary swale on the eastern side of the Estate Rd.

Should these lots be developed in the future for industrial purposes it is unclear how they would gain access to the proposed signalised intersection. As stated under Section 3 – Transport Access & Parking of the SSDCP, separate driveway access onto The Horsley Drive for heavy vehicle access is not permitted, reflecting advice provided by TfNSW under consideration of the rezoning of the estate given the proximity to the proposed new signalized intersection.

b. **121 to 135 Chandos Road and 211 to 217 Chandos Road –** Similarly, vehicular access from 211 – 217 and 121 to 135 Chandos Road to the internal estate road network and local road network has not taken into account under the proposal. Given no heavy vehicle access is currently available to Chandos Road, it is unclear how industrial development on these sites would be feasible.

   Heavy vehicle access would only be permitted in the event Chandos Road is upgraded along its full length to facilitate heavy vehicle movement including west to the Chandos Road M7 overpass and east to Ferrers Road.

   Until the above occurs, the Applicant should provide confirmation that all of the industrial land within the Keyhole Lands will have appropriate access to the internal service roads and utility services. This may include but is not limited to details of any easements required, technical drawings and a concept staging plan for the whole of the site and must include a requirement for agency/utility provider approval.

   It is noted that as part of the rezoning application and SSDCP a site masterplan was prepared that included preliminary information in relation to site access and servicing arrangements for the whole of the site including land in Frasers ownership and other landowners.

IV. **Detailed Site Investigation and Remedial Action Plan Reports -** The submitted Detailed Site Investigation (DSI) appears to not contain all information required as per Table 2.3 of the" *NSW EPA Consultants Reporting on Contaminated Land, Contaminated Land Guidelines*". For example, some of following information was not found within the report:
   - There is no information within the report detailing the number of soil samples collected from each lot and if this complies with the NSW EPA Sampling Design guidelines.
   - Soil sampling methodology,
   - Data quality indicators,
   - Borehole logs undertaken.
   - Full comprehensive discussion on all data gaps presents as a result of the investigations.

Due to the land size of the proposed development, it is strongly recommended that the consenting authority direct the Applicant to engage a NSW EPA accredited site auditor to review the Detailed Site Investigation and Remedial Action Plan submitted and provide a site auditor statement.

This will provide certainty that the site has been thoroughly investigated, remediated and that the site can be made suitable for the proposed industrial land use. It is recommended that a NSW EPA-accredited Site Auditor be engaged throughout the entire duration of works to ensure that the remediation works are appropriately undertaken and managed.

Engaging a site auditor can also provide greater certainty about the information on which the planning authority is basing its decision, particularly where sensitive uses are proposed on land that may be potentially contaminated. A statement about the suitability of the site is required.

It should be noted that the DSI also contains information and findings from past assessment undertaken dating back to the year 2019. The validity on whether the information used from a 2019 document for the current DSI will also need to be assessed and determined by the planning authority.

In accordance with State Environmental Planning Policy (Resilience and Hazards) 2021 the consent authority cannot consent to the development of the land unless it has considered whether the land is contaminated, and if the land is contaminated, it must be satisfied that the land is suitable in its contaminated state (or would be suitable after remediation) for the proposed development.

A Site auditor can assist a consent authority by commenting on or verifying information provided by a proponent in relation to site assessment, remediation, or validation—such as whether they have adhered to relevant standards, procedures, and guidelines.

Council recommends the applicant engage a NSW EPA-accredited Site Auditor throughout the duration of works to ensure that the contamination remediation works are appropriately managed and that the site is remediated in accordance with an approved Remedial Action Plan.

V. **Clause 4.6 variation to development standards** – It is noted that the FSR sought for the Canopy Estate is non-compliant with the 0.55:1 FSR. The Applicant is seeking a variation (0.59:1) and a clause 4.6 variation to development standards has been provided by the Applicant.

It is noted that the FSR for the site was set to reflect an appropriate vehicle trip generation by limiting industrial floor space for the site. Council notes that since gazettal of the Planning Proposal, "*A Guide to Traffic Generating Development 2024*" has been released with new trip generation figures for warehouse distribution which are substantially lower than was considered under the Planning Proposal which was provided using the now outdated guide.

The EIS demonstrates that with an amended FSR of 0.6:1 future development will still be far below the trip generation set by TfNSW under the Planning Proposal for the site when using the new trip generation rates. Therefore, Council does not raise any objection with the amended FSR.

VI. **Section 7.12 Contributions –** The subject site is within the Western Catchment of the Fairfield City Local Infrastructure Contributions Plan 2023. This Plan identifies that Section 7.12 Indirect Contributions (i.e. 1% of the cost of works) will apply to the works on the site. Council officers request a cost report be prepared by a suitably qualified quantity surveyor to provide a Capital Investment Value.

Please note that should construction be substantially delayed, from the date of the cost report a revised cost report will be required to be provided prior to payment of contributions. Contributions are required to be paid in full by the Applicant prior to the issuing of a construction certificate**.**

Given the large scale of the site, it is expected that there would be some form of staging in the provision of future warehouse/logistics development on the site. To ensure transparency, reduce delays for Council and the Applicant and reduce issues at the time of payment of contributions, should the development be proposed to be staged, then it is requested that the contributions be staged accordingly.

VII. **Local Employment** – Council strongly encourages the prioritisation of local labour throughout both the construction and operational phases. To maximise community benefit, we recommend the development of a targeted Local employment strategy, co-designed with Council and local employment agencies. This strategy should align with the Social Impact Assesments recommendation to incorporate social procurement principles, such as the inclusion of trainees and underrepresented groups (e.g. women in construction). Additionally, partnerships with TAFE Wetherill Park and local schools could further strengthen pathways into employment.

VIII. **Disability Access** - The current SIA does not explicitly address accessibility for employees, contractors, or visitors with disability. Council recommends that a disability inclusion plan be embedded as a core consideration in all future planning and assessment processes. Council encourages the Applicant to articulate a clear commitment to universal access and inclusive design, ensuring equitable participation for people with disability. This aligns with Council's vision for a more inclusive Fairfield City, as outlined in the Disability Action Plan 2022–2026, which prioritises:

- Inclusive attitudes and behaviours
- Liveable communities
- Meaningful employment
- Equitable access to mainstream services

IX. **Local Health Impacts** - The South Western Sydney Local Health District (SWSLHD) Healthy Places team, part of Population Health, plays a vital role in shaping healthier communities through urban planning, placemaking, and transport initiatives. Council recommends that Healthy Places be considered as a key stakeholder in the assessment of social and health outcomes associated with this development. Their expertise in strategic planning, advocacy, and partnership-building can provide valuable insights to enhance community wellbeing.

C. CONCLUSION AND RECOMMENDATION

The current proposal represents fragmented development of the site that is incomplete in considering a number of site development issues associated with the SSDCP applying to the Estate, including wastewater servicing, water course realignment, vehicle servicing and other general planning considerations.

Should the DPH&I approve the proposed development in its current form, it would result in lot isolation particularly those lots on the western and eastern edge of the site facing Chandos Road and the Horsley Drive.

Council recommends the DPH&I consider the suitability of the current proposal and advice from relevant state agencies and utility providers (including Sydney Water) regarding requirements for those lots not incorporated within SSDA 76397489, and whether the development in its current form would lead to sterilisation for industrial development on the lots not included in the proposal.

In addition, DPH&I should seek advice from the DCCEEW – Water Licencing regarding requirements and acceptable solutions for realignment of the watercourse fronting The Horsley Drive, noting that the proposed channelisation of the watercourse is inconsistent with relevant provisions of the SSDCP and advice provided by the DCCEEW under rezoning of the land for general industrial purposes.

In addition to the above the Applicant should amend relevant aspects of the proposal and technical reports to address the stormwater management, waste water servicing infrastructure, environmental and traffic matters as referred to in Attachment A to this submission.

Should you have any further questions you wish to raise in relation to this matter please do not hesitate to contact me on 9725 0215.

Patrick Warren
SENIOR STRATEGIC LANDUSE PLANNER

ATTACHMENT - A – Detailed technical advice and requirements

A. Catchment Planning Comments

I. **Box Culvert Design for Fire Truck Crossing -** The proposal includes box culverts crossing the transition pools at the 90-degree angle within the proposed channel, intended to support fire truck access. Given the critical nature of this infrastructure and its potential impact on both waterway function and emergency access, detailed design documentation must be provided to Council for review. Specifically, the following items must be addressed:

- **Hydraulic Losses and Turbulence Management**
  - Provide hydraulic modelling outputs that quantify inlet and outlet losses, including the energy loss coefficients used.
  - Detail how the design mitigates turbulence and eddies at culvert entrances and exits, including any structural features such as wingwalls, aprons, or energy dissipation measures.
  - Include documentation of scour protection measures to prevent erosion and maintain structural integrity.

- **Design Flood Return Period**
  - Confirm the design flood return period used (e.g., 1% AEP) and demonstrate that the culvert design supports emergency vehicle access under extreme conditions
  - Clearly state any assumptions regarding tailwater conditions or blockage risk.

This information is essential to ensure the culvert design aligns with best practice water-sensitive urban design, flood resilience, and emergency access standards. Without this documentation, the proposal cannot be adequately assessed for safety, functionality, or long-term performance

II. **Proposed Channel Design -** The entire waterway corridor, not just the low-flow path, should be designed to meander organically across the landscape, reflecting natural geomorphic processes and enhancing ecological function. The use of vertical retaining walls is inappropriate in this context. Instead, the channel should feature battered, vegetated slopes that:

- support riparian vegetation and habitat connectivity
- allow for natural processes like erosion, deposition, and overbank flooding
- improve visual amenity and align with the rural and parkland character of the site

Council strongly recommends that the design be revised to:

- extend the meandering form across the full width of the waterway corridor
- eliminate vertical retaining walls in favor of natural bank treatments
- integrate water-sensitive urban design principles that prioritize ecological resilience and landscape-led planning

III. **Visual Impact of Proposed Channel Adjacent to Horsley Drive -** The proposed channel, situated within the 25-metre setback from The Horsley Drive, is designed to sit approximately 2 metres below the existing site level, enclosed by retaining walls on all sides. This configuration is highly problematic from both a visual and landscape integration perspective.

Such a design:

- Creates a sunken, engineered corridor that is visually harsh and disconnected from the surrounding parkland and rural character
- Fails to deliver the desired visual outcomes for a prominent frontage along The Horsley Drive
- Undermines the potential for a landscape-led interface that contributes positively to the public realm.

To align with the Western Parkland City vision and deliver a more sympathetic outcome, the channel design must be revised to:

- Feature battered, vegetated slopes instead of vertical retaining walls
- Integrate naturalized waterway forms that reflect the site's topography and ecological context
- Provide visual permeability and landscape continuity from Horsley Drive into the site.

This corridor presents a key opportunity to showcase landscape-sensitive design and ecological stewardship. A heavily engineered channel is not an acceptable outcome for such a prominent and sensitive location.

IV. **Unacceptable Channel Geometry: 90-Degree Bend -** it is unacceptable that one of the proposed channels includes a 90-degree angle. Such abrupt geometry is inconsistent with natural waterway design and poses significant risks to hydraulic performance, ecological function, and long-term stability noting that sharp bends of this nature:

- Create turbulence and energy loss, increasing the risk of erosion and sediment buildup
- Disrupt natural flow regimes, impeding aquatic habitat connectivity
- Require reinforced infrastructure (e.g., high retaining walls, scour protection), which further disconnects the channel from its landscape context

To align with best practice water-sensitive urban design and the Western Parkland City vision, the channel must be:

- Gently meandering across the full corridor width
- Designed with battered, vegetated slopes rather than vertical walls
- Resolved naturally to the confluence with Eastern Creek, without artificial truncation or abrupt directional changes

Council recommends removal of the 90-degree bend and a redesign that reflects natural geomorphic processes and landscape-led planning principles.

V. **Clarification of Overland Flow Weir Design and Hydrology -** The overland flow weir shown in Drawing C014052.04-SSDA502 does not appear to match the existing discharge point, and the flow volumes and return period design need clarification through hydrological modelling.
This information is essential to verify that the proposed overflow path is hydraulically functional, environmentally responsible, and consistent with expectations for flood management and water-sensitive urban design.

VI. **Energy Dissipation -** The Civil Report references energy dissipation at the outlet, but it does not clearly identify the specific locations or provide detailed design drawings or specifications. This information must be clarified.

VII. **Flooding - Inconsistent Boundary Conditions in Flood Modelling -** Figure 8.2 presents pre-development 1% AEP flood depths from Catchment Simulation Solutions, while Figure 8.3 shows similar data from Costin Roe Consulting (CRC). It appears the CRC model was truncated with an arbitrary boundary condition near the flowpath entering Eastern Creek at Redmayne Road. This truncation may compromise the accuracy of the model in representing existing conditions and afflux resulting from the proposed development. A consistent and complete boundary condition is essential to ensure reliable flood impact assessment.

VIII. **Inclusion of Lots 81A and 81B DP348110 in Flood Modelling -** The vacant land east of the proposed access road from The Horsley Drive – specifically Lots 81A and 81B DP348110, is affected by flooding under the developed scenario. These lots were part of the original Planning Proposal, indicating future development intent. The current modelling shows these lots providing detention of flows, which must be accounted for in the fully developed scenario. Incorporating these lots ensures:

- A holistic and integrated flood management strategy
- Accurate representation of impervious surfaces and drainage patterns
- Alignment with best practice floodplain management and resilient urban planning

IX. **Freeboard Requirements -** The Civil Engineering Report suggests a 0.3m freeboard to building floor levels for overland flow paths. However, the Fairfield Citywide Development Control Plan (2024) mandates a 0.5m freeboard above the 1% AEP flood level. The proposal must be revised to comply with this standard to ensure adequate flood protection.

X. **Afflux Impact on Neighboring Properties -** Council policy defines negligible flood impact as no more than 0.01m afflux for the 1% AEP event. The Civil Engineering Report indicates an afflux of 0.02m, which exceeds this threshold and is therefore not acceptable. Further refinement of the flood modelling is required during detailed design to reduce this impact to acceptable levels.

XI. **Hawkesbury-Nepean High Risk Catchment Considerations -** The Hawkesbury–Nepean catchment has been identified as a high-risk catchment as part of the NSW Flood Inquiry 2022, which demands heightened scrutiny and robust flood mitigation measures. All modelling and design decisions should reflect the complex hydrology and flood risk profile of this region, including:

- Cumulative impacts of upstream and downstream development
- Emergency access and evacuation planning
- Long-term resilience to climate change and extreme events

XII. **On Site Detention -** As the site is located within the Rural Zone as shown in Council's Stormwater Management Policy 2017, the maximum Permissible Site Discharge (PSD) for the site is 78 l/s/ha. This has been included in the report.

XIII. **Stream Erosion Index -** The proposal includes limiting post-development stream forming flows and states that the Stream Erosion Index (SEI) will be 1.86, which is below the maximum target of 2.0, in line with the Western Sydney Engineering Design Manual 2020.

XIV. **Stormwater Asset Maintenance and Council Dedication -** The proposal includes bio-retention systems and gross pollutant traps (GPTs) intended for dedication to Council. It is noted that pit inserts are not accepted by Council as a primary stormwater treatment measure, and preference is given to larger GPTs with proven pollutant capture efficiency. As these assets are to be transferred to Council ownership, their location, selection, design, maintenance, and renewal must be carefully considered and agreed upon with Council prior to approval. Specifically:

- GPTs must be designed for safe and practical access, with sufficient clearance for vacuum trucks and maintenance crews
- Bio-retention systems must include vegetation management plans, sediment removal protocols, and long-term renewal strategies.
- A detailed maintenance schedule and asset handover package must be provided to Council, including inspection frequencies, performance benchmarks, and lifecycle cost estimates.

These requirements are essential to ensure the long-term functionality of the stormwater treatment assets and to avoid future maintenance liabilities for Council.

XV. **Stormwater Design Methodology and Rainfall Data Selection -** The Civil Report states that overall site runoff and stormwater management will be designed in accordance with the Institution of Engineers, Australia publication *Australian Rainfall and Runoff* (1987 Edition), Volumes 1 and 2 (AR&R). However, it also notes that rainfall data will be sourced from ARR2019.

This approach is inconsistent with recent findings from Fairfield City Council's Draft Prospect Creek and Georges River Flood Study Update, which included a Flood Frequency Analysis (FFA).

The FFA revealed that Fairfield's observed rainfall patterns more closely align with ARR1987 than ARR2019. Therefore, the final draft model used IFD data from ARR1987 and the temporal distribution of rainfall from ARR2019. Using ARR2019 rainfall data may therefore misrepresent storm intensities and durations for this locality.

B. City Assets - Engineering Comments

I. The Redmayne Road section at the intersection with the roundabout shall be designed to accommodate heavy vehicle turning movements, consistent with the geometric and pavement design standards applied to Estate Road. Particular attention shall be given to:

- Heavy vehicle swept paths, ensuring sufficient pavement width and structural capacity for turning movements.
- Pavement design and treatment, including provision for deep lift asphalt within the circulating carriageway and approach legs of the roundabout, to enhance durability under high load repetitions.
- Transition details, ensuring smooth tie-ins between new and existing pavement surfaces

II. The pavement design for the estate road should consider:

- Future aallowance for High Mass Limit (HML) heavy vehicles, ensuring the pavement structure and geometry are capable of accommodating such vehicles in the long term.
- A mminimum pavement design traffic loading of 1×10^7 ESA (Equivalent Standard Axles), or higher, subject to confirmation through detailed traffic impact assessment and pavement design studies.

III. All retaining walls shall:

- be located entirely within the boundary of the proposed development and will be maintained by the respective future lot owners.
- Road reserve boundaries shall be clearly shown on both sides of each cross-section to clearly identify the location of retaining walls and other features in relation to the property boundaries.

IV. For embankment stability Council requires:

- That all cut and fill batters shall not exceed a maximum slope of 1(V):4(H), in accordance with the requirements of Council's Development Control Plan (DCP) to ensure long-term stability, ease of maintenance, and visual integration with the surrounding environment.

V. Subsoil Drainage System

- Provision of a subsoil drainage system shall be considered along the kerb and gutter in locations where there is no proposed stormwater drainage pipeline. The intent is to prevent pavement moisture ingress and improve subgrade performance. An example of the required subsoil drainage locations is indicated on the figure below with a red dashed line.

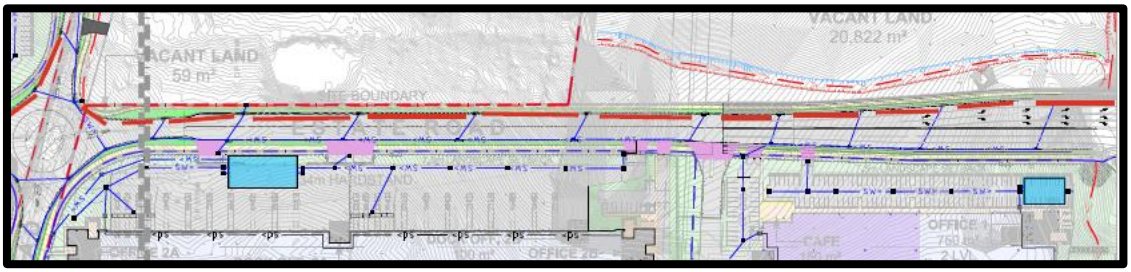

Figure 1 – Example of Subsoil Drainage System

VI. Road Transition Details:

- The detailed drawings for both end transitions connecting to existing roads shall be provided for further detailed review
- It is recommended that the footpath and kerb alignments remain unchanged to maintain continuity and avoid unnecessary reconstruction
- The asphalt pavement should be transitioned between the new and existing pavement surfaces, with kerb and gutter ends flushed neatly to the existing pavement to ensure smooth tie-ins and proper drainage continuity.

VII. Vacant Land - If it is proposed to utilize the 3 lots shown in figure 2 below the following design provisions shall be incorporated for their relevant section of Redmayne Road

Figure 2 – Vacant Land

- The pavement width shall be consistent with that of the Estate Road, ensuring adequate capacity for industrial traffic.
- The pavement design shall be equivalent in structural capacity to the Estate Road, suitable for heavy vehicle loading associated with industrial use.

- Two driveways shall be provided, each incorporating a trench grate or pipe culvert to cross the proposed swale drain, ensuring proper drainage and access.
- The Swale on South-East corner of vacant lot is to be shown clearly. How it will be diverted to the stormwater pit until future stages is developed?

VIII. Onsite Detention and stormwater infrastructure

- All OSD tanks must be located entirely within private property boundaries, ensuring no encroachment into Council's land or road reserve.
- Designers are to verify the setback and structural integrity of OSD installations to comply with this requirement prior to final approval.
- Council will not accept ownership or maintenance responsibility for any underground on-site detention (OSD) tank for this development.
- Within the Council Road Reserve, the stormwater drainage pipes shall have a minimum diameter of 375 mm and shall be constructed using precast reinforced concrete pipes (RCP) in accordance with Council's standards and relevant Australian Standards and for clarity Road reserve boundaries shall be shown on both sides of cross-sections.
- The stormwater pipe system with the culvert outlet to avoid entering private property and connect directly to the creek as Stopping short of the creek would lead to excess overflow towards the private property and not acceptable by the respective owner of the land See figure 3 below.
- Stormwater pits are to be a minimum 1 meter away from driveways, so heavy vehicles do not damage it during entry/exit.

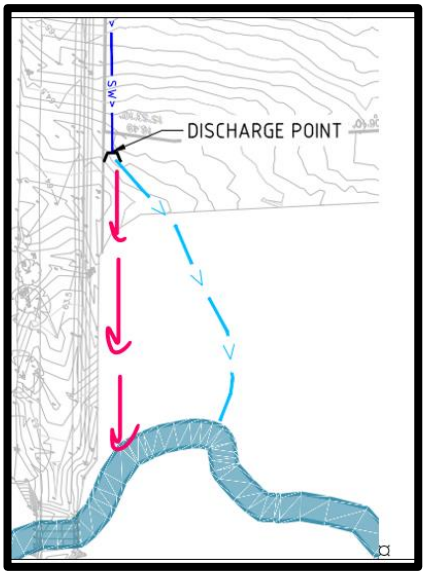

Figure 3 – Discharge Point

IX. Footpath

- Provide pram/kerb ramp crossings at roundabout intersection at Redmayne Road.

X. Stormwater Drainage Details Sheet 3

- Concrete encasement section – provide 2x 100mm Ag pipe along concrete encasement.

XI. Tree Removals or New Trees

- Retained trees or new trees are to have a root barrier system (e.g. structural soil, StrataCell) implemented to reduce future maintenance costs for the footpath.
- Council's Tree Preservation officer shall be consulted in regard to any removal of trees on Council's reserve and its Council's requirements.

XII. Asset Hand Over

- Easement responsibility - Provide details of Council's burden and benefited easement and its maintenance responsibility, if any. If the drainage system is located inaccessible to machineries, provide detail maintenance plan on how stormwater system can be maintained.
- Land Transfers to Council - Is there any land that is proposed to be handed over to Council from the development (e.g. land dedicated to Council).
- Provide list of proposed green assets that are to be maintained by Council, for example trees, planter boxes.
- Life cycle cost analysis -Whole life cycle cost (capital and maintenance costs) to be provided to Council for the operation of the proposed new assets over the life of the asset. Council can provide the useful life of the proposed new assets for life cycle analysis.

C. Public Environment and Health Comments

I. Operational Noise and Vibration Impact Assessment – The following is required to be addressed by the consultant:

- The consultant has displayed the below amenity noise levels for different residential receivers (see table 1). It is unclear why there is a difference in the amenity noise level between residential receivers in particular receiver 4. The consultant will need to demonstrate how the amenity noise level for each receiver was established.
- The amenity level for all residential receivers would be the same as they are all located within a rural area. Therefore, the amenity noise level for a rural area shall be adopted for receive 4. This change shall also be reflected in the project noise trigger levels for the site.

Time period	Amenity criteria dB			
	Receivers 1-3 + 5	Receiver 4	Receivers A, B and D	Receiver C
Day	48 $L_{Aeq(15\ minute)}$	57 $L_{Aeq(15\ minute)}$	68 $L_{Aeq(15\ minute)}$	73 $L_{Aeq(15\ minute)}$
Evening	43 $L_{Aeq(15\ minute)}$	54 $L_{Aeq(15\ minute)}$	68 $L_{Aeq(15\ minute)}$	73 $L_{Aeq(15\ minute)}$
Night	38 $L_{Aeq(15\ minute)}$	53 $L_{Aeq(15\ minute)}$	68 $L_{Aeq(15\ minute)}$	73 $L_{Aeq(15\ minute)}$

Table 1 - Established Proposal Amenity Noise Level

- The acoustic consultant has not identified all the nearest residential receivers to the proposed development. The acoustic consultant shall identify all the nearest residential receiver and assess the noise impact of the proposal. See in Figure 4 below, in particular to the south of the site circled in red show residential receivers have not been identified.

  The consultant shall demonstrate that all residential receivers have been identified in the assessment. The consultant will need to demonstrate that the noise assessment has considered the impulsiveness or intermittent factors associated with air brake release on trucks and heavy vehicles as part of the modifying factors in Section 4.1.1.3 of the report.

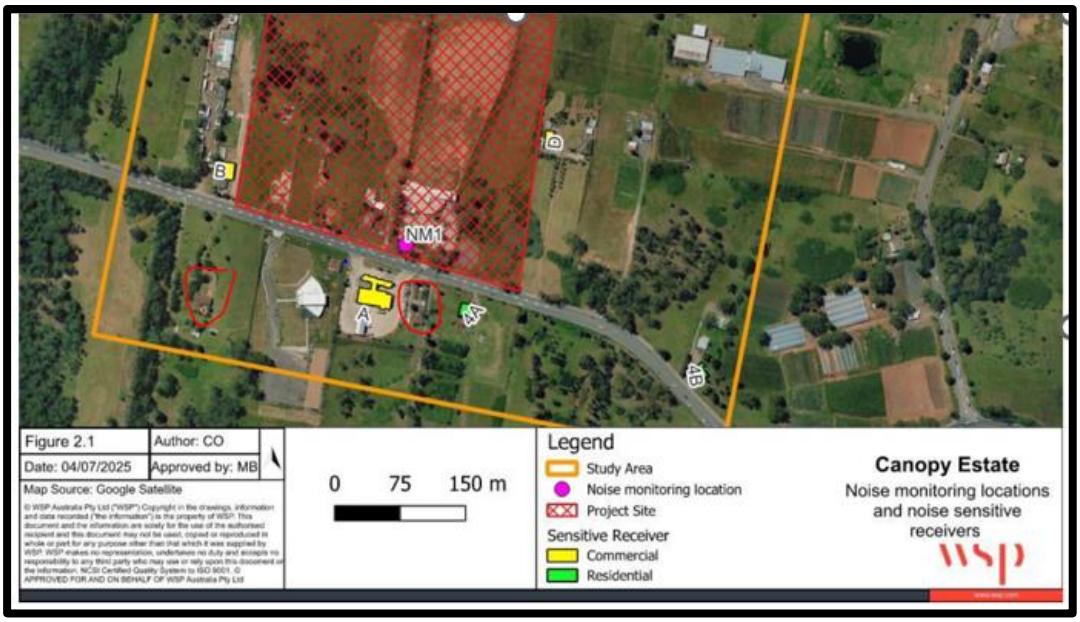

Figure 4 – Noise Monitoring Locations and Noise Sensitive 1662 the Horsley drive and 1642-1648 the Horsley drove, Horsley park.

- The consultant shall undertake a preliminary acoustic assessment on likely mechanical ventilation plant to be operated a part of the proposal, to demonstrate compliance with project noise trigger levels while also assessing the accumulative noise impact with other noise sources. This should be undertaken to assess the acoustic impact in advance which can be done so by using the noise levels from typical mechanical plant.

- Further to the above, due to the size of proposed development (which includes the earth works, construction works and operational noise) and its immediate close proximity to residential receivers, it is recommended that the planning authority engage the services of a qualified and accredited acoustic consultant to peer review the below documents:

  - Operational Noise and Vibration Impact Assessment prepared by WSP, dated 4 July 2025, PS224553-syd-aco-Canopy, Rev B.
  - Construction Noise and Vibration Management Plan prepared by Acoustic works, dated 17 March 2025, Reference 1024056 R02C Keyhole Horsley Park CNVMP.doc.

The peer review shall validate the contents of both reports, to ensure a thorough assessment has been undertaken on both noise and vibration, to ensure the correct project noise rigger levels have been adopted and that any underestimated noise and vibration has been assessed and appropriately mitigated to comply. This is to ensure the immediate noise receiver will not be negatively impacted from any noise and vibration emissions as a result of the proposal.

II. **Air Quality Impact Assessment (AQIA) –** The submitted Air quality Impact report states that "no odorous activities are anticipated, and correspondingly, odor has not been considered further as part of this AQIA".

The consultant has not considered or assessed any odors associated with the proposed on-site sewage treatment plant. This will need to be demonstrated by the consultant.

D. Traffic Engineering Comments

I. As the state significant development proposal has potential impacts on the adjoining state road network and the Southern Link Road project, the proposal shall be referred to Transport for NSW for review and comments. In addition, the installation of signalised intersection around the site and the proposed road widening works on The Horsley Drive (state road) requires support and approval from TfNSW. The applicant shall provide Council a written approval from TfNSW as part of the approval process.

II. The applicant needs to demonstrate that the proposed intersections, road alignment, traffic signals, roundabout devices comply with Austroads Guidelines, the relevant Australian Standards, as well as the TfNSW and Council requirements. In addition, a road safety audit shall be carried out in relation to this matter;

III. The applicant shall assess clarify what development and road works are proposed (what development works, road construction works, traffic management devices e.g. traffic signals, roundabout) i.e. what works are to be included under Stage 2 of the development proposal.

IV. In the applicant's Transport Assessment report for the Canopy Estate in Horsley Park, the applicant's SIDRA modelling assessment focuses on SIDRA modelling assessment for the year 2036 case / scenario. The applicant's SIDRA modelling assessment shall include an analysis of the traffic impacts of the development proposal on the surrounding road network at different stages, once the proposed works for Stage 2 are clarified. In addition, the existing scenario is missing from the applicant's Transport Assessment report; and

V. The applicant's swept path analysis shall include the largest vehicle can satisfactorily travel to and from the site via the proposed routes / roads by swept path analysis. In addition, the traffic, pavement and structural impacts of any heavy vehicle movements along Chandos Road (5-tonne load limit street) shall be thoroughly assessed.

VI. The following conditions of consent should be applied by the DPH&I should the SSD be approved**:**

VII. The internal site layout and all roads (Estate Roads) associated with the development site shall be designed and approved to the satisfaction of Council's Subdivision Team.

VIII. Prior to the commencement of operation of the development, the Applicant must prepare an Operational Traffic Management Plan (OTMP) for the development. The OTMP shall:

- be prepared by a suitably qualified person(s);
- be prepared in consultation with Council;
- include an hourly breakdown of the types of heavy vehicles (26m B-Double vehicles, 20m Articulated Vehicles, 12.5m HRVs, 8.8m MRVs and so on) and their frequency accessing the site on hourly basis throughout the day; and
- include an Operational Driver Code of Conduct.

IX. Prior to the commencement of construction of the Estate Road or implementing traffic management measures at/near the development site, the Applicant shall undertake a Road Safety Audit to the satisfaction of the relevant roads authority. The Road Safety Audit shall.

- be prepared by Road Safety Auditor(s);
- be prepared in consultation with Council;
- demonstrate the estate road capacity is adequate for the intended design vehicles; and
- Identifies and recommends corrective actions to eliminate or mitigate the identified risks.

X. Prior to the issue of a Construction Certificate, a Construction Traffic Management Plan (CTMP) prepared by a suitably qualified person detailing construction vehicle routes, number of trucks, hours of operation, access arrangements and traffic control shall be approved by Transport for NSW and Council.

E. Environmental Comments

I. **Nest box Management Plan –** A formal nest box management plan including locations, installation and timing, monitoring and maintenance and stakeholder agreements is to be provided to Council for review and acceptance.

II. **Updated Landscape Plan –** A revised landscape plan is to be provided that aligns with the Fairfield Council Biodiversity Strategy 2022, excludes invasive/hybridising species, uses local provenance species from PCT 3320 and 4025 and includes a Vegetation Management Plan (VMP) for ongoing maintenance.

III. **Biosecurity Management Plan –** A Biodiversity Management Plan is to be provided addressing pathogen containment, weed control, vehicle machinery and hygiene protocols. The plan must reference vehicle and machinery clean down procedures (NSW DPI), NSW Weed Control Handbook (8th ed) and Greater Sydney Regional Strategic Weed Management Plan 2023 – 2027.

XVI. **BDAR Limitation –** Several critical components, such as road upgrades, watercourse realignment, and future development stages have been deferred or excluded from the Biodiversity Development Assessment Report (BDAR), despite being essential to the overall function and footprint of the development. A revised BDAR must be provided that considers all stages of development.

XVII. **Loss of Breeding Habitat –** The BDAR says retained vegetation in adjacent lots provides higher quality habitat and will not be reduced by the proposed works, the vegetation in the adjacent lots is still zoned E4 and may be potentially removed in later stages of the Estate's development. Therefore, adjacent vegetation should not be considered higher quality habitat.

It is recommended the Applicant have an agreement with neighbouring lots zoned E4 specifying the agreed location of the hollows/boxes as well as monitoring and maintenance programs up to 10 years after issuance of the final Occupation Certificate (OC) for the site.