Appendix A – SEARs table

Appendix A – SEARs table

Table A 1 lists the general SEARs and where they have been addressed in the EIS.

Table A 1: General SEARs provided by DPHI and reference to where they are addressed in this EIS

Desired performance outcome	Requirement	EIS section where requirement addressed
1. Environmental Impact Assessment Process The process for assessment of the project is transparent, balanced, well focused and legal.	1. The Environmental Impact Statement (the EIS) must be prepared in accordance with Part 8 of the Environmental Planning and Assessment Regulation 2021 (the EP&A Regulation).	Appendix C (Statutory compliance)
	2. The EIS must be prepared having regard to the Department's State Significant Infrastructure Guidelines and State Significant Project Technical Guidelines (together, the Guidelines), as relevant.	Section 6.1 Section 24.6
	3. It is the Proponent's responsibility to determine whether the project needs to be referred to the Australian Government Department of Climate Change, Energy, the Environment and Water (AG DCCEEW) for an approval under the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (the EPBC Act). If AG DCCEEW determines the project is a Controlled Action and an approval is required under the EPBC Act, supplementary environmental assessment requirements may need to be issued to ensure a streamlined assessment under an Accredited Assessment process.	Section 4.1 Section 11.5.5 Appendix C (Statutory compliance)
	4. Where the project is a Controlled Action and requires approval under the EPBC Act and is being assessed under the Bilateral Agreement (pursuant to Amending Agreement No.1), the EIS must include:	Not applicable (refer above)
	(a) consideration of any Protected Matters that may be impacted by the project	Not applicable (refer above)
	(b) identification and assessment of those Protected Matters that are likely to be significantly impacted	Not applicable (refer above)

Desired performance outcome	Requirement	EIS section where requirement addressed
	(c) details of how significant impacts to Protected Matters have been avoided, mitigated and, if necessary, offset	Not applicable (refer above)
	(d) consideration of, and reference to, any relevant conservation advice, recovery plans and threat abatement plans	Not applicable (refer above)
	5. The onus is on the Proponent to ensure legislative requirements relevant to the project are met.	Chapter 4 (Statutory context) Appendix C (Statutory compliance)
2. Environmental Impact Statement The project is described in sufficient detail to enable clear understanding that the project has been developed through an iterative process of impact identification and assessment and project refinement to avoid, minimise or offset impacts so that the project, on balance, has the least adverse environmental, social and economic impact, including its cumulative impacts.	1. The EIS must include, but not necessarily be limited to, the following:	As per below
	(a) a summary of the project as a whole that has regards to the economic, environmental and social impacts of the project and the principles of ecologically sustainable development	Executive summary
	(b) an introduction	Chapter 1 (Introduction)
	(c) the strategic and project context including but not limited to –	Chapter 2 (Strategic context)
	• relevant Government strategies, policies or plans which provide strategic support for the project	Section 2.1
	• regional and local land use planning context	Section 2.5.1
	• key features of the project corridor and surrounds that could affect or be affected by the project including land uses, land ownership, important features of the natural, cultural and built environment	Section 2.5.2

Desired performance outcome	Requirement	EIS section where requirement addressed
	• analysis of feasible alternatives to the project and options within the project, including –	Section 2.3
	– do nothing option	Section 2.3
	– details of the short-listed route options and the criteria used in the selection of the preferred route, including justification for discharge locations into the Parramatta River	Section 2.4
	• how the project will align with the Camelia-Rosehill Place Strategy, particularly with regard to:	Section 2.1.1.2
	– the delivery of road and active transport link over Duck River/Creek to Carnarvon Street and	Section 2.1.1.2
	– the location of the proposed pipelines under the Rosehill Racecourse	Section 2.1.1.2
	• how the project will interact with the Sydney Metro West and Parramatta Light rail projects	Section 2.5.4 Chapter 23 (Cumulative impacts)
	(d) a project description, including but not limited to –	Chapter 3 (Project description)
	• project area	Section 3.2
	• physical layout and design, including an overview of the project in a table that captures the main elements of the project, all construction and operational mitigation measures built into the physical layout and design, and figures illustrating the construction and operational elements of the project, including overflow discharge points	Table 3-1 Figure 3-1 to 3-5 Section 3.4.2 Chapter 3 (Project description)

Desired performance outcome	Requirement	EIS section where requirement addressed
	• uses and activities, including a description of any related development or infrastructure that is required for the project or may be developed as a result of the project, but would be subject to a separate approval process	Section 1.8 Section 3.1 and 3.10
	• a description of utility services that need to be provided or relocated and are included within the project scope	Section 1.8.4.1 Section 3.7
	• timing and sequencing	Section 3.3
	• construction methodology, including that for waterway crossings	Section 3.7
	• timing and sequencing	Section 3.3
	(e) the statutory context of the project including:	Chapter 4 (Statutory context)
	• any necessary licences and approvals	Section 4.1
	• applicable policies and guidelines	Section 2.1 Section 4.3
	• any existing licences, orders, approvals and consents applying to the site and how they interact with the project	Section 4.1
	(f) the community and agency engagement undertaken and to be undertaken for the project, including but not limited to:	Chapter 5 (Engagement)
	• EPA for noise and vibration, water quality, contamination, air quality, and waste	Table 5-5

Desired performance outcome	Requirement	EIS section where requirement addressed
	• NSW DCCEEW for biodiversity, flooding, water and soils, and lands managed by National Parks and Wildlife Services	Table 5-5 Consultation for all matters identified undertaken through the Major Projects portal. Correspondence received on biodiversity (Appendix L).
	• Heritage NSW for heritage (both Aboriginal and environmental)	Table 5-3 Advised of project impacts and offered meeting.
	• Sydney Metro and Transport for NSW with regards to interactions with other SSI's.	Table 5-5
	• Department of Planning, Housing and Infrastructure (State-led Rezoning team) and Australian Turf Club regarding the future redevelopment of Camellia-Rosehill precinct	Table 5-5
	• Sydney Olympic Park Authority for matters relating to Sydney Olympic Park lands	Table 5-5
	• The relevant council's including matters relating to making Paramatta River Swimmable	Table 5-5
	• Impacted community groups.	Table 5-3, Table 5-4
	(g) the assessment and mitigation of impacts, which provides a detailed summary of the results of the assessment of the potential impacts of the project (see section 3)	Executive summary Chapters 7 to 23 Section 24.3 and 24.7 Appendix E (Mitigation measures)

Desired performance outcome	Requirement	EIS section where requirement addressed
	(h) the justification and evaluation of the project.	Chapter 24 (Justification)
3. Assessment and Mitigation of Key Issues and Impacts Key issues and impacts are assessed objectively and thoroughly to provide confidence that the project will be constructed and operated within acceptable levels of impact or with appropriate management and offsets. Key impact issues are nominated by the Proponent in the SSI project application and by the Department in the SEARs. Key issues need to be reviewed throughout the preparation of the EIS to ensure any new key issues that emerge are captured. The key issues identified in this document are not exhaustive but are key issues common to most linear Transport and Water SSI projects.	1. The level of assessment of likely impacts must be proportionate to the significance of, or degree of impact on, the issue, within the context of the project location and the surrounding environment. The level of assessment must be commensurate to the degree of impact and sufficient to ensure that the Department and other government agencies are able to understand and assess impacts.	Chapter 6 (Impact assessment approach)
	2. For each key issue, the EIS must include a detailed summary of the results of the assessment of the potential impacts of the project undertaken in detailed studies, including:	Chapter 7 to Chapter 22
	(a) the condition of the existing environment	Chapter 7 to Chapter 22
	(b) a summary of the key findings of the detailed technical studies in the appendices of the EIS, using suitable cross-referencing to specific sections and subsections to reduce repetition between the main body of the EIS and technical studies	Chapter 7 to Chapter 22
	(c) description of the scale and nature of the predicted impacts, including any cumulative impacts, and whether these impacts will comply with the relevant statutory requirements, standards, performance measures, and goals and criteria set out in relevant guidelines and policies	Chapter 7 to Chapter 22 Chapter 23 (Cumulative impacts)
	(d) demonstrated ability to avoid, mitigate or offset the impacts of the project having regards to	As per below
	• mitigation measures incorporated into the design of the project (e.g., changes to the project area, project layout and design, key uses and activities carried out on site, timing)	Section 6.4 Section 7.3 Section 8.4 Section 10.4 Section 11.4 Section 14.4

Desired performance outcome	Requirement	EIS section where requirement addressed
		Section 15.5 Section 16.6 Section 22.4
	• other mitigation measures that will be implemented	Chapter 7 to Chapter 22 Appendix E (Mitigation measures)
	• any negotiated agreements or offsets proposed to address residual impacts of the project following mitigation	Section 11.8
	(e) detailed reasons justifying any predicted exceedances of relevant standards, performance measures, and goals and criteria set out in relevant guidelines and policies	Chapter 7 to Chapter 22
	(f) identification of key uncertainties associated with the assessment and what action will be taken to address these uncertainties	Section 7.4.3 Section 7.7.3 Section 11.2.4 Section 15.1.6 Section 16.2.6 Appendices F (Hydrodynamics and Water Quality Impact Assessment) to V (Preliminary Hazard Analysis)
	(g) highlight any key linkages between the assessment of different matters or likely cumulative impacts of the project.	Chapter 7 (Waterways) Section 19.2.2 Chapter 23 (Cumulative impacts)
4. Key Appendices	1. The EIS must include the following appendices:	As per below

Desired performance outcome	Requirement	EIS section where requirement addressed
	(a) a SEARs table, identifying the sections and subsections where the SEARs have been addressed in the EIS and in the technical studies in the appendices	Appendix A (SEARs table)
	(b) a statutory compliance table, identifying the sections and subsections where the relevant statutory requirements have been addressed in the EIS	Appendix C (Statutory compliance)
	(c) a community engagement table, identifying where the issues raised by the community during	Appendix D (Community engagement table)
	(d) a table of the proposed mitigation measures for the project (excluding any mitigation measures that are built into the physical layout and design of the project and captured in the project description)	Appendix E (Mitigation measures)
	(e) any supporting information, including any detailed technical studies prepared by specialists.	Appendix A (SEARs table) to Appendix V (Preliminary Hazard Analysis)
5. Estimated Development Cost	1. Provide the estimated development cost (EDC) of the development prepared in accordance with the relevant planning circular using the Standard Form of EDC Report.	Provided to DPHI separate to the EIS

Table A 2 lists the key issue SEARs and where they have been addressed in the EIS.

Table A 2: Key issue SEARs provided by DPHI and reference to where they are addressed in this EIS

Key issue and desired performance outcome	Requirement	EIS section where requirement addressed
1. Air Quality The project is designed, constructed and operated in a manner that minimises air quality impacts (including nuisance, dust and odour) to minimise risks to human health and the environment to the greatest extent practicable.	1. Undertake an **air quality impact assessment (AQIA)** for construction and operation of the project in accordance with the current guidelines.	Appendix M (Air Quality Impact Assessment)
	2. The **AQIA** must include the following:	Appendix M (Air Quality Impact Assessment) and as per below
	(a) demonstrated ability to comply with the relevant regulatory framework, specifically *Protection of the Environment Operations Act 1997* and *Protection of the Environment Operations (Clean Air) Regulation* (2022).	Section 12.6
	(b) identification and assessment of construction air pollution sources and measures for preventing and/or minimising their generation, including nuisance dust, emissions from plant and equipment and potential odours from contaminated and acid sulfate soils	Section 12.5
	(c) a description of operational odour control techniques proposed for the project and their effectiveness in reducing odour emissions	Section 12.6.1
	(d) assessment of operational odour impacts, including on any future redevelopment of the Camellia-Rosehill precinct	Section 12.6.1
	(e) cumulative local and regional air quality impact assessment.	Section 12.6.2 Section 23.4.4
2. Biodiversity	1. Prepare a **Biodiversity Development Assessment Report (BDAR)** that assess biodiversity impacts in accordance with section 7.9 of the *Biodiversity Conservation Act 2016* (BC Act) and the Biodiversity Assessment Method 2020 (BAM).	Appendix L (BDAR)

Key issue and desired performance outcome	Requirement	EIS section where requirement addressed
The project design considers measures to avoid and minimise impacts on terrestrial and aquatic biodiversity. Offsets and / or supplementary measures are assured which are equivalent to residual impacts of project construction and operation.	2. The BDAR must document the application of the avoid, minimise and offset framework including assessing all direct, indirect and prescribed impacts in accordance with the BAM.	Section 11.4 Section 11.8 Section 11.5
	3. The BDAR must include information in the form detailed in s6.12 of the BC Act, section 6.8 of the *Biodiversity Conservation Regulation 2017* (BC Regulation) and the BAM including details of the measures proposed to address the offset obligation as follows:	Appendix L (BDAR)
	(a) the total number and classes of biodiversity credits required to be retired for the project	Section 11.8
	(b) the number of classes of like-for-like biodiversity credits proposed to be retired	Section 11.8
	(c) the number and classes of biodiversity credits proposed to be retired in accordance with the variation rules	Section 11.8
	(d) any proposal to fund a biodiversity conservation action	Section 11.8
	(e) any proposal to make a payment to the Biodiversity Conservation Fund	Section 11.8
	(f) any staged retirement of credits based on when a development / activity that would impact on biodiversity values is carried out.	Section 11.8
	***Note**: If seeking approval to use the variation rules, the BDAR must contain details of the reasonable steps that have been taken to obtain requisite like-for-like biodiversity credits*	Section 11.8
	4. The BDAR must be submitted with all digital spatial data associated with the survey and assessment	Submitted with the EIS
	5. The BDAR must be prepared by a person accredited in accordance with the Accreditation Scheme for the Application of Biodiversity Assessment Method Order 2017 under section 6.10 of the BC Act.	Section 11.2.2

Key issue and desired performance outcome	Requirement	EIS section where requirement addressed
	6. The BDAR must include details of the measures proposed to address offset obligations.	Section 11.8
	7. Impacts on biodiversity values not covered by the BAM must be assessed. This includes a **threatened aquatic species assessment** (under Part 7A of *Fisheries Management Act 1994* (FM Act)) to address whether there are likely to be any significant impact on listed threatened species, populations or ecological communities listed under the FM Act.	Section 7.7.4 Section 7.7.5
	8. Identify whether the project, or any component of the project, would be classified as a **Key Threatening Process (KTP)** in accordance with the listings in the BC Act, FM Act and the EPBC Act.	Section 7.7.4.5 Section 7.7.5.4 Section 11.5.4
	9. Assess the potential impacts to Key Fish Habitat and / or threatened species from the release of treated wastewater into the Parramatta River.	Section 7.7.5
	10. Assess the potential impacts to Key Fish Habitat and / or threatened species from the release of brine to a wastewater system with an ocean outfall or demonstrate how the project will be consistent with the existing environment protection licence (EPL 378).	Section 7.4.6
	11. Demonstrate how the design and construction of the project avoids, minimises and mitigates impacts to Key Fish Habitat.	Section 7.3 Section 7.7.4
	12. Detail the measures for avoiding and/or minimising impacts on native riparian vegetation, including identification of buffer zones for waterway crossings.	Section 7.7.6

Key issue and desired performance outcome	Requirement	EIS section where requirement addressed
3. Climate Change Risk The project is designed, constructed and operated to be resilient to the future impacts of climate change.	1. The **risk and vulnerability of the project to climate change** in accordance with the current guidelines. This must include discussion of any proposed adaptation to climate change during the project's life cycle.	Section 20.5
	2. Climate change risks must be quantified with reference to the NSW Government's climate projections at 10km resolution (or lesser resolution if 10km projections are not available) or equivalent projection tool (such as the Climate Futures Tool from CSIRO and Bureau of Meteorology (attenuated for project region)) and specific adaptation actions incorporated in the design.	Section 20.5
4. Contamination Human and environmental health is protected by understanding the presence and risks associated with contaminated land, including impacts to soils, groundwater, surface water and sediments. Contamination risks are independently considered consistent with the auditing regime established under the Contaminated Land Management Act, 1979	1. Identify the likelihood of contamination (which includes soils, groundwater, ground gas, surface water and sediments, where applicable) by considering the context of past, existing and future land uses. The EIS must document how the assessment of contaminated land has considered relevant guidelines for contaminated land made or approved under section 105 of the *Contaminated Land Management Act 1997*.	Section 9.3 Section 9.4 Section 9.5 Appendix J (Soils and Contaminated Land Impact Assessment)
	2. Where contamination is considered likely based on past or current land uses or other factors (such as offsite contamination migrating onto the site), undertake detailed site investigation/s to determine the nature and extent of the contamination.	Section 9.4 Section 9.5 Appendix J (Soils and Contaminated Land Impact Assessment)
	3. Where contamination exists, assess if remediation of the land is required, having regard to the ecological and human health risks posed by the contamination.	Appendix J (Soils and Contaminated Land Impact Assessment) No remediation was recommended
	4. Any Preliminary Site Investigation, Detailed Site Investigation, or other related reports on contamination (including but not limited to a Sampling Analysis Quality Plan), must be accompanied with an Interim Audit Advice or a Site Audit Statement from a NSW EPA accredited Site Auditor certifying the appropriateness of the assessments. Any risk rating of areas of environmental interest (or areas of environmental concern or any other similar terminology) as well as the proposed	Section 9.3.3 Appendix J (Soils and Contaminated Land Impact Assessment)

Key issue and desired performance outcome	Requirement	EIS section where requirement addressed
	mitigation measures must be also reviewed as appropriate by the accredited Site Auditor.	
	5. Consider potential impacts to the integrity of the Sydney Olympic Park Authority's waste containment systems, in particular at the Woo-la-ra landfill and its leachate gravity drain and vertical cut-off wall south of the waste mound.	Section 9.4 Section 9.5 Appendix J (Soils and Contaminated Land Impact Assessment)
	6. Contamination reports must be prepared or reviewed by a Contaminated Land Consultant certified under either the Environment Institute of Australia or New Zealand's "Certified Environmental Practitioner" (Site Contamination) scheme (CEnvP(SC)) or the Soil Science Australia "Certified Professional Soil Scientist Contaminated Site Assessment and Management" (CPSS CSAM) scheme.	Section 9.2.2
	7. A Detailed Site Investigation must be prepared if recommended by a Preliminary Site Investigation unless justification is provided in the EIS on why it is not possible to undertake a such an investigation.	Appendix J (Soils and Contaminated Land Impact Assessment)
5. Economic The project minimises impacts to property and business and achieves appropriate integration with adjoining land uses, including maintenance of appropriate access to properties and community facilities, and minimisation of displacement of existing land use activities, dwellings and infrastructure.	1. **Economic impacts** on potentially affected properties, businesses, recreational users and land and water users (for example, recreational and commercial fishers, oyster farmers), including property acquisitions/adjustments, access, amenity and relevant statutory rights.	Section 18.4.2 Section 18.5.2
6. Flooding The project minimises adverse impacts on existing flooding characteristics.	1. Changes to **flood behaviour** during construction and operation for a full range of flood events up to the probable maximum flood (taking into account sea level rise and storm intensity due to climate change) must be assessed (and modelled) including:	Section 8.6 Appendix I (Flood Assessment Report)

Key issue and desired performance outcome	Requirement	EIS section where requirement addressed
Construction and operation of the project avoids or minimises the risk of, and adverse impacts from, infrastructure flooding, flooding hazards, or dam failure.	(a) time to onset, duration, depth, velocity and hydraulic hazard of any flooding	Section 8.6.1 Section 8.6.2 Appendix I (Flood Assessment Report)
	(b) any detrimental increases in the potential flood affectation of other properties, assets and infrastructure	Section 8.6.1 Section 8.6.2 Appendix I (Flood Assessment Report)
	(c) consistency (or inconsistency) with applicable Council floodplain risk management plans	Section 8.6.1 Section 8.6.2 Appendix I (Flood Assessment Report)
	(d) compatibility with the flood hazard of the land	Section 8.6.1 Section 8.6.2 Appendix I (Flood Assessment Report)
	(e) compatibility with the hydraulic functions of flow conveyance in flood ways and storage areas of the land	Section 8.6.1 Section 8.6.2 Appendix I (Flood Assessment Report)
	(f) downstream velocity and scour potential	Section 8.6.1 Section 8.6.2 Appendix I (Flood Assessment Report)
	(g) impacts the development may have upon existing community emergency management arrangements for flooding. These matters must be discussed with the State Emergency Services and Council	Section 8.6.1 Section 8.6.2 Appendix I (Flood Assessment Report)

Key issue and desired performance outcome	Requirement	EIS section where requirement addressed
	(h) any impacts the development may have on the social and economic costs to the community as consequence of flooding	Section 8.6.1 Section 8.6.2 Appendix I (Flood Assessment Report)
	(i) an independent peer-review, with the findings detailed in the EIS, including how any recommendations and findings have been addressed	Appendix I (Flood Assessment Report)
	(j) Impact on existing development consents that apply to the site.	Section 8.6.1 Section 8.6.2 Appendix I (Flood Assessment Report)
	***Note**: Flood modelling is to be undertaken by a suitably qualified engineer consistent with Council's requirements and Australian Rainfall and Runoff. Flood behaviour includes flood volume, extent, depth, level, velocity, duration, rate of rise, flood function and hazard. Impacts of flooding include changes to flood behaviour and risks to the community including emergency management response for the community*	Appendix I (Flood Assessment Report)
	2. **Flood management objectives and outcomes** must be clearly identified and substantiated to address the characteristics of the environment and relevant legislative, management and guidance requirements	Section 8.6.1 Section 8.6.2 Appendix I (Flood Assessment Report)
	3. **A flood impact and risk assessment (FIRA)**, prepared in accordance with relevant guidelines, and having regard to advice provided by Biodiversity, Conservation and Science Group **(Attachment A)**.	Appendix I (Flood Assessment Report)

Key issue and desired performance outcome	Requirement	EIS section where requirement addressed
7. Hazards and Risk The project considers hazards associated with the storage of dangerous goods.	1. Undertake a preliminary risk screening in accordance with Chapter 3 of SEPP (Resilience and Hazards) 2021 and Applying SEPP 33 (DoP, 2011). If the screening indicates that the development is 'potentially hazardous', a Quantitative Risk Assessment (QRA) must be prepared in accordance with the Department's Hazardous Industry Planning Advisory Paper No. 6, 'Hazard Analysis'. The QRA must include and not be limited to the following:	As per below Appendix V (Preliminary Hazard Analysis)
	(a) Identification of the quantity of dangerous goods to be stored, handled and transported to site and the associated locations,	Section 22.2.2.1 Section 22.5
	(b) Justification for the appropriate choice of dangerous goods/chemicals selected for the process to reduce the potential risk exposure to surrounding receivers	Section 22.4
	(c) an explanation of the processes/technologies proposed for the facility and any critical safeguards	Chapter 3 (Project description) Section 22.8
	(d) demonstration of compliance with relevant quantitative and qualitative risk criteria as set out in Hazardous Industry Planning Advisory Paper No 4 – Risk Criteria for Land Use Safety Planning	Section 22.7
	(e) demonstration that the cumulative individual and societal risk from hazard sources (i.e. proposed facility, Dangerous Goods pipelines, and major hazards facility within Rosehill/Camellia precinct) would comply with all relevant land use safety risk criteria as set out in Hazardous Industry Planning Advisory Paper No. 4, with consideration of the population limits set out for Rosehill Camellia Precinct	Section 22.7
	(f) demonstration that appropriate spill containment will be provided for storage, filling and loading of all fuels and other chemicals to be used on site	Section 22.5
	(g) demonstrated compliance with Part 9.3E of the POEO Act for the use of industrial chemicals, including details of activities involving Schedule 6 or Schedule 7 chemicals listed on the Industrial Chemicals Environmental Management Standard (IChEMS) register.	Section 22.5

Key issue and desired performance outcome	Requirement	EIS section where requirement addressed
8. Health and Safety The project avoids or minimises any adverse health impacts arising from the project. The project avoids, to the greatest extent possible, risk to public safety.	1. The health impacts of the project, in accordance with the current guidelines.	Section 19.4 Section 19.5 Appendix T
	2. The assessment must:	As per below
	(a) describe the current known health status of the affected population	Section 19.3
	(b) assess health risks associated with exposure to environmental hazards	Section 19.4 Section 19.5
	(c) assess the effect of the project on other relevant determinants of health such as the level of physical activity and access to social infrastructure	Section 19.4.7 Section 19.5.7
	(d) assess opportunities for health improvement	Section 19.6
	(e) assess the distribution of the health risks and benefits	Section 19.4 Section 19.5 Section 19.6
	(f) discuss how, in the broader social and economic context of the project, the project will minimise negative health impacts while maximising the health benefits	Section 19.6
	(g) assess the impact of project discharge(s) to Parramatta River on making the Parramatta River swimmable by 2025, and the potential health impacts to recreational uses of Parramatta River.	Section 19.5.1
	3. The likely risks of the project to public safety, paying particular attention to pedestrian safety, subsidence risks, bushfire risks and the handling and use of dangerous goods.	Section 19.4.5 Section 19.4.6 Section 19.5.5 Section 19.5.6

Key issue and desired performance outcome	Requirement	EIS section where requirement addressed
9. Heritage – Aboriginal The design, construction and operation of the project facilitates, to the greatest extent possible, the long-term protection, conservation and management of the heritage significance of items of Aboriginal objects and places. The design, construction and operation of the project avoids or minimises impacts, to the greatest extent possible, on the heritage significance of Aboriginal objects and places and cultural heritage values.	1. Assess and manage all impacts to the **heritage significance** of:	As per below
	(a) Aboriginal places, objects and cultural heritage values, as defined under the *National Parks and Wildlife Act 1974* (NPW Act) and in accordance with the principles and methods of assessment identified in the current guidelines; and	Section 16.5 Section 16.6
	(b) Aboriginal places of heritage significance, as defined in the Standard Instrument – Principal Local Environmental Plan.	Section 16.5 Section 16.6
	2. Where impacts to Aboriginal places, and/or objects are identified, the assessment must:	
	(a) be documented in an Aboriginal Cultural Heritage Assessment Report (ACHAR). This may include the need for survey and test excavation	Appendix Q (Aboriginal Cultural Heritage Assessment Report)
	(b) assess impacts on Aboriginal Cultural Heritage values (tangible and intangible)	Section 16.3.6 Section 16.5 Section 16.6 Section 16.7
	(c) outline measures to avoid and minimise those impacts during construction and operation in accordance with the current guidelines	Section 16.7
	(d) outline procedures to be followed if Aboriginal objects, Aboriginal burials or skeletal material are found during construction or operation, which formulate appropriate measures to manage unforeseen impacts	Section 16.7
	(e) outline the long-term management framework for the ongoing protection, management and conservation of Aboriginal objects and other heritage values.	Section 16.7

Key issue and desired performance outcome	Requirement	EIS section where requirement addressed
	3. Where archaeological investigations of Aboriginal objects are proposed these must be conducted by a suitably qualified and experienced archaeologist, in accordance with section 1.6 of the *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW* (DECCW 2010)	Not applicable – no test excavations proposed.
	4. Where impacts to Aboriginal objects and/or places is likely, consultation must be undertaken with Aboriginal people and stakeholders in accordance with the *National Parks and Wildlife Regulation 2019* and current guidelines, including Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010.	Section 16.2.5 Section 16.5 Section 16.6
10. Heritage – Environmental The design, construction and operation of the project facilitates, to the greatest extent possible, the long term protection, conservation and management of the heritage significance of environmental heritage. The design, construction and operation of the project avoids or minimises impacts, to the greatest extent possible, on the heritage significance of environmental heritage.	1. Assess and manage direct and / or indirect impacts to the **heritage significance** of:	
	(a) environmental heritage, as defined under the *Heritage Act 1977*	Section 15.5 Section 15.6 Appendix P (Statement of Heritage Impact)
	(b) items/places/properties listed on the Local, State, Commonwealth, National World Heritage and State Agency Section 170 Heritage and Conservation Registers or lists	Section 15.5 Section 15.6 Appendix P (Statement of Heritage Impact)
	(c) heritage items and conservation areas identified in environmental planning instruments applicable to the project area.	Section 15.5 Section 15.6 Appendix P (Statement of Heritage Impact)
	2. Where impacts to State or locally significant heritage items are identified, the assessment must:	As per below
	(a) include a significance assessment, a statement of heritage impact (SOHI) for all heritage items and a historical archaeological assessment	Appendix P (Statement of Heritage Impact)

Key issue and desired performance outcome	Requirement	EIS section where requirement addressed
	(b) assess the consistency of the project against conservation policies of any relevant conservation management plan	Section 15.3.2 Section 15.5 Section 15.6 Appendix P (Statement of Heritage Impact)
	(c) consider impacts to the item of significance caused by, but not limited to, vibration, demolition, archaeological disturbance, altered historical arrangements and access, visual amenity, landscape and vistas, curtilage, subsidence and architectural noise treatment, drainage infrastructure, contamination remediation and site compounds (as relevant)	Section 15.5 Section 15.6
	(d) outline measures to avoid and minimise those impacts during construction and operation in accordance with the current guidelines	Section 15.7
	(e) justify changes to the heritage fabric of items or landscape elements, including analysis of alternative options	Table 15-6
	(f) identify opportunities for the project to reflect on the heritage character and significance of the site and surrounding area during construction and operation through heritage interpretation	Section 15.6
	(g) outline the future management framework for the ongoing protection, management and conservation of Heritage objects and other heritage values.	Section 15.7
	The assessment must be undertaken by a suitably qualified heritage consultant(s) and / or historical archaeologist. Where archaeological excavations are proposed the relevant consultant must meet the NSW Heritage Council's Excavation Director criteria).	Appendix P (Statement of Heritage Impact)

Key issue and desired performance outcome	Requirement	EIS section where requirement addressed
11. Noise and Vibration Construction noise and vibration (including airborne noise, ground-borne noise and blasting) are effectively managed to minimise adverse impacts on acoustic amenity, and adverse impacts on the structural integrity of buildings and items including Aboriginal places and environmental heritage. Increases in noise emissions and vibration affecting nearby properties and other sensitive receivers during operation of the project are effectively managed to protect the amenity and well-being of the community. Increases in noise emissions and vibration affecting environmental heritage as defined in the Heritage Act during operation of the project are effectively managed.	1. The assessment of **construction noise and vibration** must	As per below
	(a) identify and justify all noise monitoring locations used to determine the construction Noise Management Levels and construction Rating Background Levels	Section 13.2.4 Section 13.3
	(b) identify the relevant construction scenarios (both surface and below ground) for assessment considering, but not limited to, time of day, duration, annoying characteristics, and noise (both air and ground borne) and vibration levels	Section 13.4.1
	(c) identify noise (both air and ground borne) and vibration impacts resulting from work proposed to be undertaken outside of standard construction hours. The location, duration, type of activity and justification (consistent with ICNG requirements) must be provided	Section 13.4.1
	(d) identify predicted noise (both air and ground borne) and vibration levels, and provide noise and vibration contour maps for potentially affected receivers	Appendix N (Noise and Vibration Impact Assessment)
	(e) assess and justify the potential noise (both air and ground borne) and vibration impacts	Section 13.4
	(f) identify and assess the potential vibration impacts on Aboriginal places and environmental heritage (including heritage items)	Section 13.3.1 Section 13.4.3
	(g) assess noise generated by construction traffic on public roads and entering and exiting fixed facilities and construction works zones, including noise generated by idling heavy vehicles and consideration of road geometry	Section 13.4.2
	(h) identify and justify potential mitigation to be applied, including but not limited to learning(s) from previous projects, case studies and identification of good practice to manage noise and vibration impacts relevant to the proposed construction activities	Section 13.4.1 Section 13.6

Key issue and desired performance outcome	Requirement	EIS section where requirement addressed
	(i) identify and assess the predicted effectiveness of mitigation measures including the effect on noise (both air and ground borne) and vibrations levels, time of day and duration	Section 13.4.1
	(j) identify potential residual noise and vibration impacts following application of mitigation measures	Section 13.4
	(k) demonstrate how community consultation has informed the development of noise and vibration mitigation measures including how out-of-hours works has been socialised with the affected community	Section 13.4.1
	(l) consider cumulative noise and vibration impacts from the project, including concurrent and consecutive construction activities within the project boundary and the construction of other projects in the vicinity of the project	Section 23.4.5
	(m) consider construction fatigue and how this will be managed on during construction of the project, taking into account cumulative impacts particularly with other SSI projects such Sydney Metro West and Parramatta Light Rail Stage 2.	Section 23.4.5 Section 23.4.9
	2. The assessment of **Operational noise and vibration** must:	As per below
	(a) define and justify all operational assessment scenarios and activities, including additional noise from new and upgraded pumping stations	Section 13.5
	(b) demonstrate and validate the performance of the noise or vibration model used	Section 13.5
	(c) include the selection criteria / methodology and justification for monitoring locations with specific reference to locations indicative of potential impacts	Section 13.2.4 Section 13.3
	(d) identify all sensitive receivers that exceed the relevant operational triggers / criteria which may qualify for mitigation	Section 13.5
	(e) present predicted noise levels, and noise contour maps for all potentially affected receivers	Figure 13-2 Figure 13-3

Key issue and desired performance outcome	Requirement	EIS section where requirement addressed
	(f) identify, assess and justify conceptual mitigation measures to be implemented	Section 13.6
	(g) identify all affected receivers with residual impacts after the implementation of the conceptual mitigation measures.	Section 13.5
	3. The process for community engagement should be included or referenced in the noise and vibration assessment as part of the mitigation strategy and assessment.	Section 13.6
12. Place and Design	1. A **design led process** that is informed, collaborative and iterative, which:	As per below
	(a) utilises good design processes (such as Design Excellence and Design Review)	Section 17.7
	(b) utilises design experts and multidisciplinary teams	Section 17.7
	(c) is designed with and connected with Country	Section 17.7.2
	(d) involves the Department of Planning, Housing and Infrastructure (State-led Rezoning team) and other stakeholders	Section 17.7.1
	2. Identify **place principles** that are reflective of the design objectives in Better Placed, including a focus on:	Section 17.8 Appendix R (Place and Design Framework)
	(a) fit – contextually, culturally, local and of its place (including future development state of the surrounding environment)	Section 17.8 Appendix R (Place and Design Framework)
	(b) performance – sustainable, adaptable and durable	Section 17.8 Appendix R (Place and Design Framework)
	(c) working- functional, efficient and fit for purpose	Section 17.8 Appendix R (Place and Design Framework)
	(d) value – creating and adding value to the community	Section 17.8 Appendix R (Place and Design Framework)

Key issue and desired performance outcome	Requirement	EIS section where requirement addressed
	(e) look and feel – engaging, inviting and attractive.	Section 17.8 Appendix R (Place and Design Framework)
	3. Include and illustrate **place designs, outcomes and actions** for the project that protect and facilitate improvements to the built environment and place, including in relation to	As per below
	(a) built form (including key project elements and amenity impacts on the surrounding environment)	Section 17.8.1 Appendix R (Place and Design Framework)
	(b) Aboriginal Cultural Heritage and Environmental heritage (including maritime) having regard to the results of any consultation and archaeological investigations	Section 17.7.2 Appendix R (Place and design framework)
	(c) views and vistas:	
	i. an assessment of visual impact and visual representations of the project from key locations to illustrate the project where visual impacts are deemed greater than medium	Section 17.5
	ii. consideration of views from the proposed future redevelopment of the Camellia-Rosehill precinct	Section 17.5.9
	iii. methods for screening the facility from publicly accessible areas and future redevelopment within the Camellia-Rosehill precinct	Section 17.6 Section 17.8 Appendix R (Place and design framework)
	(d) provision of adequate bicycle parking and high quality end-of trip facilities.	Appendix R (Place and design framework)
	4. Identify **green infrastructure design principles** that are reflective of the principles in Greener Places and The Sydney Green Grid.	Section 17.6.1 Section 17.8.1 Appendix R (Place and design framework)

Key issue and desired performance outcome	Requirement	EIS section where requirement addressed
	5. Include and illustrate **green infrastructure designs, actions and outcomes** for the project including in relation to:	Appendix R (Place and Design Framework) and as per below
	(a) green infrastructure that supports recreation, biodiversity and waterway health	Section 17.8.1 Appendix R (Place and design framework)
	(b) how the project will achieve a net increase in tree numbers and canopy within proximity of the impacted area	Section 17.8.1 Appendix R (Place and design framework)
	(c) mitigating urban heat island effects and provide appropriate comfort levels on-site	Section 17.8.1 Appendix R (Place and design framework)
	(d) how the design of the facility and its interface will integrate into the landscape	Section 17.8.1 Appendix R (Place and design framework)
13. Protected and Sensitive Lands The project is designed, constructed and operated to avoid or minimise impacts on protected and sensitive lands. The project is designed, constructed and operated to avoid or minimise future exposure to coastal hazards and processes.	1. Impacts of the project on **environmentally sensitive land and processes** (and the impact of processes on the project) including, but not limited to:	Section 7.7.2.5 Section 7.7.4 Section 7.7.5 Section 7.7.6
	(a) land defined as a "coastal environment area" under the State Environmental Planning Policy (Resilience and Hazards) 2021 *Reference to State Environmental Planning Policies is not a requirement for compliance with the policies; they are used here to define sensitive land only.*	Appendix H (Aquatic Biodiversity Impact Assessment)
	(b) coastal hazards identified in studies completed by local councils or state agencies (including risk mitigation strategies that reduce coastal hazards exposure and funding of such strategies)	Appendix H (Aquatic Biodiversity Impact Assessment)

Key issue and desired performance outcome	Requirement	EIS section where requirement addressed
	(c) coastal processes (including tides, sediment movement etc.) associated with adopted risk mitigation actions	**Receiving waters** Section 7.4.5.1 **Geomorphology** Section 7.6.4
	(d) protected areas (including land and water) managed BCS NSW DCCEEW and / or DPI Fisheries under the NPW Act and the *Marine Estate Management Act 2014*	Section 7.7.2.5 Appendix H (Aquatic Biodiversity Impact Assessment)
	(e) Key Fish Habitat as mapped and defined in accordance with the (FM Act)	Section 7.7.2 Section 7.7.4 Section 7.7.5
	(f) waterfront land as defined in the *Water Management Act 2000*	Section 7.7.2 Section 7.7.4 Section 7.7.5
	(g) land or waters identified as Critical Habitat under the FM Act or EPBC Act or areas of outstanding biodiversity value under the BC Act	None identified. Appendix H (Aquatic Biodiversity Impact Assessment) Appendix L (Biodiversity Development Assessment Report)

Key issue and desired performance outcome	Requirement	EIS section where requirement addressed
	(h) biodiversity stewardship sites, private conservation lands and other lands identified as offsets.	None identified. Appendix H (Aquatic Biodiversity Impact Assessment) Appendix L (Biodiversity Development Assessment Report)
14. Social The project is designed to provide socially sustainable outcomes. The project will maximise the social and economic welfare of the community. The project will deliver better development outcomes by minimising negative social impacts and enhancing positive social impacts on affected communities.	1. Potential **social impacts** of the project, during both construction and operation, from the points of view of the affected community and other relevant stakeholders (i.e., how they expect to experience the project), including disruptions to recreational land uses at outfall locations, and how any social impacts would be mitigated or offset.	Section 18.4.1 Section 18.5.1 Appendix S (Social Impact Assessment)
	2. How project activities, and **environmental changes and impacts** arising from the construction and operation of the project may affect:	As per below
	(a) way of life	Section 18.4.1 Section 18.5.1 Section 8 of Appendix S (Social Impact Assessment)
	(b) community	Sections 18.4.1 and 18.5.1 Section 8 of the SIA (Appendix S)
	(c) accessibility, including impacts on the Duck River Nature Trail	Sections 18.4.1 and 18.5.1 Section 8 of the SIA (Appendix S)
	(d) culture	Sections 18.4.1 and 18.5.1 Section 8 of the SIA (Appendix S)

Key issue and desired performance outcome	Requirement	EIS section where requirement addressed
	(e) health and well being	Sections 18.4.1 and 18.5.1 Section 8 of the SIA (Appendix S)
	(f) surroundings	Sections 18.4.1 and 18.5.1 Section 8 of the SIA (Appendix S)
	(g) livelihoods	Sections 18.4.1 and 18.5.1 Section 8 of the SIA (Appendix S)
	(h) decision making systems.	Sections 18.4.1 and 18.5.1 Section 8 of the SIA (Appendix S)
	3. Impact of the project on the use of Parramatta River for recreational purposes including swimming	Section 18.4.1 Section 18.5.1 Chapter 7 (Waterways assessment) Chapter 18 (Human health) Appendix S (Social Impact Assessment)
15. Soils The environmental values of land, including soils, subsoils and landforms, are protected. Risks arising from the disturbance and excavation of land and disposal of soil are minimised, including disturbance to acid sulfate soils.	1. Verify the risk of **acid sulfate soils** (Class 1, 2, 3 or 4 on the Acid Sulfate Soil Risk Map) within, and in the area likely to be impacted by, the project.	Section 9.3.2
	2. The impact of the project on **acid sulfate soils** (including impacts of acidic runoff offsite) in accordance with the current guidelines.	Section 9.4
	3. Identify whether **soil salinity** is likely to be an issue and if so, determine the presence, extent and severity of soil salinity within the project area, and assess the impacts of the project on soil salinity and how it may affect groundwater resources and hydrology.	Section 9.3.2 Section 9.4

Key issue and desired performance outcome	Requirement	EIS section where requirement addressed
16. Sustainability The project ensures the effective and efficient use of resources. Conservation of natural resources is maximised.	4. The impacts on **soil and land resources** (including erosion risk or hazard). Particular attention must be given to soil erosion and sediment transport consistent with the practices and principles in the current guidelines.	Section 9.3.2 Section 9.4 Section 9.5
	1. The **sustainability of the project** in accordance with an accredited rating tool and recommend an appropriate target rating for the project.	Section 20.4
	2. Consider and assess the project against current guidelines including targets and strategies to improve Government efficiency in use of water, energy and transport.	Section 20.3 Section 20.7
	3. Evaluate the potential for the beneficial reuse of treated water during project operation.	Section 20.7.1
17. Transport and Traffic Network connectivity, safety and efficiency of the transport system in the vicinity of the project are managed to minimise impacts. The safety of transport system customers is maintained. Impacts on network capacity and the level of service are effectively managed. Works are compatible with existing infrastructure and future transport corridors. 17. Transport and Traffic Network connectivity, safety and efficiency of the transport system in the	1. **Construction transport and traffic (vehicle, pedestrian and cyclists) impacts**, including, but not necessarily limited to:	As per below
	(a) a considered approach to route identification and scheduling of construction vehicle movements	Section 14.2 Section 14.5
	(b) the indicative number, frequency and size of construction related vehicles (passenger, commercial and heavy vehicles, including spoil management movements) accessing each construction ancillary facility and travelling along construction traffic routes during both standard hours and out-of-hours	Section 14.5
	(c) construction worker parking	Section 14.5
	(d) the nature of existing traffic (types and number of movements) on construction access routes (including consideration of peak traffic times and sensitive road users and parking arrangements)	Section 14.3.1 Section 14.5

Key issue and desired performance outcome	Requirement	EIS section where requirement addressed
vicinity of the project are managed to minimise impacts. The safety of transport system customers is maintained. Impacts on network capacity and the level of service are effectively managed. Works are compatible with existing infrastructure and future transport corridors.	(e) access constraints and impacts on public transport (infrastructure and services), pedestrians and cyclists	Section 14.5
	(f) the need to close, divert or otherwise reconfigure elements of the road, pedestrian and cycle network, duration of these changes, with a specific emphasis on impacts on the Duck River Nature Trails project and measures for retaining pedestrian and cyclists access	Section 14.5
	(g) impacts to on-street parking, including to residents and businesses	Section 14.5
	(h) a cumulative impact assessment taking into consideration the delivery of Parramatta Light Rail Stage 2 and Sydney Metro projects, including but not limited to road works, road closures, haulage routes, and construction worker parking.	Section 23.4.6 Appendix O (Traffic and Transport Impact Assessment)
	2. **Operational traffic and transport arrangements and impacts** of the project, including:	Appendix O (Traffic and Transport Impact Assessment) and as per below
	(a) forecast traffic volumes for the project and the surrounding road	Section 14.6
	(b) impacts on property and business access and on-street parking	Section 14.6
	(c) impacts on the Duck River Nature Trails and any measures to maintain public access	Section 14.6
	(d) details on the maximum size of vehicles that will be servicing the facility and demonstration that adequate access is provided	Section 14.6
	(e) impacts on the delivery and operation of Parramatta Light Rail Stage 2 and Sydney Metro projects.	Section 14.4 Section 23.4.6 Appendix O (Traffic and Transport Impact Assessment)

Key issue and desired performance outcome	Requirement	EIS section where requirement addressed
18. Waste Wates generated during the construction and operation of the project are effectively stored, handled, treated, reused, recycled and/or disposed of lawfully and in a manner that protects environmental values	1. Predicted **waste generated** from the project during construction and operation, including	Appendix U (Waste Management Impact Assessment) and as per below
	(a) classification of the waste in accordance with the current guidelines	Section 21.4.1 Section 21.5.1
	(b) estimates / details of the quantity of each classification of waste to be generated during the construction of the project, including bulk earthworks and spoil balance	Section 21.4.1 Section 21.4.2
	(c) methods for handling of waste including measures to facilitate segregation and prevent cross contamination	Section 21.7
	(d) management of waste including estimated location and volume of stockpiles	Section 21.2.2 Section 21.4.2 Section 21.7
	(e) measures for waste minimisation and reuse	Section 21.2.2 Section 21.7
	(f) lawful disposal or recycling locations for each type of waste	Section 21.3.2
	(g) contingencies for the above, including managing unexpected waste volumes.	Section 21.4.2
	2. Potential environmental impacts from the excavation, handling, storage on site and transport of waste particularly with relation to sediment/leachate control, noise and dust.	Section 21.4.4 Section 21.5.4 Chapter 9 (Soils and contamination) Chapter 12 (Air quality) Chapter 13 (Noise and vibration)

Key issue and desired performance outcome	Requirement	EIS section where requirement addressed
19. Water – Hydrology Long term impacts on surface water and groundwater hydrology (including drawdown, flow rates and volumes) are minimised. The environmental values of nearby, connected and affected water sources, groundwater and dependent ecological systems including estuarine and marine water (if applicable) are maintained (where values are achieved) or improved and maintained (where values are not achieved). Sustainable use of water resources.	1. Describe the **existing hydrological regime** for surface and groundwater resources (including reliance by users and for ecological purposes) likely to be impacted by the project, including stream orders, as per the Framework for Biodiversity Assessment. This must include a description of groundwater levels across the site under a range of wet and dry conditions.	**Surface water** Section 7.5.2 **Groundwater** Section 10.3
	2. Map the following features: (a) rivers, streams, estuaries, and wetlands (as described in section 3.1.3 of the BAM)	Figure 7-4 Figure 7-10 Section 10.3
	(b) groundwater	Figure 10-1 Figure 10-2
	(c) groundwater dependent ecosystems	Figure 10-2
	(d) proposed discharge locations.	Figure 3-21 Figure 7-4
	3. A description of works / activities that may intercept, interfere, extract, use divert or receive surface water and groundwater on a temporary or permanent basis during construction and operation	**Surface water** Section 7.5.3 Section 7.5.4 **Groundwater** Section 10.5 Section 10.6
	4. Identify any relevant Water Sharing Plans that may potentially be impacted by the project.	Section 10.2.1

Key issue and desired performance outcome	Requirement	EIS section where requirement addressed
	5. Provide **a detailed water balance** for ground and surface water resources.	Section 7.5.3 Section 7.5.4
	6. **Surface and groundwater hydrology impacts (both quality and source)** of the construction and operation of the project and any ancillary facilities (both built elements and discharges) in accordance with the current guidelines, including:	
	(a) natural processes within rivers, wetlands, estuaries, marine waters and floodplains that affect the health of the fluvial, riparian, estuarine or marine system and landscape health (such as modified discharge volumes, durations and velocities), aquatic connectivity and access to habitat for spawning and refuge	**Surface water** Section 7.5.3 Section 7.5.4 **Geomorphology** Section 7.6.3 Section 7.6.4 **Aquatic biodiversity** Section 7.7.4 Section 7.7.5 **Groundwater** Section 10.5 Section 10.6

Key issue and desired performance outcome	Requirement	EIS section where requirement addressed
	(b) effects to upstream and downstream rivers, wetlands, estuaries, marine waters, floodplain areas and water-dependant fauna and flora (including groundwater dependant ecosystems)	**Geomorphology** Section 7.6.3 Section 7.6.4 **Aquatic biodiversity** Section 7.7.4 Section 7.7.5 **Groundwater** Section 10.5 Section 10.6
	(c) impacts from permanent and temporary interruption or interference of groundwater flow, including the extent of drawdown, barriers to flows, implications for groundwater dependent surface flows, ecosystems and species, groundwater users and the potential for geotechnical settlement associated with surface water bodies	Section 10.4 Section 10.6
	(d) changes to environmental water availability and flows, both regulated/licensed and unregulated/rules-based sources	Section 10.5 Section 10.5.6 Section 10.6
	(e) direct or indirect increases in erosion, siltation, destruction of riparian vegetation or a reduction in the stability of riverbanks or watercourses	Section 7.6.3 Section 7.6.4

Key issue and desired performance outcome	Requirement	EIS section where requirement addressed
	(f) methods for minimising the effects of proposed stormwater and wastewater management during construction and operation on natural hydrological attributes (such as volumes, flow rates, management methods and re-use options) and on the conveyance capacity of existing stormwater systems where discharges are proposed through such systems	Section 7.5.3 Section 7.5.4
	(g) water take (direct or indirect) from all surface and groundwater sources with estimates of annual volumes during construction and operation.	**Surface water** Section 7.5.3 Section 7.5.4 **Groundwater** Section 10.5.6
	(h) details of the proposed surface and groundwater monitoring to identify construction and operational hydrological impacts, including changes to groundwater levels.	**Surface water** Section 7.5.5 **Groundwater** Section 10.7.1
20. Water – Quality The project is designed, constructed and operated to protect the NSW Water Quality Objectives where they are currently being achieved, and contribute towards achievement of the Water Quality Objectives over time where they are currently not being achieved, including downstream of the project to the extent of the project impact including estuarine and marine waters (if applicable).	1. **Water Quality (surface and groundwater)** impacts on waterways potentially impacted by the project, including but not limited to the Parramatta River, Homebush Bay and Haslams Creek, including:	
	(a) existing background levels	Section 7.4.2
	(b) details on the ambient NSW Water Quality Objectives (NSW WQO) and environmental values for the receiving waters relevant to the project, including the indicators and associated trigger values or criteria for the identified environmental values	Section 7.4.1.1
	(c) identification and estimation of the quality and quantity of pollutants that may be introduced into the water cycle by source and discharge point and describe the nature and degree of impact that any discharge(s) may have on the receiving	Section 7.4.1.3

Key issue and desired performance outcome	Requirement	EIS section where requirement addressed
	environment, including consideration of all pollutants that pose a risk of non-trivial harm to human health and the environment	Section 7.4.5
	(d) results of water quality modelling and analysis including descriptions under the full range of operating scenarios, including average or typical through to worst case for any proposed discharge point, including but not limited to the full range of weather conditions, bypasses, and 'off-spec' effluent scenarios	Section 7.4.1.3 Section 7.4.5 Appendix F (Hydrodynamics and Water Quality Impact Assessment)
	(e) outline impacts from the proposal on existing sewage infrastructure including any potential impacts on dry weather and wet weather overflows from the existing reticulation network and any impacts on North Head Water Resource Recovery Facility concentrations and loads discharged and hydraulic and treatment capacity	Section 7.4.5 Section 7.4.6
	(f) details on the rainfall event that the water quality protection measures will be designed to cope with	Section 7.4.1.3 Section 7.4.5 Appendix F (Hydrodynamics and Water Quality Impact Assessment)
	(g) the significance of any identified impacts including consideration of the relevant ambient water quality outcomes	Section 7.4.5.2 Section 7.4.5.5 Appendix F (Hydrodynamics and Water Quality Impact Assessment)
	(h) details on how construction and operation of the project will, to the extent that the project can influence, ensure that:	**Receiving water** Section 7.4.5 **Surface water** Section 7.5.3 Section 7.5.4

Key issue and desired performance outcome	Requirement	EIS section where requirement addressed
		Geomorphology Section 7.6.3 Section 7.6.4
	i. where the NSW WQOs for receiving waters are currently being met they will continue to be protected	**Receiving water** Section 7.4.5.5 **Surface water** Section 7.5.3 Section 7.5.4
	ii. where the NSW WQOs are not currently being met activities will work toward their achievement over time	**Receiving water** Section 7.4.5.5 **Surface water** Section 7.5.3 Section 7.5.4
	iii. the objectives of making the Paramatta River swimmable can be met	**Receiving water** Section 7.4.5.2 **Human health** Section 19.5.1
	iv. migration of contamination is considered and how it will be managed and minimised	Section 7.6.3 Section 7.6.4 Appendix G (Surface Water and Geomorphology Impact Assessment)

Key issue and desired performance outcome	Requirement	EIS section where requirement addressed
	(i) justification for, if required, why the WQOs cannot be maintained or achieved over time	Section 7.4.5.5
	(j) demonstration that all practical measures to avoid or minimise water pollution and protect human health and the environment from harm are investigated and implemented. This also includes consideration and management of frac out from the temporary loss of drilling fluids and inappropriate storage of chemicals and fuels	Section 7.3 **Receiving water** Section 7.4.5 Section 7.4.7 **Surface water** Section 7.5.4 Section 7.5.5 **Groundwater** Section 10.5 **Human health** Section 19.7
	(k) Identification of sensitive receiving environments (which may include estuarine and marine waters downstream) and develop a strategy to avoid or minimise impacts on these environments	Section 7.3 **Receiving water** Section 7.4.2 Section 7.4.7 **Surface water** Section 7.5.2 Section 7.5.5 **Geomorphology** Section 7.6.2

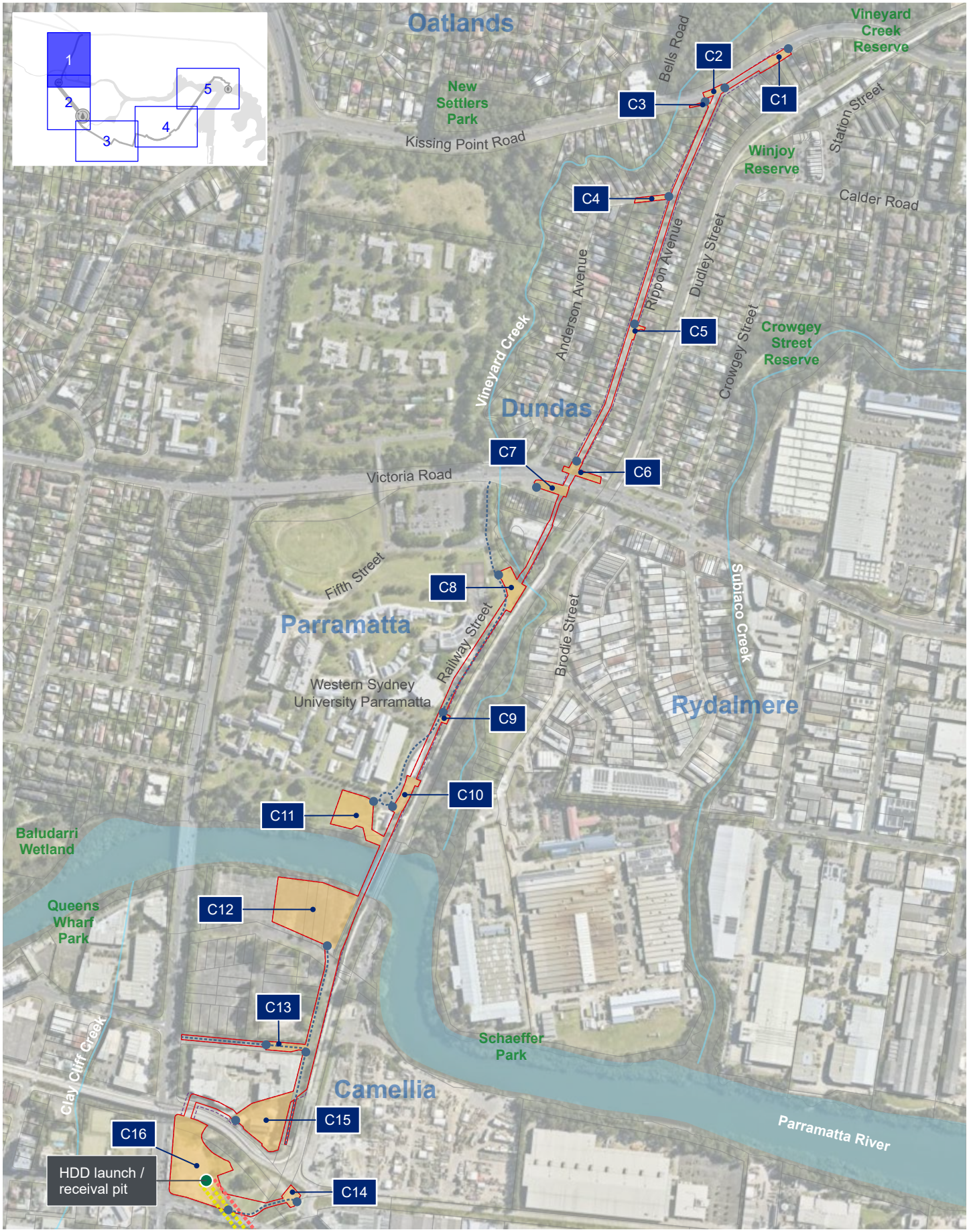
Key issue and desired performance outcome	Requirement	EIS section where requirement addressed
		Section 7.6.5 **Aquatic biodiversity** Section 7.7.2 Section 7.7.6 **Groundwater** Section 10.3 Section 10.4
	(l) proposed water quality monitoring programs, including monitoring locations, monitoring frequency and the parameters that will be monitored pre-construction, during construction and during operation, including justification for these.	**Receiving water** Section 7.4.7 **Groundwater** Section 10.7.1

Appendix B – Detailed maps and plans

Appendix B – Detailed maps and plans

The project is located on land shown in the below maps, being:

- Lot 1 DP1308385 (WRRF)
- Lot 2 DP1248547 (Camellia pumping station)
- land between the WRRF and Camellia pumping station for a distance of about 2.2 km
- land between the Camellia pumping station and the NSOOS at Kissing Point road, Dundas for a distance of about 3 km
- land between the WRRF and the river release point west of John Whitton Bridge for a distance of about 7.6 km.



Impact area (IA)
Impact assessment area (IAA)
Proposed Transfer Pipeline - Trenchless
Proposed Brine Pipeline - Trenchless
HDD launch / receival pit
Indicative compound access
Indicative compound access routes
Indicative construction compounds

Figure B-1 Project impact area including indicative construction compounds

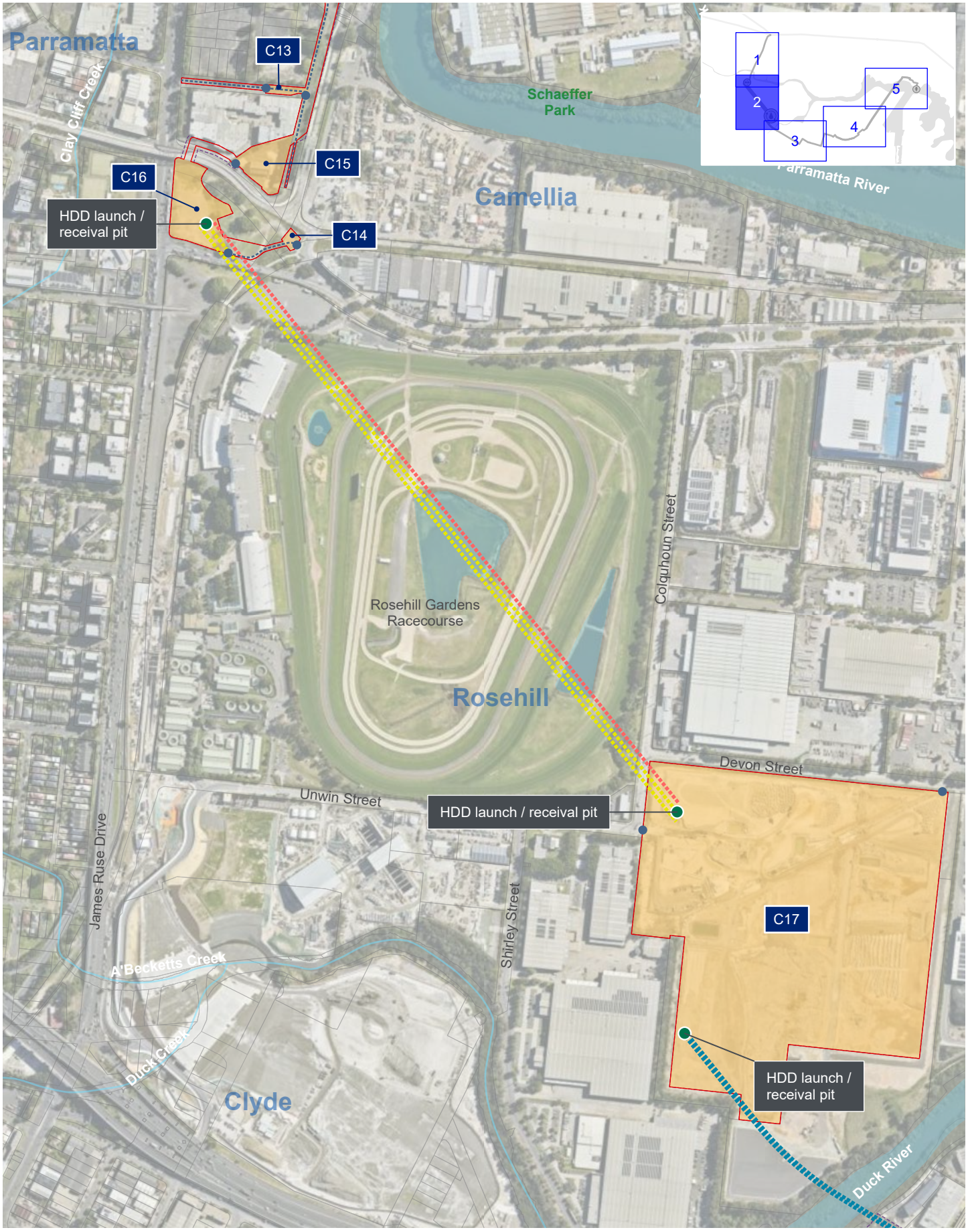
Sheet 1 of 5

0 100 200 300 m

Data sources: DCDB/DTDB - NSW DCS 2025
Basemap: MetroMap 2025

Scale: 1:8,000 @ A4
GDA2020 MGA Zone 56

N



Impact area (IA)
Impact assessment area (IAA)
Proposed Transfer Pipeline - Trenchless
Proposed Brine Pipeline - Trenchless
Proposed River Release Pipeline - Trenchless
HDD launch / receival pit
Indicative compound access
Indicative compound access routes
Indicative construction compounds

Figure B-2 Project impact area including indicative construction compounds

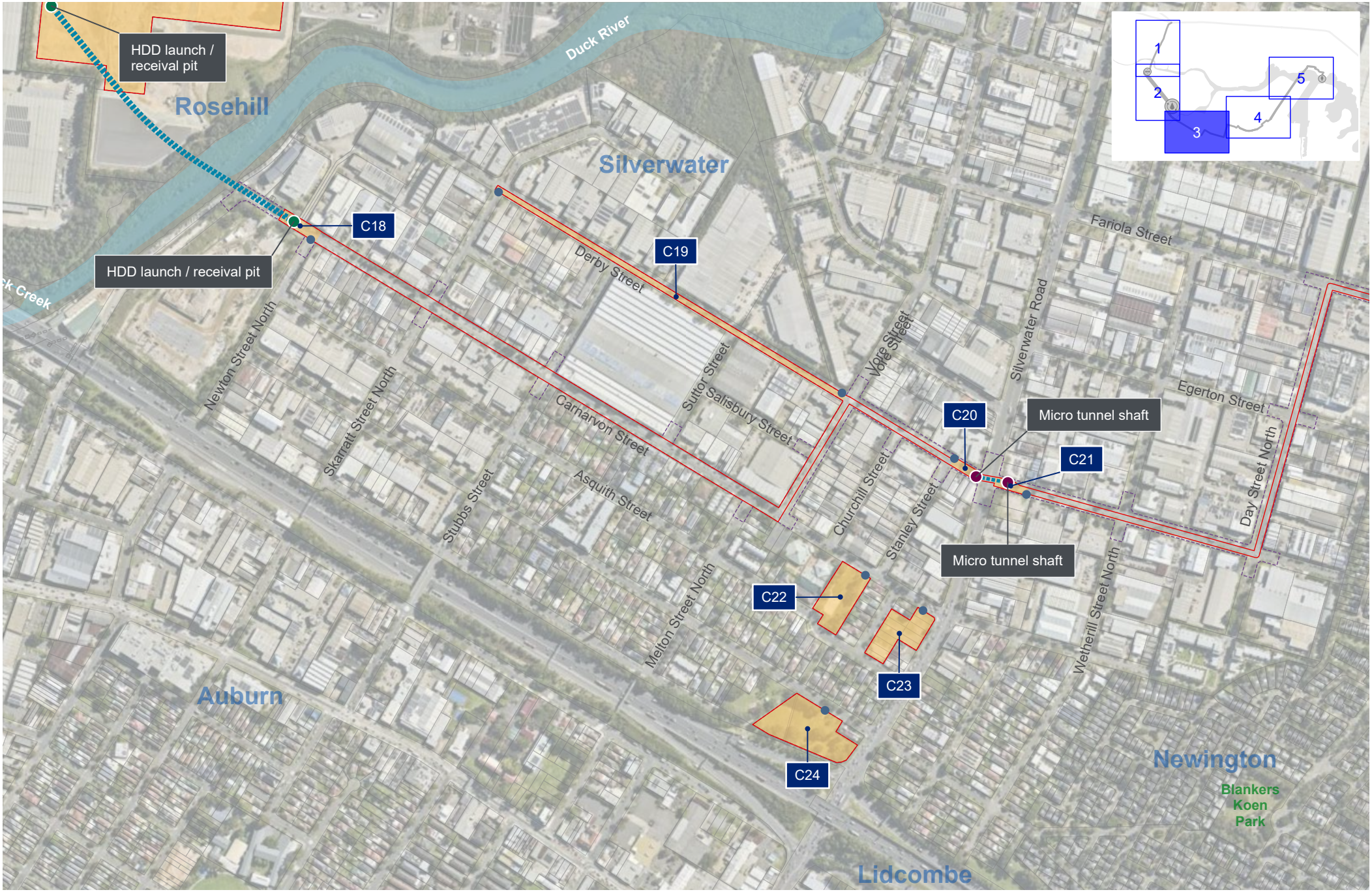
Sheet 2 of 5

0 100 200 300 m

Data sources: DCDB/DTDB - NSW DCS 2025
Basemap: MetroMap 2025

Scale: 1:8,000 @ A4
GDA2020 MGA Zone 56

N



Impact area (IA)
Impact assessment area (IAA)
Proposed River Release Pipeline - Trenchless
HDD launch / receival pit
Micro tunnel shaft
Indicative compound access
Indicative construction compounds

Figure B-3 Project impact area including indicative construction compounds

Sheet 3 of 5

0 100 200 300 m

Data sources: DCDB/DTDB - NSW DCS 2025
Basemap: MetroMap 2025

Scale: 1:8,000 @ A4
GDA2020 MGA Zone 56

N

Impact area (IA)
Impact assessment area (IAA)
Proposed River Release Pipeline - Trenchless
HDD launch / receival pit
Indicative compound access
Indicative construction compounds

Figure B-4 Project impact area including indicative construction compounds

Sheet 4 of 5

0 100 200 300 m

Data sources: DCDB/DTDB - NSW DCS 2025
Basemap: MetroMap 2025

Scale: 1:8,000 @ A4
GDA2020 MGA Zone 56

N

Impact area (IA)
Impact assessment area (IAA)
Proposed River Release Pipeline - Trenchless
HDD launch / receival pit
Indicative compound access
Indicative compound access routes
Indicative construction compounds
Indicative Parramatta River construction area

Figure B-5 Project impact area including indicative construction compounds

Sheet 5 of 5

0 100 200 300 m

Data sources: DCDB/DTDB - NSW DCS 2025
Basemap: MetroMap 2025

Scale: 1:8,000 @ A4
GDA2020 MGA Zone 56

N

Appendix C - Statutory compliance table

Appendix C - Statutory compliance

This appendix includes a range of tables listed below, to summarise where in the EIS key statutory matters are addressed for the project. The appendix supplements the information provided in Chapter 4 (Statutory context) and should be read in conjunction with that chapter. This appendix includes:

- Table C 1: Form and content requirements of the EIS (Environmental Planning and Assessment Regulation 2021)
- Table C 2: Statutory Compliance Table – Power to grant planning approval
- Table C 3: Statutory compliance table - Permissibility

  Table C 4: Statutory Compliance Table – Approvals and legislation that must be applied consistent with approved SSI (section 5.24 of Environmental Planning and Assessment Act)
- Table C 5: Statutory Compliance Table – Approvals not required for approved SSI (section 5.23 of Environmental Planning and Assessment Act)
- Table C 6: Statutory Compliance Table – Environment Protection and Biodiversity Conservation Act 1999
- Table C 7: Statutory Compliance Table – Other approvals
- Table C 8: Statutory Compliance Table – Preconditions to exercising the power to grant approval
- Table C 9: Statutory Compliance Table – Mandatory considerations
- Table C 10: Statutory Compliance Table – Other environmental planning instruments
- Table C 11: Land use zones

Table C 1: Form and content requirements of the EIS (Environmental Planning and Assessment Regulation 2021)

Requirement	Reference
Section 190 Form of environmental impact statement	
(1) An environmental impact statement must contain the following information—	
(a) the name, address and professional qualifications of the person who prepared the statement,	Refer to certification page of the document
(b) the name and address of the responsible person,	Refer to certification page of the document
(c) the address of the land—	Chapter 3 (Project Description)
(i) to which the development application relates, or	Detailed maps and plans (Appendix B)
(ii) on which the activity or infrastructure to which the statement relates will be carried out,	
(d) a description of the development, activity or infrastructure,	Chapter 3 (Project description)
(e) an assessment by the person who prepared the statement of the environmental impact of the development, activity or infrastructure, dealing with the matters referred to in this Division.	Chapters 7 to 23
(2) The person preparing the statement must have regard to—	
(a) for State significant development—the State Significant Development Guidelines, or	Not applicable

Requirement	Reference
(b) for State significant infrastructure—the State Significant Infrastructure Guidelines.	REAP EIS declaration Section 1.3 Section 5.1 Section 6.1 Section 18.2 Chapter 23 (Cumulative impacts) Section 24.6
(3) An environmental impact statement must also contain a declaration by a relevant person that—	
(a) the statement has been prepared in accordance with this Regulation, and	Refer to certification page of the document
(b) the statement contains all available information that is relevant to the environmental assessment of the development, activity or infrastructure, and	Refer to certification page of the document
(c) the information contained in the statement is not false or misleading, and	Refer to certification page of the document
(d) for State significant development or State significant infrastructure—the statement contains the information required under the Registered Environmental Assessment Practitioner Guidelines.	Refer to certification page of the document
Section 191 Compliance with environmental assessment requirements	
The environmental impact statement must comply with the environmental assessment requirements notified under section 176 or the Act, section 5.16(4).	SEARs table (Appendix A)
Section 192 Content of environmental impact statement	
(1) An environmental impact statement must contain the following—	

Requirement	Reference
(a) a summary of the environmental impact statement,	Executive summary
(b) a statement of the objectives of the development, activity or infrastructure,	Chapter 1 (Introduction)
(c) an analysis of feasible alternatives to the carrying out of the development, activity or infrastructure, considering its objectives, including the consequences of not carrying out the development, activity or infrastructure,	Chapter 2 (Strategic context)
(d) an analysis of the development, activity or infrastructure, including— (i) a full description of the development, activity or infrastructure, and (ii) a general description of the environment likely to be affected by the development, activity or infrastructure and a detailed description of the aspects of the environment that are likely to be significantly affected, and (iii) the likely impact on the environment of the development, activity or infrastructure, and (iv) a full description of the measures to mitigate adverse effects of the development, activity or infrastructure on the environment, and (v) a list of the approvals that must be obtained under another Act or law before the development, activity or infrastructure may lawfully be carried out,	(i) Chapter 3 (Project description) (ii), (iii), (iv) Chapters 7 to 23 (v) Chapter 4 (Statutory context)
(e) a compilation, in a single section of the environmental impact statement, of the measures referred to in paragraph (d)(iv),	Mitigation measures (Appendix E)
(f) the reasons justifying the carrying out of the development, activity or infrastructure, considering biophysical, economic and social factors, including the principles of ecologically sustainable development set out in section 193. Note— A cost benefit analysis may be submitted or referred to in the reasons justifying the carrying out of the development, activity or infrastructure.	Chapter 24 (Justification of the project)

Table C 2: Statutory Compliance Table – Power to grant planning approval

Statutory reference	Requirement	Relevance to project	Section of EIS
Environmental Planning and Assessment Act 1979 Section 5.12 Section 5.13	A State environmental planning policy may declare any development, or any class or description of development, to be State significant infrastructure. State significant infrastructure does not require development consent. Development of infrastructure, which does not require development consent under Part 4 of the Act, may be declared to be State significant infrastructure. Any State significant infrastructure may also be declared to be critical State significant infrastructure if it is of a category that is essential for the State for economic, environmental or social reasons.	The project has been declared State significant infrastructure under Division 5.2. An application has been submitted to the Minister for Planning and Public Spaces to declare the project to be critical State significant infrastructure.	Section 4.1 Section 1.3
Environmental Planning and Assessment Regulation 2021 Part 8	Outlines requirements of environmental impact statements including the content required.	The EIS has been prepared in accordance with this regulation.	Table 1 (consistency with form and contents) Section 5.6.1 (exhibition)
State Environmental Planning Policy (Planning Systems) 2021 Schedule 3, section 1(1)	Infrastructure or other development that would be an activity for which the proponent is also the determining authority and would, in the opinion of the proponent, require an environmental impact statement to be obtained under Part 5 of the Act is not State significant infrastructure unless it is development that may be carried out without development consent under Part 4 of the Act.	The project is permissible without consent (see Table C 3). Sydney Water would otherwise be the determining authority. Sydney Water has concluded that an EIS is required.	Section 4.1

Table C 3: Statutory compliance table - Permissibility

Statutory reference	Requirement	Relevance to project	Section of EIS
State Environmental Planning Policy (Transport and Infrastructure) 2021 Section 2.126(2) Section 2.126(6)	Development that may be carried out without consent.	The WRRF, Camellia pumping station, brine, transfer and river release pipelines, and ancillary infrastructure would be permitted without consent.	Section 4.1
State Environmental Planning Policy (Precincts – Central River City) 2021 Appendix 4	Appendix 4 of this State Environmental Planning Policy (SEPP) outlines permissibility requirements of developments within Sydney Olympic Park.	The river release pipeline is partially located within Sydney Olympic Park, which is declared as a State significant precinct under the Central River Precincts SEPP, therefore permissibility of the project is subject to the Precincts SEPP. However, the Planning Systems SEPP prevails to classify this pipeline as permissible without consent and declare it to be State significant infrastructure.	Section 4.1
State Environmental Planning Policy (Resilience and Hazards) 2021 Section 2.7	Development consent is required for development on land identified as coastal wetlands.	The river release pipeline traverses 'coastal wetlands' mapped under the Resilience and Hazards SEPP. However, section 2.126A of the Transport and Infrastructure SEPP provides that development consent is not required. This is discussed further below.	Section 4.1
State Environmental Planning Policy (Transport and Infrastructure) 2021 Section 2.7	Development within coastal wetlands that may be carried out without development.	The river release pipeline traverses 'Coastal Wetlands' mapped under the State Environment Planning Policy (Resilience and Hazards) 2021. The project meets the requirements of the section and would be permitted without consent.	Chapter 7 (Waterways assessment)

Table C 4: Statutory Compliance Table – Approvals and legislation that must be applied consistent with approved SSI (section 5.24 of Environmental Planning and Assessment Act)

Statutory reference	Requirement	Relevance to project	Section of EIS
Protection of the Environment Operations Act 1997 Section 43	An environment protection licence is required to be issued for certain purposes.	Sydney Water holds an environment protection licence (EPL 378) for the Northern Suburbs Sewage Treatment System including operation of the North Head WRRF. Camellia pumping station is part of this system and operates under this EPL. As the project would be connected to this system, Sydney Water intends to incorporate the project into the existing environment protection licence.	Section 4.1 Section 7.4.6
Roads Act 1993 Section 138	Consent from the appropriate roads authority is required before undertaking certain activities in, on or over a public road.	Consent under section 138 of the Roads Act 1993 is required, as the project involves construction within and across public roads.	Section 4.1 Section 14.2

Table C 5: Statutory Compliance Table – Approvals not required for approved SSI (section 5.23 of Environmental Planning and Assessment Act)

Statutory reference	Requirement	Relevance to project	Section of EIS
Environmental Planning and Assessment Act 1979 Section 5.23(1)	If the project were not State significant infrastructure, the following approvals would be required: • a permit under sections 201, 205 or 219 of the Fisheries Management Act 1994. • an approval under Part 4 of the Heritage Act 1977 and excavation permit under section 139 of the Heritage Act 1977. • a water use approval under section 89, a water management work approval under section 90 or an activity approval under section 91 of the Water Management Act 2000.	The project is State significant infrastructure and does not require these additional statutory approvals under the Fisheries Management Act 1994, the Heritage Act 1977 and the Water Management Act 2000.	Chapter 7 (Waterways) Chapter 15 (Non-Aboriginal heritage) Chapter 10 (Groundwater)

Table C 6: Statutory Compliance Table – Environment Protection and Biodiversity Conservation Act 1999

Statutory reference	Requirement	Relevance to project	Section of EIS
Environment Protection and Biodiversity Conservation Act 1999 Chapter 2, Part 3	The Commonwealth Minister must approve or decide that approval is not needed for an action that has, will have or is likely to have a significant impact on a matter of national environmental significance.	The project is not expected to have a significant impact on Matters of National Environmental Significance (MNES) listed under the EPBC Act. Therefore, the project does not require referral to the Commonwealth Minister for the Environment for impacts to MNES.	Section 4.1

Table C 7: Statutory Compliance Table – Other approvals

Statutory reference	Requirement	Relevance to project	Section of EIS
Heavy Vehicle National Law 2013 Part 4.5	An exemption permit is required if vehicles do not comply with the prescribed mass or dimension requirements of the Heavy Vehicle (Mass, Dimension and Loading) National Regulation 2013 or a State notice for NSW made under the Heavy Vehicle National Law (NSW)	Deliveries may be required using oversize and overmass vehicles, requiring an exemption permit. This would be confirmed in detailed design.	Section 4.1
Water Management Act 2000 Section 56, 91	A water access licence under the Water Management Act 2000 is required if dewatering volumes are greater than 3 ML/year of groundwater.	As of June 30, 2025, amendments to the Water Management Act 2000 allow public authorities constructing essential infrastructure to undertake the work without obtaining a water access licence.	Chapter 10 (Groundwater)

Table C 8: Statutory Compliance Table – Preconditions to exercising the power to grant approval

Statutory reference	Requirement	Relevance to project	Section of EIS
Environmental Planning and Assessment Act 1979 Section 5.18	The Planning Secretary is to give a report on the State significant infrastructure to the Minister for the purposes of the Minister's consideration of the application for approval to carry out the infrastructure. The report is to include the matters listed in section 5.18(2). Refer to Table C 9 for the matters the Minister must consider.	The project is State significant infrastructure. DPHI would follow the process after public exhibition of the EIS.	Section 4.1
Environmental Planning and Assessment Act 1979 Section 5.19	The proponent must make an application for the approval of the Minister under Division 5.2 to carry out State significant infrastructure and the Planning Secretary gives a report on the State significant infrastructure to the Minister. The Minister may approve or disapprove of the State significant infrastructure.	The application for the approval of the Minister to carry out the project as State significant infrastructure was lodged with the Planning Secretary on 31 July 2024, in accordance with section 5.15 of the Environmental Planning and Assessment Act 1979 (EP&A Act). This EIS is considered to meet the SEARs as outlined in Appendix A.	Section 4.1
Environmental Planning and Assessment Act 1979 Section 5.26 and 5.28	The EIS must be made publicly available for an approval of State significant infrastructure to be valid. The documents to be made publicly available are listed in section 5.28.	The Planning Secretary would place the EIS on public exhibition for at least 28 days in accordance with sections 5.26(2), 5.28 and clause 12 of Schedule 1 of the EP&A Act.	Section 4.1
Environmental Planning and Assessment Regulation 2021 Section 181(5)	Consent of the owner is not required for an application that is State significant infrastructure that will be carried out by a public authority or critical State significant infrastructure.	Landowner consent is not required to lodge the application for approval because Sydney Water is a public authority.	Section 4.1
Environmental Planning and Assessment Regulation 2021	The proponent of State significant infrastructure must arrange for the	Notice of the application would need to be given to landowners in accordance with this	Section 4.1

Statutory reference	Requirement	Relevance to project	Section of EIS
Section 181(6)	Minister to publish notice of the application on the NSW planning portal and give notice of the application to the owner of the land.	section of the Environmental Planning and Assessment Regulation. The application is published on the NSW planning portal in accordance with section 181(6)(a).	In accordance with section 181(6)(b)(ii), Sydney Water advertised the project in the local newspaper (Sydney Morning Herald and Daily Telegraph) on 28 January 2026.

Table C 9: Statutory Compliance Table – Mandatory considerations

Statutory reference	Requirement	Relevance to project	Section of EIS
Environmental Planning and Assessment Act 1979 Section 1.3	The objects of the EP&A Act are guiding principles that need to be considered by planning authorities when making decisions under the Act. This includes the principles of ecologically sustainable development (ESD) as specified in section 193 of the Environmental Planning and Assessment Regulation (refer below).	The project is consistent with the objects of the EP&A Act. The project SEARs ensure the EIS aligns with the EP&A Act and appropriate consideration of the project against these objects.	Section 4.1

Statutory reference	Requirement	Relevance to project	Section of EIS
Environmental Planning and Assessment Act 1979 Section 5.19	The Minister must consider: • the Planning Secretary's report on the infrastructure and the reports, advice and recommendations contained in the report • any advice provided by the Minister having portfolio responsibility for the proponent • any findings or recommendations of the Independent Planning Commission following a review in respect of the State significant infrastructure.	Sydney Water has made an application for approval to carry out State Significant Infrastructure. The Minister must consider these items prior to granting approval for the project.	Section 4.1
Environmental Planning and Assessment Regulation 2021 Section 193	The Minister must consider the principles of ecologically sustainable development which include (a) the precautionary principle, (b) inter-generational equity, (c) conservation of biological diversity and ecological integrity, and (d) improved valuation, pricing and incentive mechanisms. In applying the precautionary principle, decisions should be guided by careful evaluation to avoid serious or irreversible damage to the environment and an assessment of the risk-weighted consequences of various options.	The project is not expected to result in serious or irreversible damage to the environment. Sydney Water completed a comprehensive options analysis to identify the best strategic option to achieve the project objectives. Avoiding or minimising social and environmental impacts, while maximising project benefits, were key considerations in the options analysis. The project is consistent with the principles of ecologically sustainable development.	Chapter 2 (Strategic context) Chapter 24 (Justification of the project)
Biodiversity Conservation Act 2016 Section 7.14	The Minister must take into account the likely impact of a proposed development on biodiversity values as assessed in the biodiversity	A Biodiversity Development Assessment Report has been prepared (Appendix L). Potential biodiversity impacts are assessed within the EIS.	Chapter 11 (Terrestrial biodiversity)

Statutory reference	Requirement	Relevance to project	Section of EIS
	development assessment report. The relevant authority may further consider the likely impact of the proposed development on biodiversity values.		Biodiversity Development Assessment Report (Appendix L)
Sydney Olympic Park Authority Act 2001 Section 22(2)	The Minister must consider the consistency of the proposed development with the Environmental Guidelines for Sydney Olympic Park prepared by the Sydney Olympic Park Authority.	The potential impacts of the project assessed by the EIS encompass the key issues listed in section 4 of the Environmental Guidelines for Sydney Olympic Park as they relate to the current stage of the design and approval process. Issues relevant to the design and material selection would continue to be considered during design development.	Chapter 7 (Waterways) Chapter 9 (Soils and contamination) Chapter 14 (Transport, traffic and access) Chapter 18 (Social and economic) Chapter 20 (Sustainability and climate change) Chapter 21 (Waste management)

Table C 10: Statutory Compliance Table – Other environmental planning instruments

Statutory reference	Requirement	Relevance to project	Section of EIS
Environmental Planning and Assessment Act 1979 Section 5.22	Part 3 and environmental planning instruments do not apply to or in respect of State significant infrastructure, except where: • they declare infrastructure as State significant infrastructure or critical State significant infrastructure • they relate to section 3.16.	Environmental planning instruments and development control plans do not apply to the project as it is State Significant Infrastructure, subject to certain exceptions. Sydney Water has considered relevant environmental planning instruments and development control plans in preparation of this EIS.	Section 4.2

Statutory reference	Requirement	Relevance to project	Section of EIS
Parramatta Local Environmental Plan 2023 and **Ryde Local Environmental Plan 2014** Part 2	The LEPs sets out land use planning controls, including land zoning to determine what activities are permitted on different parcels of land.	The project has assessed permissibility to land use and zoning.	Section 4.1 Table 3 of this appendix (Appendix C)
State Environmental Planning Policy (Biodiversity and Conservation) 2021 Clause 6.6	Where the development is on land in a regulated catchment, the consent authority must be satisfied that that the effect on the quality of water entering a natural waterbody will be as close as possible to neutral or beneficial and the impact on water flow in a natural waterbody will be minimised. The consent authority must also consider the impacts of the development on water quality and quantity, among other matters listed in clause 6.6(1).	The project is located on land within a regulated catchment (Sydney Harbour Catchment). Impacts to water quality and hydrology have been assessed within the EIS. Release of high-quality treated water is predicted to contribute to improvements in the water quality of the Parramatta River.	Chapter 7 (Waterways)
State Environmental Planning Policy (Biodiversity and Conservation) 2021 Clause 6.7	Where the development is on land in a regulated catchment, the consent authority must consider and be satisfied that the matters listed in this clause have been addressed. These include: • adverse impacts on terrestrial, aquatic or migratory animals and vegetation is minimised • no adverse impact on aquatic reserves • erosion or sedimentation will be minimised • adverse impacts on wetlands will be minimised.	The project is located on land within a regulated catchment (Sydney Harbour Catchment). The project has been designed and located to avoid and minimise impacts on terrestrial, aquatic and migratory animals and vegetation where possible. For example, trenchless pipeline construction is proposed to minimise adverse impacts on wetlands. Impacts on watercourses and aquatic ecology have been assessed within the EIS.	Chapter 7 (Waterways) Chapter 11 (Terrestrial biodiversity)

Statutory reference	Requirement	Relevance to project	Section of EIS
State Environmental Planning Policy (Biodiversity and Conservation) 2021 Clause 6.8	Where the development is on land in a regulated catchment, the consent authority must be satisfied that the development will not have an adverse impact on water quality of a natural waterbody or the natural recession of floodwaters into riverine ecosystems when there is a flood. The consent authority must also consider the likely impact of the development on periodic flooding that benefits riverine ecosystems.	The project is located on land within a regulated catchment (Sydney Harbour Catchment). Release of treated water would improve the water quality of the Parramatta River.	Chapter 7 (Waterways) Chapter 8 (Flooding)
State Environmental Planning Policy (Biodiversity and Conservation) 2021 Clause 6.9	Where the development is on land in a regulated catchment, the consent authority must be satisfied that the development will maintain or improve public access to natural waterbodies for recreational purposes, that points of public access between natural waterbodies and the development will be stable and safe. The consent authority must also consider the likely impact of the development on recreational land uses in the regulated catchment and impacts to public access around foreshores, and natural waterbodies, watercourses, wetlands and riparian vegetation.	The project is located on land within a regulated catchment (Sydney Harbour Catchment). The project is predicted to contribute to improvements in water quality within Parramatta River, used for recreational activities. The EIS assesses impacts on recreational land uses, natural waterbody accessibility and waterways.	Chapter 7 (Waterways) Chapter 14 (Traffic, transport and access) Chapter 18 (Social and economic)

Statutory reference	Requirement	Relevance to project	Section of EIS
State Environmental Planning Policy (Biodiversity and Conservation) 2021 Clause 6.10	In deciding whether to grant development consent to development on land in a regulated catchment, the consent authority must consult with the council of each adjacent or downstream local government area on which the development is likely to have an adverse environmental impact.	The project is located on land within a regulated catchment (Sydney Harbour Catchment). City of Ryde and City of Parramatta councils have been consulted during preparation of the EIS.	Chapter 5 (Engagement)
State Environmental Planning Policy (Precincts – Central River City) 2021 Appendix 4	Appendix 4 of this SEPP outlines requirements for developments within the Sydney Olympic Park site.	The river release pipeline is partially located within Sydney Olympic Park, which is a State significant precinct under this SEPP. The project has been designed to avoid and minimise impacts on this precinct, and in discussion with the Sydney Olympic Park Authority.	Section 4.1 Mitigation measures (Appendix E)
State Environmental Planning Policy (Resilience and Hazards) 2021 Clause 2.7	The consent authority must be satisfied that sufficient measures have been, or will be, taken to protect or enhance, the biophysical, hydrological and ecological integrity of coastal wetlands.	Part of the project is located on land mapped as coastal wetlands and proximity area for coastal wetlands as defined by this SEPP. Chapter 7 (Waterways) details measures to minimise impacts on waterways and aquatic biodiversity. These measures are considered adequate to protect the biophysical, hydrological and ecological integrity of coastal wetlands.	Chapter 7 (Waterways)
State Environmental Planning Policy (Resilience and Hazards) 2021 Clause 3.12	The consent authority must consider the matters listed within the section, relating to hazardous or offensive development.	A preliminary hazard analysis was undertaken to assess the risks associated with chemical and material use and storage during operation of the project to inform the EIS. The project is not considered to be a hazardous or offensive industry.	Chapter 22 (Dangerous goods and hazardous development) Preliminary Hazard Analysis (Appendix V)

Statutory reference	Requirement	Relevance to project	Section of EIS
State Environmental Planning Policy (Resilience and Hazards) 2021 Clause 4.6	The consent authority must be satisfied that the land is suitable in its contaminated state - or will be suitable, after remediation - for the purpose for which the development is proposed to be carried out. The consent authority must also consider a report specifying findings of a preliminary investigation of the land concerned.	Detailed site investigations have been undertaken for the project. During construction, some disturbance of contaminated soil would be required. With the implementation of appropriate mitigation measures the environmental and human health risks would be low.	Chapter 9 (Soils and contamination) Soils and contamination assessment (Appendix J)
Parramatta Development Control Plan 2023	The Parramatta Development Control Plan supplements the Parramatta Local Environmental Plan 2023 and provides more detailed provisions to guide development.	Sydney Water has sought to align with the relevant objectives of the City of Parramatta Development Control Plan (2023) where reasonable and feasible.	Chapter 5 (Engagement) Chapter 14 (Traffic, transport and access)

Table C 11: Land use zones

Project element	Land zoning
Camellia-Rosehill WRRF	E5 – Heavy Industrial
Camellia pumping station	E3 – Productivity Support
Brine pipeline	E3 – Productivity Support E4 – General Industrial E5 – Heavy Industrial RE1 – Public Recreation RE2 – Private Recreation SP2 – Infrastructure (Rail Infrastructure Facility, Educational Establishment, Classified Road)

Project element	Land zoning
	R2 – Low Density Residential W2 – Recreational Waterways
Transfer pipeline	E3 – Productivity Support E5 – Heavy Industrial RE2 – Private Recreation SP2 – Infrastructure (Rail Infrastructure Facility)
River release pipeline	C2 – Environmental Conservation C3 – Environmental Management E4 – General Industrial E5 – Heavy Industrial MU1 – Mixed Use R3 – Medium Density Residential R4 – High Density Residential RE1 – Public Recreation SP2 – Infrastructure (Classified Road, Railways) W1 – Natural Waterways

Appendix D - Community engagement table

Appendix D- Community engagement table

Table D 1: Summary of engagement activities

Engagement activities	Detail
Liaison with stakeholders and community for project feedback, site walkovers and investigations	• one project briefing with City of Canada Bay Council • 10x project briefings with City of Parramatta Council • 5x project briefings with City of Ryde Council • 5x project briefings with the Environment Protection Authority (NSW EPA) • one project briefings with Great River City • 16x project briefings with Department of Planning Housing and Infrastructure (DPHI) • one joint agency briefing. Attendees included: – Department of Planning, Housing and Infrastructure (DPHI) (Transport and Water Assessment team and Camellia Rosehill precinct rezoning team) – NSW EPA – NSW Health – Western Sydney Local Health District – Department of Climate Change, Energy the Environment and Water (DCCEEW) (Biodiversity, Science and Conservation team and Water Strategy team) – Transport for NSW (TfNSW) – Paramatta Light Rail (PLR) Stage 2 – Sydney Metro – City of Parramatta Council – NSW State Emergency Service (NSW SES) • 2x project briefings with NSW Maritime • one project briefing Department of Primary Industries (DPI) (Fisheries) (now called Department of Primary Industries and Regional Development (DPIRD)) • 4x project briefings with Parramatta River Catchment Group • 13x project briefings with TfNSW including: – Transport Asset Management (TAM) (formerly known as Transport Asset Holding Entity (TAHE)) – PLR Stage 2 – Traffic Management Centre (TMC) • 2x project briefings with Sydney Metro • 5x project briefings with Sydney Olympic Park Authority (SOPA) • 1x joint briefing with the NSW SES, DPHI and NSW EPA • 25x project briefings with landowners, sensitive receivers community groups and businesses.

Engagement activities	Detail
Preparation and distribution of a project introduction newsletter	• distributed in Camellia, Newington, Meadowbank and surrounding areas on 30 September 2024 to: – 18,886 private letterboxes – 1,182 business letterboxes.
Preparation and distribution of a project impacts newsletter	• distributed in Camellia, Newington, Meadowbank and surrounding areas between 19 January 2025 - 26 January 2025 to: – 18,886 private letterboxes – 1,182 business letterboxes.
Preparation and distribution of a site investigation notification	• distributed in Camellia, Newington, Meadowbank and surrounding areas on 2 April 2025 to: – 18,886 private letterboxes – 1,182 business letterboxes.
Preparation and distribution of a project flyer to promote community drop-in	• distributed in Meadowbank and surrounding area on 15 March 2025 to: – 5,719 private letterboxes – 121 business letterboxes.
Preparation and distribution of a project flyer to promote community pop-up display	• distributed in Meadowbank and surrounding area on 6 June 2025 to: • 5,719 private letterboxes • 121 business letterboxes.
Project awareness signage to promote community drop-in	• 6x promotional boards located in Meadowbank Park, Memorial Park and Meadowbank Wharf from 18 March 2025 to 28 March 2025.
Ad hoc emails and phone calls	• 131 interactions.
First Nations consultation	• one meeting with Dharug Custodian Aboriginal Consultation on 27 February 2025 • one meeting with Dharug Strategic Management Group on 6 March 2025 • one on Country Listening Session at Meadowbank Park on 18 March 2025.
Community survey	• ‘have your say’ survey from July 2024 to February 2025: – 25 survey responses • qualtrics survey from May 2025 to September 2025: – 6 responses.

Engagement activities	Detail
Door knocking	• Devon Street, Unwin Street and Colquhoun Street near future Camellia-Rosehill Wastewater Resource Recovery Facility (WRRF) on 3 September 2024: – 22 interactions – 102 'Sorry We Missed You' cards letterbox dropped • Silverwater Pipeline Alignment on 22 January 2025: – 22 interactions – 102 Sorry We Missed You cards letterbox dropped • Devon Street, Unwin Street and Colquhoun Street near future Camellia-Rosehill WRRF on 12 February 2025: – 6 interactions • Newington pipeline alignment on 1 April 2025: – 20 interactions – 88 Sorry We Missed You cards letterbox dropped.
Community pop-up displays	• Wentworth Point markets on 4 October 2024: – 29 interactions • Ryde Wharf markets on 27 October 2024: – 24 interactions • Ryde Wharf markets on 22 June 2025: – 34 interactions.
Webinars	• Webinar 1 on 29 January 2025: – one attendee • Webinar 2 on 18 February 2025: – 2 attendees.

Engagement activities	Detail
Facebook and Instagram advertising	• project awareness campaign from 28 October 2024 to 11 November 2024: – impressions: 335,642 – reach: 74,824 – clicks: 3,461 • webinar promotion campaign from 12 February 2025 to 17 February 2025: – impressions: 89,096 – reach: 38,551 – clicks: 552 • community drop-in promotion campaign from 16 June 2025 to 22 June 2025: – impressions: 51,076 – reach: 15,864 – clicks: 424.
Visits to the project web page	• Sydney Water talk: 3,556 from 1 July to 5 May 2025 • Sydney Water project webpage: 2,621 from 15 May 2025 to 21 November 2025

Government agencies, local councils and key stakeholders

Sydney Water consulted a range of NSW Government agencies, local councils and key stakeholders to inform them about project scope and seek feedback about the proposed assessment approach for the EIS. Sydney Water also presented key findings of relevant studies where they were available. Table D 2 summarises the results of this consultation and how Sydney Water has responded to issues raised in the Environmental Impact Statement (EIS). Sydney Water also works closely with many of these agencies at an executive level, including conversations about the project.

Table D 2: Engagement outcomes with government agencies, local councils and key stakeholders

Stakeholder	Key issues raised	Response	Where addressed in the Environmental Impact Statement
Portfolio Minister - Minister for Water	• No issues raised	• no action required. Sydney Water would carry out further engagement if required, during detailed design and construction.	• N/A.
Member for Ryde	• No issues raised	• no action required. Sydney Water would carry out further engagement if required, during detailed design and construction.	• N/A.
Member for Parramatta	• No issues raised	• no action required. Sydney Water would carry out further engagement if required, during detailed design and construction.	• N/A.
Member for Granville	• No issues raised	• no action required. Sydney Water would carry out further engagement if required, during detailed design and construction.	• N/A.
Infrastructure NSW	• No issues raised	• no action required. Sydney Water would carry out further engagement if required, during detailed design and construction.	• N/A.

Stakeholder	Key issues raised	Response	Where addressed in the Environmental Impact Statement
Transport for NSW (TfNSW) • PLR Stage 1 • PLR Stage 2 • TAM • TMC • TfNSW Rowing Sterring Committee	• Interface with other major projects and potential for cumulative impacts • disruptions to users of Hill Road from the project, PLR Stage 2 and City of Parramatta Council led upgrades • Impacts of the project on existing transport infrastructure • river release construction impacts to John Whittam bridge. • degradation of road conditions from multiple major projects • loss of parking during construction • travel delays due to congestion and detours during construction • impacts to buses during construction due to road closures • impacts to ferry services during construction and operation.	• Sydney Water has designed the river release structure to avoid directly impacting John Whitton Bridge. • impacts to some roads would be required for the installation of pipelines. Constructing pipelines in roads ensures that they can be accessed in the future for essential maintenance and minimises private property impacts. Sydney Water would use trenchless methods for construction where possible to avoid unacceptable disruptions to main roads. • Sydney Water has sought to minimise impacts to heritage items by designing the project to avoid these items. Where construction is required in Western Sydney University and Memorial Park, the project has been developed to avoid impacting significant heritage features of both sites. • during scoping, feedback from City of Parramatta Council and TfNSW indicated there would be significant impacts where the project would interface with Stage 1 and Stage 2 of PLR, for any open trenching work along Hill Road. To address this concern, a deep horizontal directional drill would be used to travel under Hill Road to Meadowbank Park. • Sydney Water would continue to liaise with Sydney Olympic Park during detailed construction planning to understand traffic and access requirements during major events • Sydney Water has been and would continue to work with TfNSW and City of Parramatta Council on the coordination of construction works on Hill Road. This would include investigating opportunities to collocate infrastructure and align construction programs. • constraints of the transport network have been considered in the design development for the project. Sydney Water has	• Chapter 3 – Project description • Chapter 14 – Traffic, transport and access • Chapter 15 – Non-Aboriginal Heritage • Chapter 23 – Cumulative impacts.

Stakeholder	Key issues raised	Response	Where addressed in the Environmental Impact Statement
		minimised impacts to significant roads by adjusting construction methodologies to include trenchless methods. Where open trenching has been required these routes have been selected in areas where detours can be implemented. • there may be occasions where bus stops are required to be temporarily relocated, or bus services diverted around construction works. Sydney Water would continue to work with TfNSW and relevant bus operators to minimise disruptions to bus services during road closures. • Sydney Water would work with ferry services during construction to ensure impacts to transport services are minimised.	
Sydney Metro	• interface with Sydney Metro Camellia site. There is an existing metro dive site adjacent to the Rosehill Racecourse, in close proximity to the future WRRF site • potential impacts regarding local flooding and modeling used for flooding assessments.	• the river release pipeline at Rosehill has been designed to avoid interacting with the nearby Sydney Metro West tunnels • Sydney Water would continue to carry out engagement with Sydney Metro during design development to further avoid and minimise potential impacts.	• Chapter 2 – Strategic context • Chapter 8 – Flooding • Chapter 14 – Traffic, transport and access • Chapter 23 – Cumulative impacts.

Stakeholder	Key issues raised	Response	Where addressed in the Environmental Impact Statement
Great River City	• impacts to operation of PLR during construction • no significant issues were raised during consultation with Great River City.	• no action required. Sydney Water would carry out further engagement if required, during detailed design and construction.	• Chapter 2 – Strategic context • Chapter 14 – Traffic, transport and access • Chapter 23 – Cumulative impacts.
NSW EPA	• impacts of river release pipeline during construction and operation to Parramatta River and local waterways • management of residual contamination at the future WRRF in Camellia and Rosehill.	• Sydney Water has been managing residual contamination at the Camellia-Rosehill WRRF site under the site environmental management works approved under a Review of Environmental Factors • to reduce the risk of impacts for waterways and public health for swimming sites downstream, the project selected the deeper, alternative water release point near Meadowbank Park.	• Chapter 7 – Waterways • Chapter 8 – Flooding • Chapter 9 – Soils and contamination • Chapter 19 – Human health • Chapter 21 – Waste management.

Stakeholder	Key issues raised	Response	Where addressed in the Environmental Impact Statement
DPHI • Transport and water assessment team • Camellia-Rosehill Precinct rezoning team • State- led rezoning team	• alignment of the project with relevant government priorities, projections, strategies and plans • compliance with standards, policy and regulatory requirements, including planning requirements • integration with planned public infrastructure projects • impacts on existing public infrastructure including roads and transport and any heritage items • management of contamination at the Camellia-Rosehill WRRF site • impacts from the project on flooding in the Camellia-Rosehill precinct (including nearby major infrastructure projects).	• Sydney Water has developed the project in consultation with DPHI, City of Ryde Council, City of Parramatta Council and other relevant Government stakeholders to align with the relevant strategic planning priorities and objectives • Sydney Water has been managing residual contamination at the Camellia-Rosehill WRRF site under the site environmental management works outlined in Section 1.8.1.1. • Sydney Water has considered feedback provided by key stakeholders including Sydney Metro on the potential flood hazards within the Camellia-Rosehill precinct. In response to these concerns, Sydney Water has designed the Camellia-Rosehill WRRF site to avoid causing adverse flood impacts to neighbouring properties. Sydney Water would continue to liaise with Sydney Metro, DPHI and PLR and City of Parramatta Council throughout the detailed design phase of the project.	• Chapter 1 – Introduction • Chapter 2 - Strategic Context • Chapter 4 – Statutory Context • Chapter 8 - Flooding • Chapter 9 – Soils and contamination • Chapter 17 – Visual, landscape and place making • Chapter 18 – Social impacts • Chapter 23 – Cumulative impacts.

Stakeholder	Key issues raised	Response	Where addressed in the Environmental Impact Statement
Government Architect NSW	• the WRRF design should consider: • views and vistas of the future Camellia-Rosehill precinct • amenity impacts (including odour and noise) • opportunities for active transport routes • increasing tree canopy and potential mangrove restoration • global standards of design excellence.	• the concept design for the Camellia-Rosehill WRRF would: – not substantially impact significant views and vistas in the future Camellia-Rosehill precinct – locate odour and noise generating activities in the centre of the site and away from sensitive receivers – not inhibit new footpaths on Devon Street – retain existing vegetation on the western boundary of the site and safeguard areas for vegetation planting • the concept design for the Camellia-Rosehill WRRF would not include: – active transport routes on waterfront areas and through the WRRF site. The WRRF site does not share a boundary with Duck River and an active transport link through the WRRF would not be safe for the public and operational staff – rehabilitation of mangroves. The project avoids impacts to estuarine vegetation including mangroves. global examples of other similar facilities have been considered in the concept design.	• Chapter 2 - Strategic Context • Chapter 17 – Visual, landscape and place making.

Stakeholder	Key issues raised	Response	Where addressed in the Environmental Impact Statement
NSW Department of Climate Change, Energy, the Environment and Water (NSW DCCEEW) • Heritage and Regulation group • Conservation and Programs team • Water team	• flooding in the Camellia-Rosehill precinct	• Sydney Water has considered feedback provided by key stakeholders including Sydney Metro on the potential flood hazards within the Camellia-Rosehill precinct. In response to these concerns, Sydney Water has designed the Camellia-Rosehill WRRF site to avoid causing adverse flood impacts to neighbouring properties. Sydney Water would continue to liaise with Sydney Metro, DPHI and PLR and City of Parramatta Council throughout the detailed design phase of the project • Sydney Water acknowledges that there is an existing drainage issue on Devon Street, at the frontage of the WRRF site that results in localized flooding during severe weather events. Sydney Water is currently working with City of Parramatta Council on resolving this issue. The final design of the WRRF site would include new drainage infrastructure to manage and reduce flows on Devon Street during weather events.	• Chapter 7 – Waterways • Chapter 8 – Flooding.
DPI Fisheries / DPIRD	• no key concerns were raised during consultation.	• Sydney Water would carry out further engagement, during detailed design and construction.	• Chapter 7 – Waterways.
Heritage NSW	• no key concerns were raised during consultation with Heritage NSW.	• no action required. Sydney Water would carry out further engagement if required, during detailed design and construction.	• N/A.
National Parks and Wildlife Services	• no key concerns were raised during consultation with National Parks and Wildlife Services.	• no action required. Sydney Water would carry out further engagement if required, during detailed design and construction.	• N/A.

Stakeholder	Key issues raised	Response	Where addressed in the Environmental Impact Statement
NSW Maritime	• impacts of river release pipeline during construction and operation to ferry services at Meadowbank Ferry Wharf and surrounds.	• Sydney Water would work with ferry services during construction to ensure impacts to transport services are minimised.	• Chapter 14 – Traffic, transport and access.
Transdev	• impacts of river release pipeline during construction and operation to ferry services at Meadowbank Ferry Wharf and surrounds.	• Sydney Water would work with ferry services during construction to ensure impacts to transport services are minimised.	• Chapter 14 – Traffic, transport and access.
NSW SES	• flooding in the Camellia-Rosehill precinct.	• Sydney Water has considered feedback provided by key stakeholders including Sydney Metro on the potential flood hazards within the Camellia-Rosehill precinct. In response to these concerns, Sydney Water has designed the Camellia-Rosehill WRRF site to avoid causing adverse flood impacts to neighbouring properties. Sydney Water would continue to liaise with Sydney Metro, DPHI and PLR and City of Parramatta Council throughout the detailed design phase of the project • Sydney Water acknowledges that there is an existing drainage issue on Devon Street, at the frontage of the WRRF site that results in localized flooding during severe weather events. Sydney Water is currently working with City of Parramatta Council on resolving this issue. The final design of the WRRF site would include new drainage infrastructure to manage and reduce flows on Devon Street during weather events.	• Chapter 8 – Flooding.

Stakeholder	Key issues raised	Response	Where addressed in the Environmental Impact Statement
Utilities • Jemena • Endeavour Energy	• investigation and potential removal of cables located within WRRF site boundary • further engagement regarding connections and electrical design would continue as the project progresses • potential impacts to utilities under roads due to degraded road conditions from multiple major projects • road degradation at the WRRF site entry may impact gas mains.	• Sydney Water has temporarily rectified road degradation through installation of steel plating. • the project has been designed to avoid changes to utility infrastructure where possible. Some utility works would be required to connect the Camellia-Rosehill WRRF site to the electricity grid. There may be some temporary disruptions to neighbouring properties while this occurs. Sydney Water would work with Endeavour Energy and Jemena to coordinate this work to avoid power supply disruptions to neighbours.	• Chapter 2 – Strategic context • Chapter 3 – project description.
SOPA	• alignment of pipeline through SOPA and potential construction impacts to the area • cumulative impact of various construction projects occurring in the SOPA area.	• impacts to some roads would be required for the installation of pipelines. Constructing pipelines in roads ensures that they can be accessed in the future for essential maintenance and minimises private property impacts. Sydney Water would use trenchless methods for construction where possible to avoid unacceptable disruptions to main roads • during scoping, feedback from City of Parramatta Council and TfNSW indicated there would be significant impacts where the project would interface with Stage 1 and Stage 2 of PLR, for any open trenching work along Hill Road. To address this concern, a deep horizontal directional drill would be used to travel under Hill Road to Meadowbank Park	• Chapter 2 – Strategic context • Chapter 14 – Traffic, transport and access.

Stakeholder	Key issues raised	Response	Where addressed in the Environmental Impact Statement
		• Sydney Water would continue to liaise with Sydney Olympic Park during detailed construction planning to understand traffic and access requirements during major events • Sydney Water has been and would continue to work with TfNSW and City of Parramatta Council on the coordination of construction works on Hill Road. This would include investigating opportunities to collocate infrastructure and align construction programs.	
Councillors • City of Parramatta Council • City of Ryde Council • City of Canada Bay Council	• no key concerns were raised during consultation with local government Councillors	• no action required. Sydney Water would carry out further engagement if required, during detailed design and construction.	• N/A.
City of Parramatta Council	• alignment of the project with relevant government priorities, projections, strategies and plans • disruptions to users of Hill Road from the project, PLR Stage 2 and City of Parramatta Council led upgrades • localised flooding for the Camellia-Rosehill WRRF site • access to recycled water for use for green spaces	• Sydney Water has developed the project in consultation with DPHI, City of Ryde Council, City of Parramatta Council and other relevant Government stakeholders to align with the relevant strategic planning priorities and objectives • Sydney Water has been and would continue to work with TfNSW and City of Parramatta Council on the coordination of construction works on Hill Road. This would include investigating opportunities to collocate infrastructure and align construction programs • Sydney Water would continue to work with City of Parramatta Council to ensure that impacts to the delivery of the Duck River Nature Trail project are minimised where possible	• Chapter 2 – Strategic context • Chapter 7 - Waterways • Chapter 14 – Traffic, transport and access • Chapter 17 – Visual, landscape and place making

Stakeholder	Key issues raised	Response	Where addressed in the Environmental Impact Statement
	• impacts for the Duck River Nature Trail Project • impacts for Pierre de Coubertin park with the establishment of a site compound • Sydney Water landowner consent regarding updated development for land owned by VE Property • impacts of river release pipeline during construction and operation to Parramatta River and local waterways • support for water treatment solutions that improve water quality in Parramatta River • the design of the project should align with the City of Parramatta Development Control Plan (2023).	• Sydney Water has considered feedback provided by key stakeholders including Sydney Metro on the potential flood hazards within the Camellia-Rosehill precinct. In response to these concerns, Sydney Water has designed the Camellia-Rosehill WRRF site to avoid causing adverse flood impacts to neighbouring properties. Sydney Water would continue to liaise with Sydney Metro, DPHI and PLR and City of Parramatta Council throughout the detailed design phase of the project • ongoing engagement would be carried out with City of Parramatta Council regarding impacts to park users including sports clubs and local schools. Sydney Water would seek feedback on impacts, peak usage periods, and understand preferences for consultation • Sydney Water acknowledges that there is an existing drainage issue on Devon Street, at the frontage of the WRRF site that results in localized flooding during severe weather events. Sydney Water is currently working with City of Parramatta Council on resolving this issue. The final design of the WRRF site would include new drainage infrastructure to manage and reduce flows on Devon Street during weather events • Sydney Water has consulted with VE Property, Viva Energy and DPHI to understand the various interests and to ensure alignment for government organisations when providing landowner consent for updated development applications. The updated development application (DA0 was required after Sydney Water acquired a portion of land owned by VE Property • to reduce the risk of impacts for waterways and public health for swimming sites downstream, the project selected the	• Chapter 18 – Social impacts • Chapter 19 – Human health • Chapter 23 – Cumulative impacts.

Stakeholder	Key issues raised	Response	Where addressed in the Environmental Impact Statement
		deeper, alternative water release point near Meadowbank Park • preparation of River Release FAQs available to the public on the project webpage to build community awareness of the Project methodology • under section 5.22 (2) of the Environmental Planning and Assessment Act 1979, environmental planning instruments (including Development Control Plans) do not apply to State Significant Infrastructure projects. Sydney Water has sought to align with the relevant objectives of the City of Parramatta Development Control Plan (2023) where reasonable and feasible.	
City of Ryde Council	• alignment of the project with relevant government priorities, projections, strategies and plans • compliance with standards, policy and regulatory requirements, including planning requirements • impacts and benefits to local community throughout project delivery • access to recycled water for use for green spaces • impacts to the development of the Meadowbank Park Masterplan involving new facilities and relocation of some existing sporting activities. CoR masterplan work is	• Sydney Water has developed the project in consultation with DPHI, City of Ryde Council, City of Parramatta Council and other relevant Government stakeholders to align with the relevant strategic planning priorities and objectives • Sydney Water is continuing to consult with City of Ryde Council on the Meadowbank Park Masterplan. Sydney Water would work with City of Ryde Council to mitigate potential impacts during construction and operation • Sydney Water is continuing to consult with City of Ryde Council on the Meadowbank Park Masterplan. Sydney Water would work with City of Ryde Council to mitigate potential impacts during construction and operation • Sydney Water has adjusted the location of construction compounds in response to feedback received by City of Ryde Council	• Chapter 2 – Strategic context • Chapter 7 - Waterways • Chapter 14 – Traffic, transport and access • Chapter 18 – Social impacts • Chapter 19 – Human health • Chapter 23 – Cumulative impacts.

Stakeholder	Key issues raised	Response	Where addressed in the Environmental Impact Statement
	planned to start late 2024 and continue to 2031. • concerns choice regarding river release point at Meadowbank Park near John Whitton bridge over Wentworth Point.	• Sydney Water has adjusted the construction methodology for Meadowbank Park in response to feedback received by City of Ryde Council, park users and local residents. This has included: – limiting the size of construction compounds to cover one sports field rather than multiple – co-locating the river release pipeline along the existing waterway crossings at Vineyard Creek and Charity Creek to reduce visual impacts – adjusting the pipeline installation methodology to open trenching which can be carried out faster than trenchless methods • ongoing engagement would be carried out with park users including sports clubs and local schools to seek feedback on impacts, peak usage periods, and understand preferences for consultation • ongoing consultation with City of Ryde Council regarding enhancements to existing public amenity in Meadowbank Park • to reduce the risk of impacts for waterways and public health for swimming sites downstream, the project selected the deeper, alternative water release point near Meadowbank Park • preparation of River Release FAQs available to the public on the project webpage to build community awareness of the Project methodology.	

Stakeholder	Key issues raised	Response	Where addressed in the Environmental Impact Statement
City of Canada Bay Council	• no key concerns were raised during consultation with City of Canada Bay Council.	• no action required. Sydney Water would carry out further engagement if required, during detailed design and construction.	• N/A.

Impacted properties and sensitive receivers

The project team met individually with the impacted landowners (two commercial properties) to provide an update on the project's development at the concept design phase. This activity was purposefully scheduled into the engagement program to ensure impacted landowners were kept informed and had an opportunity to express their concerns and feedback about the design and its potential impacts to their properties. Overall, the sentiment and feedback of landowners was largely consistent across the group. Whilst supportive of the project, landowners were particularly concerned about potential impacts to the value of their land and its development potential as a result of the pipeline alignment. Details of these discussions are summarised in Table D 3.

Table D 3: Engagement outcomes with impacted properties and sensitive receivers

Stakeholder	Key issues raised	Response	Where addressed in the Environmental Impact Statement
VE Property and Viva Energy	• impacts to property during construction at the future WRRF of a retaining wall along the boundary of VE Property • receival of landowners consent from Sydney Water regarding updated DA of adjoining site to the WRRF • concerns regarding interface with construction at the future WRRF.	• Sydney Water would continue to talk directly to stakeholders as design and construction progresses about timing and details of impacts on their properties. Sydney Water has well defined processes for working with landowners on construction access and creation of easements.	• Chapter 3 – Project description.
175 James Ruse Drive Business Complex	• concerns included disruption to businesses, easement process, if necessary and impacts to longer term plans to develop the site.	• Sydney Water would continue to talk directly to stakeholders as design and construction progresses about timing and details of impacts on their properties. Sydney Water has well defined processes for working with landowners on construction access and creation of easements.	• Chapter 3 – Project description.

Stakeholder	Key issues raised	Response	Where addressed in the Environmental Impact Statement
URBNSURF	• construction and traffic impacts of river release pipeline on Hill Road to business operation. • impacts from use of P5 carpark (Pod A to Pod C) for the use of construction compounds	• constraints of the transport network have been considered in the design development for the project. Sydney Water has minimised impacts to significant roads by adjusting construction methodologies to include trenchless methods. Where open trenching has been required these routes have been selected in areas where detours can be implemented. • Sydney Water would continue to engage with impacted businesses to understand specific needs such as parking and access requirements.	• Chapter 3 – Project description • Chapter 14 – Traffic, transport and access.
Rosehill Gardens Racecourse (Australian Turf Club)	• impacts to property during construction of the brine pipeline • noise, vibration, dust and construction impacts to horses stabled on the property.	• Sydney Water has proactively identified sensitive receivers who have the potential to impacted by noise and vibration. Where there is potential for impacts, Sydney Water would work with impacted stakeholders to minimise impacts. This may include but not be limited to: – using alternative construction machinery and equipment – adjusting work hours to suit needs of stakeholders. – Sydney Water would investigate the feasibility of these adjustments through consultation with impacted stakeholders during detailed design and construction • Sydney Water consulted with the Australian Turf Club on the pipeline alignment and incorporated their preferences for options to minimise disruption to race days and horses • potential impacts to horses from dust would be minimised through implementation of the project's mitigation measures, as well as the CEMP.	• Chapter 3 – Project description • Chapter 12 – Air quality and odour • Chapter 13 – Noise and vibration.

Stakeholder	Key issues raised	Response	Where addressed in the Environmental Impact Statement
Childcare centre – Explore & Develop	• concerns regarding traffic impacts during pick up and drop off hours • concerns regarding dust and contamination • supportive of trenchless construction.	• Sydney Water would continue to work with businesses and residents on streets where open trenching works are proposed to understand their specific needs for transport and access • potential impacts from dust and contamination would be minimised through implementation of the project's mitigation measures, as well as the CEMP.	• Chapter 14 – Traffic, transport and access • Chapter 9 – Soils and contamination.
Downer Rosehill Sustainable Resource Centre	• concerns regarding localised flooding and traffic impacts to truck routes.	• constraints of the transport network have been considered in the design development for the project. Sydney Water has minimised impacts to significant roads by adjusting construction methodologies to include trenchless methods. Where open trenching has been required these routes have been selected in areas where detours can be implemented • Sydney Water would continue to work with businesses and residents on streets where open trenching works are proposed to understand their specific needs for transport and access • Sydney Water has designed the Camellia-Rosehill WRRF site to avoid causing adverse flood impacts to neighbouring properties • Sydney Water acknowledges that there is an existing drainage issue on Devon Street, at the frontage of the WRRF site that results in localized flooding during severe weather events. Sydney Water is currently working with City of Parramatta Council on resolving this issue. The final design of the WRRF site would include new drainage infrastructure to manage and reduce flows on Devon Street during weather events.	• Chapter 8 – Flooding • Chapter 14 – Traffic, transport and access.

Stakeholder	Key issues raised	Response	Where addressed in the Environmental Impact Statement
Goodman	• localised flooding for the Camellia-Rosehill WRRF site.	• Sydney Water has designed the Camellia-Rosehill WRRF site to avoid causing adverse flood impacts to neighbouring properties. • Sydney Water acknowledges that there is an existing drainage issue on Devon Street, at the frontage of the WRRF site that results in localized flooding during severe weather events. Sydney Water is currently working with City of Parramatta Council on resolving this issue. The final design of the WRRF site would include new drainage infrastructure to manage and reduce flows on Devon Street during weather events.	• Chapter 8 – Flooding.
Western Sydney University – Parramatta South Campus (WSU)	• no concerns were raised in consultation with WSU requiring mitigation as construction of the brine pipeline would occur on WSU land in existing Sydney Water easements and have minimal impacts to campus operation.	• Sydney Water has sought to minimise impacts by avoiding significant heritage features in the site • Sydney Water would continue to liaise with WSU during detailed construction planning and during construction.	• Chapter 15 – Non-Aboriginal heritage.
RODE microphones	• concern for potential noise and vibration impacts to business operation.	• Sydney Water would continue to work with RODE microphones on ways to minimise potential noise and vibration impacts to business operation as part of detailed construction planning.	• Chapter 13 – Noise and vibration.

Aboriginal and First Nations community

Engagement with the Aboriginal and First Nations community was carried out by Joy Horton consulting to inform place and design and also build understanding of cultural values and significance in the Project area. A summary of the feedback provided by Dharug clan members is included in Table D 4.

This engagement was delivered separately to engagement with Registered Aboriginal Parties for the Aboriginal Cultural Heritage Assessment (Appendix Q).

Table D 4: Engagement outcomes with Aboriginal and First Nations groups

Stakeholder	Key issues raised	Response	Where addressed in the Environmental Impact Statement
First Nations (Dharug Clans)	• impacts of river release pipeline during construction and operation to Parramatta River • areas in the proposed construction footprint hold strong cultural significance for First Nations communities, including: – Parramatta River, the location of the river release holds central significance in the Dharug dreaming – Duck Creek and Duck River carry deep spiritual value • truth telling around the use of water during the colonial era, resulting in trauma and unresolved grief	• Sydney Water recognises the importance of waterways, including the Parramatta River on Aboriginal cultural heritage. The project would protect and respect this value through contributing to improved waterway health in the Parramatta River. During construction, waterway health would be protected through the implementation of project mitigation measures as well as the CEMP to minimise sediment run off, erosion and contamination of nearby waterways • Sydney Water has designed the project, including the pipeline alignments to avoid impacts to locations of known Aboriginal cultural heritage significance and value. As a result, no impacts to known Aboriginal heritage objects and sites are expected • Sydney Water would prioritise collaboration throughout the detailed design process to deliver a design that is reflective of Aboriginal Cultural Heritage. This may include but not be limited to the use of interpretive signage along Devon Street within the public interface zone to provide community	• Chapter 7 – Waterways • Chapter 11 – Terrestrial biodiversity • Chapter 16 – Aboriginal heritage • Chapter 17 – Visual, landscape and place making • Chapter 18 – Social impacts

Stakeholder	Key issues raised	Response	Where addressed in the Environmental Impact Statement
	• the design of the project should: – include cultural infrastructure – recognise the cultural significance of the Parramatta River as an important place of trade, meeting, ceremony and migration, and should highlight the sacred value of the longfin eel – provide co-designed public spaces with cultural signage and interpretive landscape design reflective of cultural value – consider multi-generational education tools to share Aboriginal cultural knowledge with the community – Meadowbank Park was identified as having potential to support cultural spaces such as yarning circles, memorialisation and other visual markers such as tree rings or ceremonial circles • supportive of the reuse of water and efforts to reduce ocean outfalls.	education on historical context of the site and surrounding waterways • vegetation plantings within the WRRF site would prioritise planting native species that are appropriate for the site and would not adversely impact waterways. Construction and operation of the site would be carefully managed to avoid impacts to these waterways • while the Place and Design Framework (Appendix R) applies specifically to the WRRF, Sydney Water acknowledges the feedback provided on Meadowbank Park. Sydney Water would continue to engage with the Aboriginal Community throughout the detailed design process for the barometric loop to develop cultural infrastructure at Memorial Park.	

Community and interest groups

There are a large number of community groups within the City of Ryde and City of Parramatta Local Government Areas (LGA's) who are directly impacted by the Project regarding amenity and access impacts during construction at Meadowbank Park and Parramatta River. Table D 5 details engagement with community groups who were interested in a project briefing or responded to correspondence.

Further engagement with community and environmental groups would occur during the detailed design phase.

Table D 5: Engagement outcomes with community and interest groups

Stakeholder	Key issues raised	Response	Where addressed in the Environmental Impact Statement
Primary School Sports Association – Ryde Zone	• general concerns regarding pedestrian safety during construction • impacts to access of open space at Meadowbank Park for sport and community activities during construction of river release pipeline • positive feedback regarding early engagement during the planning stage with significant notice of impact before construction, pending approvals • wide support for the project regarding shifting away from costal reliance, cost effective water services and potential benefits for Parramatta River due to strong community values surrounding water quality of Parramatta River	• Sydney Water has adjusted the construction methodology for Meadowbank Park in response to feedback received by City of Ryde Council, park users and local residents. This has included: – limiting the size of construction compounds to cover one sports field rather than multiple – co-locating the river release pipeline along the existing waterway crossings at Vineyard Creek and Charity Creek to reduce visual impacts – adjusting the pipeline installation methodology to open trenching which can be carried out faster than trenchless methods – ongoing engagement would be carried out with park users including sports clubs and local schools to seek feedback on impacts, peak usage periods, and understand preferences for consultation.	• Chapter 7 – Waterways • Chapter 14 – Traffic, transport and access • Chapter 18 – Social impacts.

Stakeholder	Key issues raised	Response	Where addressed in the Environmental Impact Statement
	• impacts of river release pipeline during construction and operation to water sports activities in Parramatta River • timing of project and schedule for construction.		
Epping Scouts Club	• impacts to access of open space at Meadowbank Park for sport and community activities during construction of river release pipeline • impacts of river release pipeline during construction and operation to water sports activities in Parramatta River • timing of project and schedule for construction.	• as above.	• as above.

Stakeholder	Key issues raised	Response	Where addressed in the Environmental Impact Statement
Yarralla Sea Scouts	• impacts to accessing open space at Meadowbank Park for sport and community activities during construction of river release pipeline • impacts of river release pipeline during construction and operation to water sports activities in Parramatta River • timing of project and schedule for construction.	• as above.	• as above.
Concord Sailing Club	• impacts to accessing open space at Meadowbank Park for sport and community activities during construction of river release pipeline • impacts of river release pipeline during construction and operation to water sports activities in Parramatta River • timing of project and schedule for construction.	• as above.	• as above.
Melrose Park Primary School	• timing of construction and potential loss of access to Meadowbank Park for sporting activities.	• as above.	• as above.

Stakeholder	Key issues raised	Response	Where addressed in the Environmental Impact Statement
Melrose Park Football Club	• timing of construction and potential loss of access to Meadowbank Park for sporting activities.	• as above.	• as above.
Parramatta River Catchment Group – Riverkeeper Program (PRAWN)	• impacts of river release pipeline during construction and operation to Parramatta River • timing of project and schedule for construction.	• as above.	• as above.
Rowing NSW	• impacts of river release pipeline during construction and operation to Parramatta River • timing of project and schedule for construction.	• as above.	• as above.
Meadowbank Park User Group Committee	• impacts of river release pipeline during construction and operation to Parramatta River • timing of project and schedule for construction.	• as above.	• as above.

Appendix E - Mitigation measures

Appendix E - Mitigation measures

Sydney Water has avoided and minimised a range of environmental impacts during design as outlined in impact assessment chapters (Chapters 7 to 22). Residual impacts will require further mitigation during future project phases. The required mitigation measures and when they need to be applied are captured in the impact assessment chapters as well as in Table E1 below. Relevant project phases include:

- Detailed design: mostly occurs before construction starts but may also continue while earlier construction activities are in progress.
- Prior to construction: typically measures to be established before starting construction.
- During construction: measures to be applied while the project is being built
- Post-construction and commissioning: measures to be applied once construction has finished, such as close out of construction activities or commissioning project assets once they have been built.
- During operation: measures to be applied once commissioning is complete, these measures can be temporary or ongoing.
- Ongoing: measures to be applied when needed and not linked to a specific project phase.

Different project assets are being constructed at different times, so these project phases are likely to overlap. Some mitigation measures will apply across multiple project phases. For example, a mitigation measure may be installed before construction starts and implemented during construction.

Some mitigation measures (or multiple similar versions of the same mitigation measure) may have been captured across multiple specialist studies or assessments. For example, mitigation measures relevant to works in or near waterways may be relevant to receiving water quality, surface water, biodiversity, contamination, soils or other aspects. Where this has occurred, Sydney Water has captured the mitigation measure against the most relevant aspect, without repeating it elsewhere.

Table E1: Mitigation measures

ID	Potential impact	Mitigation measures	Timing
Hydrodynamics and water quality			
WQ01	Treated water quality monitoring	**Frequency** Monitor release volumes daily with a calibrated flow meter, including during offline events/ incidents where tertiary treated water is released. Monitor water quality every 6 days, or daily if tertiary releases occur. **Location** Monitor at suitable locations within the Camellia-Rosehill WRRF that are representative of the final release streams, including for flow metering. **Analysis and reporting** Water quality analysis is to be completed by Sydney Water's Laboratory Services, or an alternative National Association of Testing Authorities (NATA) accredited laboratory. Sydney Water will submit an Annual Return as required by the EPL. The Annual Return will report on pollutants listed in the EPL.	During operation

ID	Potential impact	Mitigation measures	Timing
WQ02	Ambient water quality monitoring of Parramatta River	**Frequency** Monitor river quality every 3 weeks. This is consistent with the Sydney Water Aquatic Monitoring (SWAM) program. **Location** Collect samples at one location upstream and one location downstream of the release. The location of these 2 monitoring sites will be finalised in consultation with the EPA. All water samples to be collected from the surface or within a depth of 0.5 m of the surface. **Analysis and reporting** Analysis is to include duplicate samples. Field-based parameters (such as temperature, dissolved oxygen, pH, conductivity, turbidity) to be recorded for one of the samples. Field observations such as visual indications of pollution, odour and any other important general comments to be noted at each site. Report on parameters appropriate to the release stream and the receiving environment. Analysis is to be completed by Sydney Water's Laboratory Services laboratories, or an alternative NATA accredited laboratory. Reporting protocols to be finalised in consultation with the EPA.	During construction, prior to and post-commissioning and operation
Surface water			
SW01	Surface water runoff impacts, including contamination entering waterways	Develop a Soil and Water Management Plan (SWMP). The SWMP is to identify the locations, general principles (such as storing contaminated and waste materials away from drainage lines) and the nature of key environmental controls (use of silt fences, energy dissipators etc.) that may be adopted across the project area. The SWMP will identify: • roles and responsibilities • monitoring and auditing requirements.	Prior to and during construction

ID	Potential impact	Mitigation measures	Timing
SW02	Spoil impacted by acid sulfate soils entering waterways	Develop and implement an Acid Sulfate Soil Management sub-plan (ASSMP). The ASSMP is to be prepared and implemented in accordance with the Acid Sulfate Soils Management Advisory Committee: Acid Sulfate Soils Assessment Guidelines (ASSMAC, 1998).	Prior to and during construction
SW03	Run off or construction impacted water entering waterways	Develop and implement a Dewatering Protocol to manage dewatering during the works. This would include: • a process for testing whether water meets discharge criteria • water treatment methods including flocculation and pH adjustment • discharge process and location/s including avoiding erosion or scour • record requirements including test results and location of disposal to offsite at a licenced facility. • separate surface water and groundwater management requirements.	Prior to and during construction
SW04	Loss of drilling fluid during trenchless construction	Develop a Drilling Fluid Management Protocol to minimise the potential for impacts, including: • contain and monitor drilling fluids at launch and receival pits • identify, manage and clean up frac-outs to prevent environmental harm • reuse and/or disposal of drilling fluids appropriately.	Prior to and during construction

ID	Potential impact	Mitigation measures	Timing
SW05	Chemical or fuel spills entering waterways	Incorporate chemical or fuel spill mitigation measures and a spill response procedure in the SWMP. This should include the following measures: • maintain spill kits in appropriate locations in accordance with Australian Standards, including where required inside machinery and vehicles • conduct refuelling, fuel decanting and vehicle maintenance in compounds where possible. If field refuelling is necessary, designate an area away from waterways and drainage lines with functioning spill kits close by • all vehicles, plant and equipment to be checked regularly for fuel tank and line leaks or failures • bunds and sumps should be regularly inspected, and capacity maintained by regular draining and disposal. Spill clean-up response protocols would be adopted into operational protocols for the WRRF as a standard requirement.	Prior to and during construction During operation
SW06	Increased pollutant loads entering Duck River from the WRRF	Implement additional water sensitive urban design measures, such as filtration cartridges and gross pollutant traps, on assets connecting to the existing stormwater system to demonstrate a net reduction in pollutants entering Duck River from the WRRF.	During operation
SW07	Pipe leaks or bursts	Operate the project in accordance with Sydney Water's existing management systems (or equivalent contractor management systems), including: • Asset Management System (ISO 55001) • Quality Management System (ISO 9001) • Health and Safety Management System (AS/NZ 4801) • Environmental Management System (ISO 14001).	During detailed design and operation

ID	Potential impact	Mitigation measures	Timing
SW08	Surface water quality impacts (associated with instream works in the river)	Monitor water quality during instream works. Refer to **GE01**.	Prior to and during construction
Geomorphology			
GE01	Mobilisation of contaminated sediments	Develop a River Release Structure Construction Environmental Work Method Statement (RRSC EWMS). This document will establish the locations and nature of key environmental controls for mitigating environmental risks during construction of the river release structure. This should be prepared in consultation with relevant stakeholders, including local Councils, NSW Maritime and NSW DPIRD Fisheries. The RRSC EWMS would include: • construction methods for the temporary works (assessed as the cofferdam) and river release structure equipment used to place concrete mattresses (or similar performing structure), pipes and nozzles slowly, carefully and minimising the need for repositioning • barge and watercraft traffic management (if required) • documentation, standard practices and emergency protocols • reference to the SWMP (for contamination and acid sulfate soil management) and the dewatering protocol • measures for: – avoiding aquatic biodiversity impacts – measures to avoid sediment disturbance, including sediment curtains (or similar device) – night works – water quality monitoring as per **WQ02**.	Prior to and during construction

ID	Potential impact	Mitigation measures	Timing
GE02	Scour or changes in bathymetry due to river release	Inspect and take photographs of the zone around the pipeline installation within the river post-construction to check for any scour and major changes in local bathymetry in conjunction with asset structure checks. This would be done periodically by diver or remote operated vehicle, every 6 months for 2 years.	During operation
Aquatic biodiversity			
AB01	Aquatic habitat loss or disturbance	Rehabilitate disturbed banks and seawalls with appropriate landscaping and habitat features (e.g. complex sandstone, riparian planting). Consider further habitat enhancement using complex sandstone block arrangements and riparian planting to improve habitat heterogeneity and fish habitat as per A Guide to Improving the Environmental Value of Seawalls and Seawall-lined Foreshores in Estuaries (OEH, 2012).	During construction
AB02	Aquatic habitat loss or disturbance	Ensure that contractors are aware of mapped TEC, mangroves and sensitive foreshore habitat and that it is not directly or indirectly disturbed during construction activities.	During construction
AB03	Mobilisation of contaminants	Regular visual water quality checks (for hydrocarbon spills, turbid plumes and other water quality issues) should be carried out when working near any waterways.	During construction

ID	Potential impact	Mitigation measures	Timing
AB04	Vessel movements and operation introducing marine pests	Vessel and marine pest management measures would be captured in the RRSC EWMS e.g. as part of vessel management protocols and include the following: • provision of designated anchoring zones and also 'no go' zones around mangroves • contracted work barges should be shallow draft and minimise the use of high-powered thrusters where this is feasible to reduce the risk of sediment disturbance • all work vessels, barges and equipment used in water should be cleaned and inspected prior to arriving and departing from site • ballast water should be managed in accordance with the Australian Ballast Water Management Requirements • undertake vessel risk assessments and invasive species inspections for all vessels as part of routine biofouling management practice • if any marine pests are encountered during water-based construction activities, the area must be isolated and NSW DPIRD Fisheries notified promptly.	Prior to and during construction
AB05	Recreational amenity	Provide advance notice to community and recreational users. Refer to **SIA01**.	Prior to and during construction
AB06	Threatened and protected species	Direct artificial light away from sensitive habitats or areas where possible (i.e. potential waterbird and shorebird habitat).	During construction
AB07	Threatened and protected species	Incorporate standard daytime hours noise management safeguards into the CEMP.	During construction

ID	Potential impact	Mitigation measures	Timing
AB08	Key Threatening Processes	Implement best practice management for instream large-wooded debris: • lopping (trimming) should be considered as a first option • instream realignment should be considered as the next option • if realignment is not feasible, relocation within the river channel is preferable to removal • removal should be considered as a last resort.	During construction
AB09	Mobilisation of contaminants and changes to water quality	Continue to monitor water quality and apply adaptive management actions as required. Refer to **WQ02**.	Prior to and during operation
AB10	Aquatic habitat loss or disturbance	Implement a Soil and Water Management Plan. Refer to **SW01**.	Prior to and during construction
AB11	Aquatic habitat loss or disturbance	Implement sediment curtains or similar sediment capture device. Refer to **GE01**.	During construction
AB12	Mobilisation of contaminants	Implement an Acid Sulfate Soil Management Sub-Plan. Refer to **SW02**.	During construction
AB13	Mobilisation of contaminants	Implement a Waste and Resource Recovery Plan (WRRP). Refer to **W01**.	Prior to and during construction
AB14	Mobilisation of contaminants	Minimise chemicals or fuels entering waterways. Refer to **SW05**.	During construction
Flooding			
FL01	Flooding impacts on project worksites during construction	Prepare and implement a Flood Management Plan as part of the CEMP for the proposed construction works that will describe the processes for flood preparedness, materials management, weather monitoring, flood incident management and site management during construction. Prepare flood incident management measures in consultation with NSW SES and relevant local councils.	Prior to and during construction

ID	Potential impact	Mitigation measures	Timing
FL02	Potential for aerial crossings of Charity creek and the unnamed Creek to cause flood impacts	Review design of aerial crossings over Charity Creek and the unnamed creek for potential flood impacts. If required, refine the aerial crossings design to minimise potential flood impacts.	Detailed design
FL03	Construction activities may exacerbate flooding or lead to pollution	Plan construction activities to locate construction facilities outside high flood hazard areas on a 1% AEP flood, where possible.	Prior to construction
FL04	Open trenching and trenchless construction on flood prone land have the potential to redistribute flood flows	Plan excavation of open trenches and microtunnelling / HDD to avoid potential flooding impacts to people and property, including: • planning excavation to avoid periods of forecast heavy rain • backfilling excavations promptly • protecting microtunneling and HDD entry and exit points from floodwater where possible.	Prior to and during construction
FL05	Construction activities may exacerbate flooding or lead to pollution	Plan construction activities to locate spoil stockpiles in areas which are not subject to frequent inundation by floodwater.	Prior to and during construction
FL06	Increase in flood depths from construction activities obstructing existing drainage pathways	Maintain existing hydraulic capacity where practicable for activities that may impact existing drainage systems during construction.	During construction
FL07	Emergency preparedness during operation	Prepare and implement a Flood Management Plan for the operation of the WRRF, which will describe the procedures for planning and responding to a flood event. Early evacuation preparedness will be implemented in favour of sheltering in place.	Prior to and during operation

ID	Potential impact	Mitigation measures	Timing
Soils and contamination			
CLS01	Ineffective controls pending additional investigations	Undertake the following investigations: • further characterisation of ASS and asbestos along the pipeline alignments • a soil, groundwater and soil vapour investigation at 54-58 Derby Street, Silverwater and 103-105 Silverwater Road, Silverwater.	During detailed design
CLS02	Soil contamination – compound sites	At the construction compound sites, consider the importation and placement of engineering fill, Excavated Natural Materials (ENM) or Virgin Excavated Natural Materials (VENM) as a construction base (or hardstand) underlain by geotextile fabric to avoid disturbance of potentially contaminated soils in these areas. If excavations are required, the contamination status of the surface soils will be assessed prior to importation of VENM or ENM, and management, if necessary, will be undertaken in accordance with procedures detailed in the CEMP.	During construction
CLS03	Unexpected contamination	Manage the discovery of any unexpected contamination during construction in accordance with an Unexpected Finds Protocol (UFP).	During construction
CLS04	Disturbance of saline soils	Generally, the potential for impacts due to the presence of saline soils is considered low. Any potential impacts would be temporary and managed by implementing standard best-practice erosion and sediment control measures.	During construction
CLS05	Disturbance of asbestos	Prepare and implement an Asbestos Management Plan (AMP), which would detail asbestos locations on-site, management decisions including transport management, air monitoring requirements (if applicable) during construction, testing, disposal and encapsulation options, incident and emergency procedures.	Prior to and during construction
CLS06	Potential impacts of contaminated sediment disturbance within and adjacent to Parramatta River	Minimise the disturbance and migration of contaminated sediments. Refer to **GE01**.	During construction

ID	Potential impact	Mitigation measures	Timing
CLS07	Soil and groundwater contamination at the WRRF	An updated LTEMP will be required to manage the existing contamination at the WRRF. The LTEMP will need to consider and include relevant management requirements under the existing three LTEMPs associated with the WRRF (which will be superseded).	During operation
CLS08	Soil, soil vapour, ground gases and groundwater contamination	Implement a SWMP including a Contamination sub-management plan with reference to an Asbestos Management Plan. Refer to **SW01** and **CLS05**.	During construction
CLS09	Soil and groundwater contamination	Implement a Drilling Fluid Management Protocol. Refer to **SW04**.	During construction
CLS10	Groundwater contamination	Implement a SWMP. Refer to **SW01**. Implement a Dewatering Protocol. Refer to **SW03**.	During construction
CLS11	Spills resulting from improper storage and handling of hazardous substances	Implement a spill response procedure. Refer to **SW05**.	During construction
CLS12	Disturbance of acid sulfate soils	Implement an ASSMP. Refer to **SW02**.	During construction
Groundwater			
GW01	Groundwater drawdown	Implement sheet piling and concrete encasement as per design to minimise groundwater flow.	During detailed design
GW02	Contamination of groundwater from surface water runoff	Implement a SWMP. Refer to **SW01**.	Prior to and during construction
GW03	Potential for groundwater interaction with acid sulfate soils	Implement an ASSMP. Refer to **SW02**.	Prior to and during construction

ID	Potential impact	Mitigation measures	Timing
GW04	Groundwater drawdown and quality impacts from dewatering activities	Implement a dewatering protocol. Refer to **SW03**.	Prior to and during construction
GW05	Loss of drilling fluid (frac outs) and groundwater seepage during trenchless construction	Implement a Drilling Fluid Management Protocol. Refer to **SW04**.	Prior to and during construction
GW06	Groundwater seepage to trench bedding	Use trench stoppers to prevent migration of groundwater from the source.	During construction
GW07	Groundwater quality and quantity	Develop and implement a groundwater monitoring plan to inform detailed design and the SWMP (refer to **SW01**). The plan would identify: • additional drilling and groundwater investigations to supplement existing groundwater information near the river release structure at Parramatta River • drilling and groundwater investigations along the alignment for the brine pipeline (relining section) if structural relining methods are required. • groundwater monitoring locations and water quality indicators.	During detailed design
GW08	Groundwater quality and quantity	During construction, monitor: • groundwater quality and levels every 3 months at the WRRF • dewatering in accordance with the dewatering protocol in **GW05** and **SW03**.	During construction
GW09	Groundwater quality and quantity	Undertake one round of groundwater contamination monitoring at the WRRF site within 12 months of operation commencing. No operational pipeline groundwater monitoring (quantity or quality) is proposed for the pipelines or Camellia pumping station.	During operation

ID	Potential impact	Mitigation measures	Timing
Terrestrial biodiversity			
TB01	Biodiversity impacts	Prepare a Flora and Fauna Management Plan prior to clearing of native vegetation and threatened species habitat. The sub-plan is to include: • plans showing areas to be cleared and areas to be protected, including exclusion zones, protected habitat features and revegetation areas • pre-clearing survey requirements, including triggers for engaging an ecologist • procedures for unexpected threatened species finds and fauna handling • protocols to manage weeds and pathogens.	Prior to and during construction
TB02	Residual impacts to biodiversity	Prepare a Biodiversity Offset Strategy in accordance with the NSW Biodiversity Offset Scheme to address the species and ecosystem credit requirements outlined in Chapter 11 (Terrestrial biodiversity).	Prior to construction
TB03	Impacts to native vegetation and native species habitat	Adjust methodology (e.g. avoid area) to protect sensitive areas where possible (such as mature trees, known threatened species, populations or ecological communities).	During detailed design and construction
TB04	Impacts to significant vegetation and threatened species	Site inductions for construction staff would include: • details on the potential presence and location of threatened species and their habitat • locations and extents of no-go zones • an overview of sensitive areas, including the Nuri and Narawang Wetlands adjacent to Sydney Olympic Park and the riparian areas of the Parramatta River and the Duck River.	Prior to construction
TB05	Prevent impacts from accidental clearing	Physically delineate vegetation to be cleared and/or protected on site and install appropriate signage prior to works commencing.	Prior to and during construction

ID	Potential impact	Mitigation measures	Timing
TB06	Fauna mortality and injury	Conduct pre-clearing surveys to identify any breeding or nesting activities by native fauna in hollow-bearing trees and native vegetation or where there is potential to minimise impacts to threatened species. No breeding sites or active nests should be disrupted, as far as practical.	Prior to construction
TB07	Fauna mortality and injury	Check for sheltering native fauna of all infrastructure, plant and equipment before works commence daily and during relocation of stored construction materials.	Prior to and during construction
TB08	Impacts to native vegetation and native species habitat	Minimise vegetation clearance and disturbance, including impacts to standing dead trees and riparian zones. Where possible, limit clearing to trimming rather than the removal of whole plants. Make particular effort to avoid impacts to PCT and TEC vegetation in Memorial Park and Sydney Olympic Park.	Prior to and during construction
TB09	Impacts to native vegetation and native species habitat at Sydney Olympic Park	Where possible, lay pipeline strings to avoid impacts to native trees and shrubs, in particular through PCT 4028 in construction compound C27.	During construction
TB10	Impacts to native vegetation and native species habitat	Locate material stockpiles away from native vegetation (including planted native vegetation) and physically delineate native vegetation to avoid unintentional trampling, accidental damage and other impacts.	During construction
TB11	Impacts to native vegetation and native species habitat	Protect trees in accordance with the requirements of Australian Standard 4970-2009 for the Protection of Trees on Development Sites where trees are not required to be removed. Engage a qualified arborist to assess whether significant native trees in Memorial Park (DBH over 15 cm) can be retained. Do this when the impact area overlaps the Tree Protection Zone and removal may not required. The assessment would consider the ongoing viability of the tree and safety risk.	During construction

ID	Potential impact	Mitigation measures	Timing
TB12	Impacts to native vegetation and native species habitat	Retain dead tree trunks, bush rock or logs in-situ unless they are in the impact area and moving is unavoidable. Maximise reuse of native vegetation and other habitat features that have been approved for removal. If reuse is not possible on site, consult with relevant stakeholders to determine if the following features could be used by others in habitat enhancement and rehabilitation activities: • hollows, tree trunks (greater than 25-30 cm in diameter and 2-3 m in length), mulch, bush rock and root balls salvaged from native vegetation impacted by the project • collected plant material, seeds and/or propagated plants from native vegetation impacted by the project.	During construction
TB13	Impacts to the Bar-tailed Godwit and Curlew Sandpiper	To the extent possible and consistent with construction requirements, minimise works and intensity of works within Important Habitat Map for the Bar-tailed Godwit and Curlew Sandpiper.	During construction
TB14	Prevent impacts from accidental clearing	If any damage occurs to vegetation outside of the impact area, notify the Sydney Water Project Manager and Environmental Representative in accordance with Sydney Water management specifications.	During construction
TB15	Fauna mortality and injury	Securely cover any pits/trenches that are to remain open overnight adjacent to native vegetation. Alternatively, install fauna ramps (logs or wooden planks) to provide an escape for trapped fauna.	During construction
TB16	Fauna mortality and injury	If fauna is encountered on site, stop work and allow the fauna to move away un-harassed. Engage WIRES or a licenced ecologist if assistance is required to move fauna.	During construction

ID	Potential impact	Mitigation measures	Timing
TB17	Fauna mortality and injury	The Flora and Fauna Management Plan will outline steps to follow should any threatened flora or fauna species be discovered during the works, including notification, assessment and management requirements.	During construction
TB18	Fauna mortality and injury	Where fauna species are identified in vegetation to be cleared, remove and relocate to adjacent bushland prior to felling. If this is not possible, the tree would be sectionally dismantled or soft felled under the supervision of an ecologist or wildlife carer, before relocating the animal.	During construction
TB19	Fauna mortality and injury	Avoid removal of hollow-bearing trees if possible. If removal is necessary: • remove surrounding non-hollow-bearing trees at least 48 hours before habitat trees are removed. • Knock hollow-bearing trees with an excavator bucket or other machinery to encourage fauna to evacuate the tree immediately prior to felling. • Leave felled trees for a short period of time to give any fauna trapped in the trees an opportunity to escape before further processing. • Engage an ecologist to inspect felled hollow-bearing trees as soon as possible (no longer than two hours after felling).	During construction
TB20	Prevent the spread of exotic species	The Flora and Fauna Management Plan will outline steps to manage and prevent the spread of weeds, including: • Wrap straw bales in geofabric to prevent seed spread. • Dispose of all plant parts and excavated topsoil that may be infested with weed propagules at a licensed waste disposal facility. • Report high risk weed infestations or invasive pests, as required by the Biosecurity Act 2015. • Record Pesticide and Herbicide use in accordance with Sydney Water procedure, SWEMS0017.	During construction

ID	Potential impact	Mitigation measures	Timing
TB21	Impacts to vegetation	Restore impact areas to pre-existing condition as much as practical. Replace removed trees with the same species (if possible), or species agreed to with relevant council/ landowners. Tree selection will consider potential impacts to Sydney Water assets. Where trees cannot be replanted at the same location, Sydney Water would work with stakeholders to agree to an alternative location, which could include the WRRF, if appropriate.	During post-construction
Air quality			
AQ01	Operational NO_2 emissions	Co-generation equipment (if selected) is to include consideration of engines with the lowest level of NO_2 generation per unit of energy production as far as practical.	During detailed design
AQ02	Operational odour emissions	Detailed design to confirm through odour modelling, that the final design achieves odour modelling performance requirements in this EIS.	During detailed design
AQ03	Construction dust	Include the following measures in the project's CEMP: • maintain equipment in good working order to comply with the Clean Air Regulations of the POEO Act, having appropriate exhaust pollution controls, and meeting Australian Standards for exhaust emissions • carry out dust suppression on exposed areas and stockpiles using a non-drinking water source, where possible • cover exposed areas or stockpiles when high wind conditions are expected and if expected to be left exposed for more than 20 days (for example with tarpaulins or geotextile fabric) • modify or cease dust-generating work in windy conditions, where possible • maximise distance of dust-generating activities from sensitive receivers, where possible.	Prior to and during construction

ID	Potential impact	Mitigation measures	Timing
AQ04	Operational odour emissions	Operate odour control unit on site. Manage odour complaints in accordance with Sydney Water's existing management system processes.	During operation
Noise and vibration			
NV01	Excessive noise generated during construction	Prepare a Construction Noise and Vibration Management Plan (CNVMP) as part of the project CEMP. This will include: • roles and responsibilities • noise sensitive receiver locations • standard working hours and OOHW processes • reasonable and feasible management measures (including respite consideration) • monitoring methodology • community engagement.	Prior to and during construction
NV02	Excessive noise generated during construction	Develop and implement a Community and Stakeholder Engagement Plan (CSEP) that will outline the following: • ongoing consultation with landowners, stakeholders, local councils, businesses and other relevant government agencies • notification of construction impacts to local areas and how these will be managed • project updates to nearby communities, including information on positive impacts and long-term project benefits • process for community complaints and response management system • a dedicated 1800 toll free number for enquiries • a dedicated email address and website for the project • resident notifications regarding:	Prior to and during construction

ID	Potential impact	Mitigation measures	Timing
		– start of construction – significant milestones – major detours, traffic disruptions and controls – after hours work • communication of key messages in a range of languages • vehicle management signs to communicate traffic changes to road users and communicate traffic management plans. For affected sensitive receivers (such as childcare centres, places of worship and businesses), specific community engagement should be undertaken to understand noise sensitive times to avoid high noise generating works during sensitive periods or inclusion of respite periods.	
NV03	Vibration from construction equipment results in impacts to structures	Complete dilapidation and condition surveys on infrastructure and structures at risk from being damaged by vibration during construction, including heritage items.	During detailed design Prior to and during construction
NV04	Equipment selection during construction generates excessive noise	Select equipment to minimise noise emissions. For example: • select equipment with lower noise emissions than alternative equipment • use electric/ hydraulic equipment where possible. Use the minimum size and power requirement to complete a task.	Prior to and during construction

ID	Potential impact	Mitigation measures	Timing
NV05	Placement of construction equipment results in noise impacts	Arrange construction equipment to minimise noise to any nearby sensitive receivers. For example: • maximise the distance between noisy plant and any adjacent sensitive noisy receivers, including directing noise emitting plant away from sensitive receivers • throttle down or shut down equipment when not in use • where possible shield or enclose stationary noise sources whilst maintaining worker safety where possible, place or orient structures or hoarding/noise curtains at particularly noisy compounds to shield residential receivers where possible (e.g. compounds where trenchless works will be undertaken for particularly long durations).	Prior to and during construction
NV06	Out of hours works (OOHW) results in sleep disturbance of sensitive receivers	Consult with residents that will be impacted by OOHW about measures to manage impacts in accordance with the ICNG.	Prior to and during construction
NV07	Vibration from construction equipment results in impacts to structures	Investigate opportunities for using alternatives to vibration generating equipment where vibration impacts have the potential to occur.	Prior to and during construction
NV08	Inefficient operation and maintenance of equipment resulting in noise impacts	Regularly train workers and contractors (such as at toolbox talks) to use equipment and conduct works in ways to minimise noise, including: • site managers to periodically check the site and nearby residences for noise problems so that solutions can be quickly applied • avoid the overuse of radios or stereos outdoors. When in use outdoors, maintain at respectful volumes • avoid the overuse of public address systems • avoid shouting and minimise talking loudly and slamming vehicle doors • turn off all plant and equipment when not in use • maintain and monitor equipment to ensure proper and efficient operation.	During construction

ID	Potential impact	Mitigation measures	Timing
		Aligning with Sydney Water's Noise Management Code of Behaviour (SWEMS0056.01).	
NV09	Inefficient use of construction vehicle reverse beepers	Implement and use non-tonal reversing beepers (or an equivalent mechanism) on all construction vehicles and mobile plant, where possible. Consider the use of ambient sensitive alarms that adjust output relative to the ambient noise level.	During construction
NV10	Noise during OOHW	For works required outside of standard hours, undertake particularly noisy work at the start of the shift where possible. Provide appropriate respite to affected receivers in accordance with the Interim Construction Noise Guideline (ICNG).	During construction
NV11	Vibration from construction equipment results in impacts to structures	Undertake in-situ vibration monitoring to confirm vibration levels and assess potential impacts where minimum vibration impact distances cannot be achieved. Where the monitoring identifies exceedances in the relevant criteria, or where impacts are identified, additional management measures will be identified and implemented to appropriately manage impacts.	During construction
Traffic and transport			
TT01	Traffic congestion including at the Grand Avenue/James Ruse Drive and Wentworth Street/Parramatta Road intersections due to traffic volumes	Prepare and implement a Construction Traffic Management Plan (CTMP) in accordance with the Framework Construction Traffic Management Plan. The CTMP would outline: • staging and timing of construction for each area of the project • any changes to traffic conditions, including road closures or diversions • identification of haulage routes, avoiding use of nominated local roads • safe alternative routes for pedestrians, cyclists and other active transport in accordance with relevant safety standards • parking arrangements for construction workers • construction access points	During detailed design and construction

ID	Potential impact	Mitigation measures	Timing
		• measures to minimise impacts on public transport network, including bus stops • opportunities to reduce road traffic noise, including restricting heavy vehicle movements to standard construction hours • measures to minimise impacts to businesses • measures to outline construction interface management with Stage 2 of PLR and Sydney Metro West • scheduling of deliveries outside of the AM/ PM peak hours where possible. Site-specific Construction Traffic Management Plans (SSCTMP) are also to be prepared for key intersections in consultation with relevant local councils, impacted residents and businesses, TfNSW and in accordance with relevant guidelines and the Framework CTMP.	
TT02	Impacts during special events	Where special events require specific traffic and pedestrian management, develop and implement measures in consultation with Sydney Olympic Park Authority (SOPA), the Australian Turf Club, and other relevant stakeholders.	During construction
TT03	Temporary disruption to bus stops and routes along the construction corridor	Liaise with relevant bus operators and State authorities to develop temporary solutions. Implement proactive notifications and signage in line with the Community and Stakeholder Engagement Plan where relevant.	During detailed design
TT04	Temporary disruption to ferry routes along the construction corridor	Liaison with State authorities, local councils, stakeholders and operators to develop temporary solutions. Implement proactive notifications and signage in line with the Community and Stakeholder Engagement Plan where relevant.	During detailed design
TT05	Temporary disruption to footpaths and cycle routes and public spaces	Maintain access (wherever possible) or provide alternate safe access routes.	During detailed design and construction

ID	Potential impact	Mitigation measures	Timing
TT06	Temporary impacts to dwellings and business access including from road closures and temporary removal of on-street parking	Liaise with local councils and stakeholders to develop temporary solutions. Implement proactive notifications and signage in line with the Community and Stakeholder Engagement Plan where relevant.	During detailed design
TT07	Cumulative traffic impacts from nearby construction including from Sydney Metro West and Stage 2 of PLR	Liaise with local councils and stakeholders, including affected residents and businesses to develop temporary solutions.	During detailed design and construction
Non-Aboriginal heritage			
NAH01	Non-Aboriginal heritage impacts	Prepare a Heritage Management Plan as part of the CEMP. This would include: • a list of the identified heritage sites and their locations • Unexpected Heritage Finds Protocol • heritage awareness and management training for site induction processes including: – briefing on the heritage sensitivity of the impact area and moveable heritage within the Camellia pumping station – management measures – guidance on unexpected finds – obligations under the *Heritage Act 1977*.	Prior to and during construction

ID	Potential impact	Mitigation measures	Timing
NAH02	Damage to items in the impact area due to vibration	Where vibration intensive construction is required within the minimum working distances of heritage items, the use of alternative equipment should be considered. For structures still within the site-specific minimum distances the following should occur to avoid exceeding the Cosmetic Damage Screening Criteria (AECOM, 2025): • condition survey before and after vibration intensive works • vibration monitoring during vibration intensive activities. The vibration monitor should alert the supervisor when vibration levels reach or exceed the criteria.	Prior to and during construction
NAH03	Accidental direct impact to fabric of items, including: • the sandstone and brick feature at the Rydalmere Hospital Precinct (former) • Camellia pumping station (Sewage Pumping Station 67)	Install fencing to demarcate between work areas and heritage fabric in proximity of the works.	Prior to and during construction
NAH04	Unexpected damage to brickwork at Camellia pumping station (Sewage Pumping Station 67)	Utilise existing penetrations in brickwork where possible for new electrical connections. If not possible, prioritise drilling through mortar rather than brick to minimise damage to significant brickwork.	During construction
NAH05	Unexpected heritage impact that does not comply with policies and guidelines of Conservation Management Plans for: • Female Orphan School • Camellia pumping station (Sewage Pumping Station 67)	Take photographic records to systematically survey the site before construction for archival purposes, in line with the relevant Conservation Management Plan (CMP) policies. Should damage unexpectedly occur, the relevant CMP owners are to be notified and develop a plan to rectify impacts as reasonably possible.	Prior to and during construction

ID	Potential impact	Mitigation measures	Timing
NAH06	Loss of vegetation in Memorial Park resulting in impacts to the aesthetic setting	Minimise removal of vegetation in the curtilage where possible. Replant removed vegetation. Refer to **TB10**.	Prior to and during construction
NAH07	Damage to or destruction of the Ryde Remembers memorial	During detailed design, prioritise protecting and retaining the plaque in its original location. If this is not possible, consult with City of Ryde Council to temporarily store and reinstate the plaque on the completion of works, or relocate the plaque permanently.	Prior to and during construction
Aboriginal heritage			
AH01	Impacts to Aboriginal heritage, including unexpected finds	Develop and implement a Heritage Management Plan as part of the CEMP. This would include: • roles and responsibilities • map of approved work areas and access points to avoid known AHIMS sites • inducting all construction site staff (before they start work) on known heritage items nearby and measures to be implemented during construction to avoid impacts. Inductions will include: – briefing on approved working areas and access points – management measures (including no-go zones) – Unexpected Heritage Finds Protocol – obligations under the *National Parks and Wildlife Act 1974*.	Prior to and during construction
AH02	Unexpected finds – human skeletal remains	In the event that construction activity reveals possible human skeletal material (remains) an unexpected finds human skeletal remains procedure will be implemented in accordance with the Skeletal Remains – Guidelines for the Management of Human Skeletal Remains under the *Heritage Act 1977* (NSW Heritage Office, 1998) and the Aboriginal Cultural Heritage Standards and Guidelines Kit (NPWS, 1997).	During construction

ID	Potential impact	Mitigation measures	Timing
Visual, landscape and placemaking			
LCV01	Visual impact of construction compounds	Consider a range of solutions such as: • installing temporary screens/hoarding around construction sites and compounds to minimise the visual impacts where higher sensitivity ratings are identified • storing equipment and machinery away from sensitive receivers • phasing works to limit the extent of visible disruption at any one time • keeping the site tidy and removing waste promptly.	During construction
LCV02	Visual impacts of the WRRF – public domain (Viewpoint 05 and viewpoint 06)	Integrate the perimeter design with the surrounding areas through: • integrated level changes (stepping) • planting to help reduce scale of substantial level changes and provide targeted screening • visual appealing street facing buildings with respect to the future Camellia-Rosehill precinct (refer to **LCV03**).	During detailed design and construction
LCV03	Visual impacts to existing and future visual receivers of the WRRF buildings and structures	Implement the following design measures: • adopt materials and finishes for façade treatments on buildings and structures which face the street to improve their visual quality • use colours that will reduce reflectivity and glare • deliver an administration building with a façade that is visually appealing to the public • consider potential for art / Connecting with Country integrated into the building facades of fence.	During detailed design and construction

ID	Potential impact	Mitigation measures	Timing
LCV04	Visual impacts of barometric loop (Viewpoint 14)	Visually integrate the barometric loop into Memorial Park.	During detailed design and construction
LCV05	Visual impacts at the Camellia pumping station	Consider screening and fencing around the Camellia pumping station to mitigate potential visual impacts.	During construction
LCV06	Lighting disturbances	Direct artificial light away from sensitive receivers (i.e. receivers in dwellings where lighting may be required as part of any night works such as in the Meadowbank area during construction of the river release pipeline). Note, requirements also under AB06.	During construction
LCV07	Vegetation removal	Avoid removal where possible and excessive pruning of vegetation. Refer to **TB02** and **TB10**.	During construction
Social			
SIA01	Temporary interruption of access to public spaces	Continue collaboration with local Councils. Refer to **TT05**. Restore parks affected by construction activities. At Meadowbank Park, where the majority area of playing fields are impacted, re-grade the impacted fields and reinstate with quality turf suitable for sports and recreation use, to be selected in consultation with Council. Install two water bubblers in the park. Continue collaboration with Ryde City Council on how Sydney Water can support the Meadowbank Park Masterplan.	Prior to, during and post construction
SIA02	Impact of the project on use of the Parramatta River for recreational purposes	Provide advance notice to community and recreational users of construction timing including: • install clear temporary signage at affected foreshore areas • maintain safe access where practicable.	Prior to and during construction

ID	Potential impact	Mitigation measures	Timing
SIA03	Potential disruption to active and public transport due to construction activities	Develop and effectively implement the project Community and Stakeholder Engagement Plan including measures to proactively address planned and unplanned access interruptions. Refer to **TT03**, **TT04**, **TT05** and **TT07**.	During construction
SIA04	Temporary disruptions to Stardust Circus during construction	Continue engagement with the Australian Turf Club and the Stardust Circus. Minimise impacts through detailed project programming, where feasible.	Prior to and during construction
Sustainability and climate change			
SUS01	Project not achieving sustainable outcomes	Develop and implement a Sustainability Management Plan that outlines how the project will embed and continually improve sustainability throughout delivery of the project. The Sustainability Management Plan will outline: • roles, responsibilities and deliverables relating to sustainability • how sustainability objectives will be embedded into the detailed design, construction and operation of the project • management of the SOR as a live document throughout detailed design and construction, detailing regular reviews, decision making framework and implementation through design mechanisms/deliverables • monitoring and reporting processes to measure success and apply corrections where necessary • the IS rating process, including timeframes for achieving a minimum Silver IS rating • how sustainable outcomes beyond Sydney Water's sustainability requirements can be accommodated and implemented in the project • plan for handover of sustainability initiatives at completion of delivery to operation.	During detailed design, construction and operation

ID	Potential impact	Mitigation measures	Timing
SUS02	Project not achieving carbon and energy reductions in operation (through design)	Implement sustainability initiatives including adopting a commercial framework to drive decarbonisation, with greatest gains likely through operational scope 3 emissions.	During detailed design, construction and operation
SUS03	Project ineffective in lowering climate change risk levels	Adopt design appropriate climate adaptation measures to lower risk levels at detailed design milestones through revised climate risk assessment.	During detailed design
SUS04	Scope 1 and 3 GHG emissions during construction	Where possible, fuel and energy efficient equipment and vehicles will be selected. All equipment and vehicles will be regularly serviced and maintained to optimise efficiency. Aim to prioritise / incentivise low embodied carbon materials for use during construction.	During construction
Waste			
W01	Co-mingling and contamination of waste and resource types, unnecessary disposal, offsite impacts from poor waste management	Develop and implement a Waste and Resource Recovery Plan (WRRP) as part of the project's CEMP to appropriately manage and classify any materials including soils, construction and demolition wastes and associated stockpiles. The WRRP would include: • opportunities to avoid and minimise the generation of spoil in line with the waste hierarchy • expected waste types and their location, including stockpile locations and reuse locations • classification of all waste generated by the project in line with the POEO Act and associated regulations • delineation of waste or resource types including identification of likely vertical and lateral extents (where applicable) • visual monitoring of materials during excavation and measures to be undertaken • material tracking register for on-site and off-site movements	During detailed design and construction

ID	Potential impact	Mitigation measures	Timing
		• ex-situ waste and resource recovery classification program, including proposed hold points • site specific measures for waste segregation, storage, handling, collection and transport according to their waste classification • roles and responsibilities in relation to the management and monitoring of stockpiles and materials • legislative compliance requirements • instructions on clear signage to be provided at construction compounds to encourage correct recycling and segregation to reduce cross contamination.	
W02	Human health risks from storage and handling of asbestos contaminated soils	Develop and implement a procedure for managing asbestos. Refer to **CLS05**.	During construction
W03	Inadequate waste storage space resulting in safety and environmental impacts	Consider measures to minimise excess waste generation during detailed design. Optimise design to minimise excess spoil volumes and maximise the reuse of material on-site in line with the waste hierarchy outlined in the WARR Act.	During detailed design
W04	Waste-related odour, runoff and contamination during operation	Ensure dewatered biosolids, screening and grit is stored properly in covered areas. Ensure process units are appropriately connected to the odour control unit. Follow Sydney Water's standard operating protocols for WRRFs.	During operation

ID	Potential impact	Mitigation measures	Timing
Dangerous goods and hazardous development			
DG01	Explosion or fire from loss of containment from the biogas system	• design for excess biogas in the waste gas burner to be flared as needed • design for pressure and vacuum relief valves to prevent ruptures of the gas holder (digester) • implement leak detection measures • ensure all electrical equipment in the gasholder is suitably specified for the hazardous area in which it would be installed in accordance with AS/NZ 3000:2007 Electrical Installations and AS/NZ 60079.10.1:2009 | Explosive Gas Atmospheres • hold safety data sheets for all chemicals stored on-site for reference by site personnel and emergency services • undertake routine maintenance • provide operator training • update safety management systems including as a minimum: – fire prevention and protection (including gas detection) – emergency planning and response – site security – traffic planning – hazardous area classification – maintenance.	During detailed design and operation

ID	Potential impact	Mitigation measures	Timing
DG02	Impact to human health - interaction between incompatible chemicals resulting in a fire	In accordance with the NSW Work Health and Safety Regulations 2011: • store chemicals and dangerous goods in accordance with AS 3780-2008 and Australian Dangerous Goods Code (National Transport Commission, 2024) • prepare a manifest of the hazardous chemicals exceeding manifest quantities • prepare an emergency plan that would be provided to NSW Fire and Rescue • display warning placards regarding quantities of hazardous chemicals at any entrance where emergency services may enter the workplace.	During operation