

## ENGINEERING WORKS AND SERVICES CODE

Table 9.4.2.1 – Engineering works and services code

| PERFORMANCE OUTCOMES                                                                                                                                                                 | ACCEPTABLE OUTCOMES                                                                                                                                                                                                                                               | ASSESSMENT RESPONSE                                                                                                                                                     |
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| Infrastructure services                                                                                                                                                              |                                                                                                                                                                                                                                                                   |                                                                                                                                                                         |
| <p>PO 1</p> <p>Development is provided with a water supply that is adequate for the current and future needs of the intended uses.</p>                                               | <p>AO 1.1</p> <p>Development is connected to the reticulated water supply infrastructure network and is designed and constructed in accordance with Schedule 6: Engineering works and services planning scheme policy.</p>                                        | <p>Not Applicable</p> <p>No water access is required for the proposed development</p>                                                                                   |
| <p>PO 2</p> <p>Development has a safe and effective means of sewerage treatment and disposal for the level of demand generated.</p>                                                  | <p>AO 2.1</p> <p>Development is connected to the reticulated sewerage infrastructure network and is designed and constructed in accordance with Schedule 6: Engineering works and services planning scheme policy.</p>                                            | <p>Not Applicable</p> <p>No sewer access is required for the proposed development</p>                                                                                   |
| <p>PO 3</p> <p>Development is provided with an appropriate energy supply approved by and installed in accordance with the standards of the relevant energy regulatory authority.</p> | <p>AO 3.1</p> <p>(a) Development is connected to the reticulated electricity infrastructure network; or</p> <p>(b) An alternative energy supply is provided in accordance with the standards of the relevant regulatory authority.</p>                            | <p>Complies with AO3.1</p> <p>The proposed development is to be connected to on-site electrical supply.</p>                                                             |
| <p>PO 4</p> <p>Development is connected to appropriate telecommunications infrastructure.</p>                                                                                        | <p>AO 4.1</p> <p>Development is connected to telecommunication infrastructure in accordance with the standards of the relevant regulatory authority.</p>                                                                                                          | <p>Not Applicable</p> <p>Connection to the formal telecommunication network is not required for the subject development.</p>                                            |
| <p>PO 5</p> <p>Development provides safe and sufficient lighting and signage.</p>                                                                                                    | <p>AO 5.1</p> <p>Street lighting must comply with Australian Standard 1158 Set:2010 Lighting for Roads and Public Spaces.</p> <p>AO 5.2</p> <p>Road signage is provided in accordance with Schedule 6: Engineering works and services planning scheme policy.</p> | <p>Not Applicable</p> <p>No streetlighting is proposed as part of the scope of work.</p> <p>Not Applicable</p> <p>No road signage is included in the scope of work.</p> |

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| <p>PO 6</p> <p>Development has a safe and effective means of sewerage treatment and disposal for the level of demand generated.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <p>AO 6.1</p> <p>Where a connection to the reticulated sewerage infrastructure network is not available, sufficient area is to be provided on the development site for an appropriately sized on-site effluent treatment and disposal system</p>                                                                                                                                                                                                                                                                                                                                                     | <p>Not Applicable</p> <p>No sewer access is required for the proposed development</p> |
| Protection against natural hazards                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                       |
| <p>PO 7</p> <p>Essential services maintain their function during the occurrence of natural hazards.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <p>AO 7.1</p> <p>Components of the systems that deliver electricity supply, gas supply, water supply, sewerage and telecommunications services, that will be adversely affected by the inundation by or infiltration of floodwater are:</p> <ul style="list-style-type: none"> <li>(a) located above the 1 in 100-year Annual recurrence interval (ARI) flood level; or</li> <li>(b) designed and constructed to exclude inundation of floodwater during the 1 per cent AEP; or</li> <li>(c) designed to resist the hydrostatic and hydrodynamic forces that result from such inundation.</li> </ul> | <p>N/A</p> <p>The site is not located within a flood-prone area.</p>                  |
| Roads and access                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                       |
| <p>PO 8</p> <p>Roads and access are designed and constructed to ensure that:</p> <ul style="list-style-type: none"> <li>(a) the alignment of new roads provides for safe and efficient movement of traffic; and</li> <li>(b) road pavement surfaces: <ul style="list-style-type: none"> <li>(i) are durable enough to carry estimated wheel loads of travelling and parked vehicles; and</li> <li>(ii) provide for the safe passage of vehicles, pedestrians and cyclists; and</li> <li>(iii) provide for the discharge of stormwater run-off from contributing catchments; and</li> <li>(iv) preserve all-weather access; and</li> </ul> </li> </ul> | <p>AO 8.1</p> <p>Roads are designed and constructed in accordance with Schedule 6: Engineering works and services planning scheme policy.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <p>Not Applicable</p> <p>The development does not include any new roads.</p>          |

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| <p>(c) kerb and channel:</p> <ul style="list-style-type: none"> <li>(i) controls vehicle movement by delineating the carriageway for all users; and</li> <li>(ii) conveys road pavement runoff to stormwater drainage; and</li> </ul> <p>(d) verges and footpaths provide:</p> <ul style="list-style-type: none"> <li>(i) safe access for pedestrians clear of obstructions; and</li> <li>(ii) an access area for vehicles onto properties; and</li> <li>(iii) a corridor allocated for public utilities; and</li> <li>(iv) additional amenity for minor roads.</li> </ul> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Stormwater drainage                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <p>PO 9</p> <p>Stormwater drainage systems or networks have the capacity to control stormwater flows so that:</p> <ul style="list-style-type: none"> <li>(a) overland runoff is directed to areas where there is no damage to property or hazards for motorists; and</li> <li>(b) runoff is directed to a lawful point of discharge through controlled outlet structures; and</li> <li>(c) development retains the existing hydrological regime (surface and groundwater cycle and flow) to protect vegetation and habitats in and adjoining watercourses.</li> </ul>      | <p>AO 9.1</p> <p>All stormwater runoff from surfaces that are constructed, altered or otherwise affected by development on an allotment is discharged to a lawful point of discharge.</p> <p>AO 9.2</p> <p>Development does not require the use of stormwater pumps in order to achieve a lawful point of discharge.</p> <p>AO 9.3</p> <p>Stormwater drainage is designed and constructed in accordance with Schedule 6: Engineering works and services planning scheme policy.</p> <p>AO 9.4</p> <p>Where the stormwater drainage system includes an underground pipe drain system, runoff from roofs and paved areas is to be connected directly to the pipe drain system.</p> | <p>Complies with AO 9.1</p> <p>Stormwater generated within the development site is to run to the existing on-site stormwater infrastructure before being discharged from the broader site.</p> <p>Complies with AO 9.2</p> <p>No pumps are proposed in order to achieve stormwater discharge.</p> <p>Complies with AO 9.3</p> <p>The proposed civil works have been designed to comply with Schedule 6 of the Planning Scheme.</p> <p>Not Applicable</p> <p>The existing stormwater system on the subject site does not comprise of any underground stormwater system to connect in to.</p> |

## WATER QUALITY CODE

Table 9.4.4.1 – Water quality code:

- Assessment benchmarks for assessable development and
- Requirements for accepted development

| PERFORMANCE OUTCOMES                                                                                                                                                  | ACCEPTABLE OUTCOMES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | ASSESSMENT RESPONSE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
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| Plan to avoid/minimise new impacts                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <p>PO1</p> <p>The development is planned and designed considering the land use constraints of the site for achieving stormwater design objectives.</p>                | <p>AO 1.1</p> <p>A site Stormwater quality management plan (SQMP) is prepared, and:</p> <p>is consistent with any local area stormwater management planning, and provides for achievable stormwater quality treatment measures meeting design objectives listed below in Table 9.4.4.2. - Stormwater management design objectives and current best practice environmental management, reflecting land use constraints, such as:</p> <ul style="list-style-type: none"> <li>• erosive, dispersive and/or saline soil types</li> <li>• landscape features (including landform)</li> <li>• management of nutrients of concern</li> <li>• rainfall erosivity</li> </ul> <p>Note—Local area stormwater management planning may include Urban Stormwater Quality Management Plans, or Catchment or waterway management plans, Healthy Waters Management Plans, Water Quality Improvement Plans, Natural Resource Management Plans.</p> | <p>Complies with PO1</p> <p>In accordance with the State Planning Policy, stormwater quality consideration is only relevant for operational works where disturbing an area greater than 2,500m<sup>2</sup>. The extent of works comprise an area of approximately 1,500m<sup>2</sup>, which would not warrant stormwater quality assessment.</p> <p>In any case, the proposal is to comprise of the establishment of an oily water separator for the capture and treatment of any hydrocarbon spills.</p> |
| <p>PO2</p> <p>Development does not discharge wastewater to a waterway or off-site unless demonstrated to be best practice environmental management for that site.</p> | <p>AO 2.1</p> <p>A Wastewater management plan (WWMP) is prepared by a suitably qualified person and addresses:</p> <ul style="list-style-type: none"> <li>(a) wastewater type, and</li> <li>(b) climatic conditions, and</li> <li>(c) water quality objectives (WQOs), and</li> <li>(d) best-practice environmental management, and</li> </ul> <p>AO 2.2</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <p>Not Applicable</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

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|                                                                                                                                                                                                               | <p>The WWMP provides that wastewater is managed in accordance with a waste management hierarchy that:</p> <ul style="list-style-type: none"> <li>(a) avoids wastewater discharges to waterways, or</li> <li>(b) if wastewater discharge to waterways cannot practicably be avoided, minimises wastewater discharge to waterways by reuse, recycling, recovery and treatment for disposal to sewer, surface water and groundwater.</li> </ul>                                                                                                                                                                                                                                                           |                                                                                                                         |
| <p>PO3</p> <p>Any non-tidal artificial waterway is located in a way that is compatible with the land use constraints of the site for protecting water environmental values in existing natural waterways.</p> | <p>AO 3.1</p> <p>If the proposed development involves an artificial waterway:</p> <ul style="list-style-type: none"> <li>(a) environmental values in downstream waterways are protected, and</li> <li>(b) any groundwater recharge areas are not affected, and</li> <li>(c) the location of the waterway incorporates low lying areas of a catchment connected to an existing waterway, and</li> <li>(d) existing areas of ponded water are included, and</li> </ul> <p>AO 3.2</p> <p>Artificial waterways are located:</p> <ul style="list-style-type: none"> <li>(a) outside natural wetlands and any associated buffer areas, and</li> <li>(b) to minimise disturbing soils or sediments</li> </ul> | <p>Not Applicable</p> <p>No Artificial waterway is proposed or impacted by the works.</p>                               |
| Construct to avoid/minimise new impacts                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                         |
| <p>PO4</p> <p>Construction activities for the development avoid or minimise adverse impacts on stormwater quality.</p>                                                                                        | <p>AO 4.1</p> <p>An Erosion and sediment control plan (ESCP) demonstrates that release of sediment-laden stormwater is avoided for the nominated design storm, and minimised when the nominated design storm is exceeded, by addressing design objectives listed below in Table 9.4.4.2 - Stormwater management design objectives for:</p>                                                                                                                                                                                                                                                                                                                                                             | <p>Complies with AO 4.1</p> <p>An erosion and sediment control plan has been provided within the proposed drawings.</p> |

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|                                                                                                                                                                                                                                                                                                                                                                       | <p>(a) drainage control, and</p> <p>(b) erosion control, and</p> <p>(c) sediment control, and</p> <p>(d) water quality outcomes, and</p> <p>AO 4.2</p> <p>Erosion and sediment control practices (including any proprietary erosion and sediment control products) are designed, installed, constructed, operated, monitored and maintained, and any other erosion and sediment control practices are carried out in accordance with local conditions and appropriate recommendations from a suitably qualified person, or</p> <p>AO 4.3</p> <p>The ESCP demonstrates how stormwater quality will be managed in accordance with an acceptable regional or local guideline so that target contaminants are treated to a design objective at least equivalent to Acceptable Outcome AO 4.1.</p> |                                                                                                                             |
| Operate to avoid/minimise new impacts                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                             |
| <p>PO5</p> <p>Operational activities for the development avoid or minimises changes to waterway hydrology from adverse impacts of altered stormwater quality and flow.</p>                                                                                                                                                                                            | <p>AO 5.1</p> <p>Development incorporates stormwater flow control measures to achieve the design objectives set out below in Table 9.4.4.2 - Stormwater management design objectives and best practice environmental management, including management of frequent flows, peak flows, and construction phase hydrological impacts.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <p>Not Applicable</p> <p>The proposed works are not located within proximity to waterways as to impact their hydrology.</p> |
| <p>PO6</p> <p>Any treatment and disposal of waste water to a waterway accounts for:</p> <p>(a) the applicable water quality objectives for the receiving waters, and</p> <p>(b) adverse impact on ecosystem health or receiving waters, and</p> <p>(c) in waters mapped as being of high ecological value, the adverse impacts of such releases and their offset.</p> | <p>AO 6.1</p> <p>A WWMP is prepared in accordance with AO 2.1.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <p>Not Applicable</p>                                                                                                       |

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| <p>PO 7</p> <p>Wastewater discharge to a waterway is managed in a way that maintains ecological processes, riparian vegetation, waterway integrity, and downstream ecosystem health.</p>          | <p>AO 7.1</p> <p>Wastewater discharge waterways is managed to avoid or minimize the release of nutrients of concern so as to minimize the occurrence, frequency and intensity of coastal algal blooms.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <p>Not Applicable</p>                                                                                   |
| <p>PO 8</p> <p>Any non-tidal artificial waterway is managed and operated by suitably qualified persons in ways that demonstrate achievement of water quality objectives in natural waterways.</p> | <p>AO 8.1</p> <p>The artificial waterway is designed, constructed and managed under the responsibility of a suitably qualified RPEQ with specific experience in establishing and managing artificial waterways.</p> <p>AO 8.2</p> <p>Monitoring and maintenance programs adaptively manage water quality in the waterway to achieve relevant water quality objectives downstream of the waterway.</p> <p>AO 8.3</p> <p>Aquatic weeds are managed in ways that achieve a low percentage of coverage of the water surface area (less than 10 per cent). Pests and vectors (such as mosquitoes) are managed such as by avoiding stagnant water areas, providing for native fish predators, and if necessary, other best practices for monitoring and treating pests.</p> <p>AO 8.4</p> <p>The artificial waterway is managed and operated by a responsible entity under agreement for the life of the waterway. The responsible entity is to implement a deed of agreement for the management and operation of the waterway that:</p> <ul style="list-style-type: none"> <li>(a) identifies the waterway; and</li> <li>(b) states a period of responsibility for the entity; and</li> <li>(c) states a process for any transfer of responsibility for the waterway; and</li> </ul> | <p>Not Applicable</p> <p>No artificial waterway is proposed in association with the proposed works.</p> |

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|  | <ul style="list-style-type: none"> <li>(d) states required actions under the agreement for monitoring of the water quality of the waterway and receiving waters; and</li> <li>(e) states required actions under the agreement for maintaining the waterway to achieve the outcomes of this policy and any relevant approval conditions of the development; and</li> <li>(f) identifies funding sources for the above including bonds, infrastructure charges or levies.</li> </ul> |  |
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