

9.4.11 Works, services and infrastructure code

9.4.11.1 Application

- (1) This code applies to assessable development identified as requiring assessment against the Works, services and infrastructure code by the tables of assessment in **Part 5 (Tables of assessment)**.
- (2) All provisions in this code are assessment benchmarks for applicable assessable development.

9.4.11.2 Purpose and overall outcomes

- (1) The purpose of the Works, services and infrastructure code is to ensure that development works and the provision of *infrastructure* and services meets the needs of the development, and is undertaken in a sustainable manner in accordance with *best practice*.
- (2) The purpose of the Works, services and infrastructure code will be achieved through the following overall outcomes:-
 - (a) works are undertaken such that environmental harm and nuisance resulting from construction activities is avoided or minimised and the environmental values of water and retained *vegetation* are protected;
 - (b) development is designed and constructed to a standard that meets community expectations, prevents unacceptable off-site impacts and minimises whole of life cycle costs;
 - (c) physical and human *infrastructure* networks that provide basic and essential services and facilities to local communities are able to meet the planned increase in demand resulting from a planned increase in development density;
 - (d) development is provided with an appropriate level of water, wastewater treatment and disposal, drainage, energy and communications *infrastructure* and other services;
 - (e) *infrastructure* is designed, constructed and provided in a manner which maximises resource efficiency and achieves acceptable maintenance, renewal and adaptation costs;
 - (f) *infrastructure* is integrated with surrounding networks;
 - (g) development over or near *infrastructure* does not compromise or interfere with the integrity of the *infrastructure*; and
 - (h) *filling or excavation* does not adversely or unreasonably impact on the natural environment or adjacent properties and provides for sites to be suitably remediated to maximise landscape outcomes.

9.4.11.3 Performance outcomes and acceptable outcomes

Table 9.4.11.3.1 Performance outcomes and acceptable outcomes for assessable development

Performance Outcomes		Acceptable Outcomes	
Construction Management			
PO1	Air emissions, noise or lighting arising from construction activities and works do not adversely impact on surrounding areas.	AO1.1	Dust emissions do not extend beyond the boundary of the <i>site</i> .
		AO1.2	Air emissions, including odours, are not detectable at the boundary of the <i>site</i> .
		AO1.3	Works are only carried out between 7:00am to 6:00pm Monday to Saturday inclusive.
		AO1.4	Noise generating equipment is enclosed, shielded or acoustically treated in a manner

Performance Outcomes		Acceptable Outcomes	
		AO1.5	which ensures the equipment does not create environmental harm. Outdoor lighting complies with <i>AS4282-1997 Control of the Obtrusive Effects of Outdoor Lighting</i> .
PO2	Construction activities and works provide for:- (a) the protection of the aesthetic and ecological values of retained <i>vegetation</i> ; and (b) impacts on fauna to be minimised.	AO2.1	The health and stability of retained <i>vegetation</i> is maintained or enhanced during construction activities by:- (a) clearly marking <i>vegetation</i> to be retained with temporary fencing and flagging tape; (b) installing temporary barrier fencing around the outer drip line and critical root zone of the <i>vegetation</i> ; (c) preventing any filling, excavation, stockpiling, storage of chemicals, fuel or machinery within the fenced protection area; (d) using low impact construction techniques in the vicinity of <i>vegetation</i> to minimise interference with the <i>vegetation</i> ; and (e) removing all declared noxious weeds and environmental weeds from the <i>site</i> .
		AO2.2	All works carried out in the vicinity of retained <i>vegetation</i> comply with <i>AS4970 Protection of Trees on Development Sites</i> and <i>AS4687 Temporary Fencing and Hoarding</i> .
		AO2.3	Where construction activities will result in adverse impacts upon fauna and/or the clearing and/or removal of fauna habitat:- (a) a suitably qualified professional fauna spotter and catcher undertakes a fauna management report, pre-clearing inspections and is present for all clearing activities; (b) all vacant hollows and nests are relocated or rendered unusable to prohibit fauna return during clearing works; (c) all fauna is suitably relocated or humanely dealt with during the pre-clearing inspections or during clearing; and (d) 'offset' nesting hollows/nest boxes are provided in adjoining <i>vegetation</i> at least 1 month prior to the clearing,
PO3	<i>Vegetation</i> cleared from a <i>site</i> is disposed of in a manner that:- (a) maximises reuse and/or recycling; and (b) minimises impacts on public health and safety.	AO3	Where <i>vegetation</i> is cleared, vegetation waste is appropriately disposed of in the following order of preference:- (a) milling for commercial timber products, landscaping or firewood; (b) on-site chipping or mulching; (c) transportation off-site and disposal in an approved green waste disposal facility; and (d) use for forest floor habitat in adjoining bushland and revegetation areas.
PO4	Construction activities and works are managed such that all reasonable and practicable measures are taken to protect the environmental values of	AO4	Development is located, designed and constructed in accordance with an erosion and sediment control plan, prepared in accordance with the requirements specified

Performance Outcomes		Acceptable Outcomes	
	water and the functionality of stormwater <i>infrastructure</i> from the impacts of erosion, turbidity and sedimentation, both on and downstream of the development <i>site</i> .		in the Planning scheme policy for development works .
PO5	Construction activities and works are undertaken such that existing utilities, road and drainage <i>infrastructure</i> :- (a) continue to function efficiently; and (b) can be accessed by the relevant authority for maintenance purposes.	AO5.1	Existing utilities, road and drainage <i>infrastructure</i> are protected or relocated in accordance with the standards specified in the Planning scheme policy for development works .
		AO5.2	The costs of any alterations or repairs to utilities, road and drainage <i>infrastructure</i> are met by the applicant.
PO6	Traffic and parking generated during construction activities and works is managed to minimise impacts on the amenity of the surrounding area.	AO6	No acceptable outcome provided.
PO7	Construction activities and works provide for:- (a) minimisation of waste material; (b) separation of recyclable material; (c) storage of waste and recyclable material; and (d) collection of waste and recyclable material; in a manner that minimises adverse impacts on the amenity and safety of surrounding areas.	AO7	No acceptable outcome provided. Editor's note— Section 9.4.10 (Waste management code) sets out requirements for waste management.
Infrastructure, Services and Utilities			
PO8	Development is provided with <i>infrastructure</i> , services and utilities appropriate to its setting and commensurate with its needs.	AO8.1	Where development is located in an <i>urban zone</i> , appropriate connection is provided to reticulated sewerage, water supply, stormwater drainage, electricity, gas (where available in the street) and telecommunications services at no cost to the <i>Council</i> , including provision by way of dedicated road, public reserve or as a minimum by way of easements to ensure continued access is available to these services in accordance with the standards specified in the Planning scheme policy for development works , or where applicable, the requirements of the service provider.
		AO8.2	Where development is located in a <i>non-urban zone</i> and reticulated sewerage is not available, an on-site treatment and disposal system is provided that complies with the requirements of the <i>Plumbing and Drainage Act 2003</i> .
		AO8.3	Where development is located in a <i>non-urban zone</i> and reticulated water supply is not available, development is provided with appropriate on-site rainwater collection in accordance with the relevant use code. Editor's note— Section 9.4.6 (Stormwater management code) sets out requirements for stormwater management. Editor's note—the provision of telecommunications <i>infrastructure</i> is regulated in accordance with Federal Government legislation.
PO9	Development provides for	AO9.1	<i>Infrastructure</i> is planned, and appropriate

Performance Outcomes	Acceptable Outcomes
<p><i>infrastructure</i>, services and utilities that are planned, designed and constructed in a manner which:-</p> <ul style="list-style-type: none"> (a) ensures appropriate capacity to meet the current and planned future needs of the development; (b) is integrated with and efficiently extends existing networks; (c) minimises risk to life and property; (d) avoids, or where avoidance is not practicable minimises and mitigates, adverse impacts on <i>ecologically important areas</i>; (e) minimises risk of environmental harm; (f) achieves acceptable maintenance, renewal and adaptation costs; (g) can be easily and efficiently maintained; (h) minimises potable water demand and wastewater production; (i) ensures the ongoing construction or operation of the development is not disrupted; (j) where development is staged, each stage is fully serviced before a new stage is released; (k) ensures adequate clearance zones are maintained between utilities and dwellings to protect residential amenity and health; (l) preserves visual amenity in key areas (i.e. in centres or along scenic routes); and (m) minimises interference with the passage of pedestrians in areas of high pedestrian traffic. 	<p>contributions made, in accordance with the Local Government Infrastructure Plan or any other applicable infrastructure charging instrument.</p> <p>AO9.2 <i>Infrastructure</i> is planned, designed and constructed in accordance with <i>Council's</i> Local Government Infrastructure Plan, and the Planning scheme policy for development works, or where applicable, the requirements of the service provider.</p> <p>AO9.3 Compatible public utility services are co-located in common trenching in order to minimise the land required and the costs for underground services.</p> <p>AO9.4 Stormwater drainage, sewerage and sullage systems are designed so that overflows do not enter residences.</p> <p>AO9.5 <i>Infrastructure</i>, services and utilities are located and aligned so as to:-</p> <ul style="list-style-type: none"> (a) avoid disturbance of <i>ecologically important areas</i>; (b) minimise earthworks; and (c) avoid crossing <i>waterways</i> or <i>wetlands</i>. <p>OR</p> <p>Where the provision of <i>infrastructure</i> has adverse impacts upon an <i>ecologically important area</i> which cannot reasonably be avoided, development provides for a biodiversity offset for the area of an <i>ecologically important area</i>, in accordance with the following:-</p> <ul style="list-style-type: none"> (a) the biodiversity offset requirements specified in Table 9.4.9.3.2 (Biodiversity offset requirements) of Section 9.4.9 (Vegetation management code); and (b) the standards specified in the Planning scheme policy for biodiversity offsets. <p>AO9.6 Where the crossing of a <i>waterway</i> or <i>wetland</i> cannot be avoided, tunnel boring techniques are used to minimise disturbance and disturbed areas are reinstated and revegetated on completion of works.</p> <p>AO9.7 The selection of materials used in the construction of <i>infrastructure</i> is suitable, durable, easy to maintain and cost effective, taking into account the whole of life cycle cost, and achieves <i>best practice</i> environmental management and energy savings.</p> <p>AO9.8 Except where in the Rural zone, electrical and telecommunications reticulation <i>infrastructure</i> is provided underground in:-</p> <ul style="list-style-type: none"> (a) greenfield developments; (b) development involving the creation of more than 5 lots;

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			(c) development in <i>centre zones</i> ; and (d) development in areas of high scenic amenity.
Works Over or Near Sewerage, Water and Stormwater Drainage Infrastructure			
PO10	Building or operational work near or over the <i>Council's</i> stormwater <i>infrastructure</i> and/or sewerage and water <i>infrastructure</i> :- (a) protects the <i>infrastructure</i> from physical damage; and (b) allows ongoing necessary access for maintenance purposes.	AO10	Building or operational work near or over the <i>Council's</i> stormwater <i>infrastructure</i> and/or sewerage and water <i>infrastructure</i> complies with the Planning scheme policy for development works and the requirements of the water and sewerage service provider.
Filling or Excavation			
PO11	<i>Filling or excavation</i> :- (a) does not cause environmental harm; (b) does not impact adversely on visual amenity or privacy; (c) maintains natural landforms as far as possible; (d) provides for remediated soil conditions to support the successful establishment of landscapes; and (e) is stable in both the short and long term.	AO11	Development provides that:- (a) on sites:- (i) with a <i>slope</i> of 15% or more, or as identified in the Planning scheme policy for development works , the extent of excavation (cut) and fill does not involve a total change of more than 1.5 metres relative to the <i>natural ground level</i> at any point; or (ii) in other areas, the extent of excavation (cut) and fill does not involve a total change of more than 1.0m relative to the <i>natural ground level</i> at any point; (b) no part of any cut or fill batter is within 1.5 metres of any property boundary, except cut and fill involving a change in ground level of less than 200mm that does not necessitate the removal of any <i>vegetation</i> ; (c) retaining walls are no greater than 1.0 metre high; (d) retaining walls are constructed a minimum 150mm from property boundaries; (e) all stored material is:- (i) contained wholly within the <i>site</i> ; (ii) located in a single manageable area that does not exceed 50m ² ; and (iii) located at least 10 metres from any property boundary; (f) topsoil is harvested, stockpiled, remediated and reused in a manner that supports achievement of site specific vegetation performance objectives; and (g) any batter or retaining wall is structurally adequate.
PO12	<i>Filling or excavation</i> does not result in any contamination of land or water, or pose a health or safety risk to users and neighbours of the <i>site</i> .	AO12	Development provides that:- (a) no contaminated material is used as fill; (b) for excavation, no contaminated material is excavated or contaminant disturbed; and (c) waste materials are not used as fill, including:- (i) commercial waste; (ii) construction/demolition waste; (iii) domestic waste; (iv) garden/vegetation waste; and (v) industrial waste.
PO13	The location and extent of <i>filling or excavation</i> is consistent with the	AO13	The extent of <i>filling or excavation</i> is in accordance with an existing development

Performance Outcomes		Acceptable Outcomes	
	intended use of the <i>site</i> .		approval for a material change of use, reconfiguring a lot or building work (which has not lapsed).
PO14	<i>Filling or excavation</i> does not prevent or create difficult access to the property.	AO14	Driveways are able to be constructed and maintained in accordance with the requirements of the Planning scheme policy for development works .
PO15	<i>Filling or excavation</i> does not cause significant impacts through truck movements, dust or noise, on the amenity of the locality in which the works are undertaken or along routes taken to transport the material.	AO15	<i>Filling or excavation</i> is undertaken in accordance with the requirements of the Planning scheme policy for development works .
PO16	The transportation of materials in association with <i>filling or excavation</i> activities minimises adverse impacts on the road system.	AO16	Material is transported in accordance with the requirements of the Planning scheme policy for development works .