Byron Shire Development Control Plan 2014

Chapter B3
Services



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Document History

Doc No.	Date Amended	Details (e.g. Resolution No.)
#E2014/5449	20 March 2014	Res 14-118 – Public exhibition version
#E2014/32402		Draft to 26 June 2014 Extraordinary Meeting - for adoption
#E2014/42564	26 June 2014	Adopted Version – Res 14-315
#E2018/26196	22 March 2018	Adopted 22 March 2018 Effective 12 April 2018 – Res 18-130
		'Housekeeping' amendment (various chapters).
#E2019/29440	April 2019	Public Exhibition version (Res 19-091) 24.2018.65.1
#E2019/28932	June 2019	Housekeeping amendment for adoption at Planning 15 August 2019 planning meeting
E2019/65469	15 August 2019	Res 19-374 – Adopted 15 August 2019 Effective 11 September 2019
E2022/87901	October 2022	Draft - pdf attachment to Council meeting 13/10/2022 DCP 2014 Amendments 2022, amendments in red text
E2022/52485		Res 22-554 Public Exhibition version
E2022/52485	January 2023	Adopted 5 December 2022, Effective 25 January 2023 Res 22-554, DCP 2014 Amendments 2022

B3.1 Introduction

B3.1.1 Purpose of this Chapter

The purpose of this Chapter is to identify the minimum requirements necessary to adequately service development for water, sewer, stormwater management, on-site effluent disposal and other necessary infrastructure.

B3.1.2 Aims of this Chapter

The Aims of this Chapter are:

- 1. to protect the environment and public health
- 2. to ensure developments are adequately serviced with necessary infrastructure
- 3. to enable Council to plan and co-ordinate the installation of necessary services

B3.1.3 Application of this Chapter

This Chapter applies to all development where services are required to facilitate the construction and ongoing operation of the development.

B3.1.4 Relevant Byron LEP 2014 Provisions

The provisions of Clause 6.2 Essential Services requires that development consent should not be granted unless adequate arrangements have been made in relation to the supply of water, supply of electricity, the disposal and management of sewage, stormwater management and suitable road access. This Chapter provides more detailed guidelines as to how satisfy the provisions of Clause 6.2.

B3.2 Development Controls

B3.2.1 Provision of Services

Objectives

- 1. Ensure adequate water, electricity, sewerage, drainage, road and telecommunication facilities are provided to development;
- 2. Provide flexibility for the provision of alternative water, electricity and telecommunications sources where appropriate;
- To ensure provision of adequate engineering and safety standards for public road access, together with equitable apportionment of road upgrading requirements and associated costs for development served by existing public roads, un-constructed or partially constructed public roads and Crown Roads.

Performance Criteria

There are no performance criteria.

Prescriptive Measures

1. Water Supply

- a) Development shall be provided with an adequate water supply connection or have suitable arrangements in place for the provision of an adequate water supply service.
- b) Development requiring a water supply from off-site is to be connected to a reticulated water system where such a connection is practically available to the site. Alternate water sources may be provided in conjunction with reticulated services.
- c) For Reticulated Water, the following applies:
 - i) The water supply system must be located and designed to optimise the effective building envelope of each parcel of land designed for occupation, having regard to site constraints.
 - ii) All water mains within private property must be located within easements designed in accordance with Council's requirements.
 - iii) Pump Stations, Hydrants, Metering and other ancillary works must be located with due consideration to the amenity of the subdivision, adjacent developments, and the environment; and provide for the access and maintenance requirements of the Council.
 - iv) Subdivisions and residential development must demonstrate with compliance with relevant NSW Fire and Rescue Guidelines for provisions of hydrants.
- d) Businesses or facilities (e.g. caravan parks, camping grounds, farm stay accommodation, educational establishments, restaurants or cafes) that supply people with drinking water from an independent water supply shall comply with the *Private Water Supply Guidelines*, published by NSW Health. This includes water pumped from rivers, creeks, bores, dams and rainwater tanks. It does not include supplies provided by water utilities or individual household supplies.
- e) A business involved in the preparation or manufacture of food must use potable water for all activities associated with these activities. Non potable water may be used only where it can be demonstrated that it will not adversely affect the safety of the food handled by the business.
- f) Rural dwellings without reticulated water are to have a **minimum** domestic tank capacity of 40,000 litres. Secondary dwellings must have a minimum 20,000 litres in addition to the primary dwelling requirements. For applicants who seek to be better prepared for extended periods of little or no rain, please refer to Section 8.4 of the Byron Rural Settlement Strategy 1998. In bushfire prone areas additional water dedicated for fire fighting purposes is to be provided. For specific bushfire requirements please refer to the current version of the NSW Rural Fire Service (RFS) *Planning for Bushfire Protection* and any additional design information included in the Practice Notes or Fast Facts Sheets provided by the RFS.

g) Substantial contributions and developer charges may be payable in relation to different types of development. Applicants should contact Council before preparing a development application to determine what costs are involved.

Note: Applicants should be aware of Council's equivalent tenement (ET) policy and make enquiries to Council or on Council's website as to the required charges.

2. Electricity Supply

- a) Development shall be provided with an adequate connection to grid supplied electricity services or its equivalent. Transformers and associated infrastructure is to be contained within the development.
- b) Alternative electricity sources for development other than urban and rural residential subdivision may be considered where the applicant can demonstrate the provision of reticulated services is prohibitive due to cost of connection or there is a clear environmental benefit in not connecting to mains infrastructure (e.g. enables supply from renewable sources, avoids the need to remove areas of high environmental value vegetation and habitats). Details are to be provided with the development application.

3. Telecommunications Infrastructure

- a) Development shall be provided with access to the telecommunications network for fixed line telephone services.
- b) Developers are required to install fibre ready facilities for all developments unless exempted by Planning Circular No. PS 17-005. Arrangements are to be made for the provision of fixed-line telecommunications infrastructure in the fibre-ready facilities to all individual lots and/or premises in a real estate development project demonstrated through an agreement with a carrier.
 - Developers are to have regard to other new technologies to improve telecommunications speeds for the internet and other computer based communication devices, and to facilitate new and evolving industries.
- c) Alternative means of telecommunications access for rural subdivision may be considered where the applicant can demonstrate that an NBN Fixed Wireless service is available and is supported by a letter from NBN Co Limited confirming that each allotment can be serviced by such a system.
 - Approvals for rural subdivisions utilising alternative means of telecommunications access will require restrictions on the title of all new allotments consistent with the concept sought by the developer (e.g. fixed line telephone services not provided).
- 4. Alternative means of telecommunications access for development other than subdivision may be considered where the applicant can demonstrate that the provision of fixed line services is prohibitive due to the cost of connection or that there is a clear environmental benefit in not connecting to fixed line infrastructure. Details are to be provided with the development application.

5. Sewage Management

- a) Development shall be provided with an adequate reticulated sewer connection or have suitable arrangements in place for such a connection to be made where access to reticulated sewer is available.
- b) For reticulated sewer the following applies:
 - The system must be sized and designed in accordance with the Northern Rivers Development and Design Manual;
 - ii) Sewer reticulation for the proposed development must be constructed at the proponent's cost by an approved contractor;
 - iii) A sewer connection point must be provided to each parcel of land designed for separate occupation. The system must be designed to optimise the effective building envelope of each lot;
 - iv) All sewer mains and rising mains must be located within easements designed in accordance with Council's requirements;
 - v) Pump Stations, Wells, Access Chambers, Vents and other ancillary works must be located with due consideration to the amenity of the subdivision, of adjacent developments and the environment. Consideration must be given to noise, odours and the aesthetic impact of the system, and to access and maintenance requirements of the Council.
- c) Where access to reticulated sewer is not available, arrangements must meet the requirements of Section B3.2.2 in relation to on-site sewage management.
- d) Substantial contributions and developer charges may be payable in relation to different types of development. Applicants should contact Council before preparing a development application to determine what costs are involved.

Note: Applicants should be aware of Council's equivalent tenement (ET) policy and make enquiries to Council or on Council's website as to the required charges.

6. Stormwater and Drainage

Development must comply with the requirements set out in Sections B3.2.3 and B3.2.4 relating to stormwater management and erosion and sedimentation control.

- 7. Road Access General (Including Driveways)
 - a) Development must comply with road access requirements contained in Chapter B4 Traffic Planning, Vehicle Parking, Circulation and Access, and the *Northern Rivers Development & Design Manual*.
- 8. On **bushfire prone land**, road access may need to be improved to facilitate access by the NSW Rural Fire Service. For specific requirements please refer to the current version of the NSW RFS *Planning for Bushfire Protection* and any additional design information included in "Practice Notes or Fast Facts Sheets".
- 9. Road Access Council controlled roads

Where development is proposed with frontage to a Council controlled road, or where access to a development site relies on a Council controlled road, the following road construction and upgrading requirements will apply:

- a) Construction or upgrading of the adjoining road to Council's adopted engineering standards, currently the *Northern Rivers Development Design & Construction Manuals*, for the full frontage of the property. In cases where the development is staged or does not utilise the full property frontage a reduced length of frontage construction may be applied applicants should discuss those cases with Council's development engineer before lodging a Development Application. Council may require upgrading for the full frontage or more, for safety, dust, noise, amenity, or environmental reasons. Laneway construction or upgrading should be in accordance with Chapter D6 Subdivision (D6.4.3).
- b) Where road(s) providing access to the immediate site frontage do not meet Council's construction standards to accommodate the additional traffic volume predicted to be generated by the proposed development, Council will require partial or full construction or upgrading of those road(s) to Council's adopted engineering standards, currently the *Northern Rivers Development Design & Construction Manuals*. The proportional quantum of the construction required will be based on the proportion of the volume of traffic predicted to be generated by the proposed development relative to the total traffic predicted on the access road. If in Council's opinion the proportional works or equivalent contribution will not be sufficient to provide a safe and practical standard of road access Council may refuse consent to the development application.
- c) In cases where the above requirements are not appropriate to the proposed development developers may seek to enter into a Voluntary Planning Agreement with Council pursuant to Section 93F of the *Environmental Planning and* Assessment Act 1979 to address access road requirements.
- d) Where the construction or upgrade works are specifically identified in an adopted contributions plan and the works are not required to provide a safe and practical standard of road access, the works can be provided for by-payment of the relevant contributions. If the works are required, the Council may accept an offer by the applicant to provide the works as an "in-kind" contribution (i.e. the applicant completes part or all of the work identified in the Plan) in lieu of the payment of the monetary contribution. The applicant should make any request for an "in-kind" contribution at the time of lodging a Development application.

10. Road Access – Crown Roads:

- a) Crown Roads are public roads administered by the NSW Land and Property Management Authority under the Roads Act 1993. Crown roads are generally available as 'natural terrain roads' to provide a means of public access for pedestrians, vehicles (where possible) and to drive stock. The entitlement to use a Crown Road for the purpose of access must not be interpreted as an automatic right to undertake construction or upgrading works to improve access along the Crown road.
- b) In most cases where development consent is sought that requires access from a Crown Road, the ownership will likely be given to Council or TfNSW and require upgrading in part or full to Council's standards. The road standards applied will be

the same as for Council controlled roads, discussed above. Applicants may wish to consider alternative access if they do not want to upgrade a Crown Road.

B3.2.2 On-site Sewage Management

Objectives

- To ensure that on-site sewage management systems are designed and operated to ensure protection of ground and surface water, including drinking water supplies;
- 2. To ensure rural residential developments including rural subdivisions are adequately serviced with on-site sewage management system(s);
- 3. To ensure **on-site sewage management systems** that service or are required for industrial, commercial and rural industries are appropriately designed.
- 4. To encourage and provide for the use of water recycling systems where appropriate;
- 5. To minimise public health risk including the spread of disease by micro-organisms;
- 6. To prevent degradation of soil and vegetation including soil structure, salinisation, water logging, chemical contamination and soil erosion; and
- 7. To ensure that neighbouring properties are not adversely affected by effluent or effluent management systems.

Performance Criteria

There are no performance criteria.

Prescriptive Measures

- 1. Residential, commercial and industrial development that produces sewage and is not to be connected to the urban sewage system must comply with the Council's *Design Guidelines for On-Site Sewage Management for Single Households*.
- 2. A detailed on-site sewage management report may be required with a development application depending upon the scale of the development, the size of the land and distances to watercourses. A report is generally required with a Development Application for systems that service rural dwellings on land less than 1 hectare, rural and rural residential subdivisions creating lots smaller than 5 ha, rural tourist and commercial developments, or for dwellings on constrained land such as:
 - a) steeply sloping land > 15%,
 - b) land within 100 metres to permanent surface water, 250 metres to groundwater wells or 40 metres to intermittent watercourse, dams, dry gullies and drainage channels;
 - c) flood prone land;
 - d) land within 12 metres to a neighbouring property; or

- e) land subject to erosion or mass movement;
- f) land with poor soils (clay or sand); or
- g) land located within the drinking water catchment

For further details on constrained land see Council's *Design Guidelines for On-Site Sewage Management for Single Households* and Chapter C4 Development in a Drinking Water Catchment for land in the **drinking water catchment**.

Applicants proposing an **on-site sewage management system** are encouraged to Contact Councils Environmental Health Officers to discuss the level of detail to be submitted with a development application.

Note: The Rous Water On-site Wastewater Management Guidelines may assist applicants to identify appropriate solutions to situations when site limitations represent a risk to drinking water quality.

- 3. Generally, as a minimum secondary treatment will be required. Primary treatment is not supported. For developments on small lots, tertiary level treatment will likely be required. Upgrades to an existing on-site sewage management system may be required when alterations or additions to an existing dwelling house are proposed (depending on the age, capacity and performance of the existing system, and the scale and size of the development).
- 4. Plans must be submitted with reports to show the location of the **on-site sewage management system** drawn to scale relative to boundaries, structures (proposed and existing), roads and driveways, environmentally sensitive areas and vegetation, **watercourses**, bores, dams, and other topographic features. Details of the type of system, storage capacity and area for land disposal must be indicated.

Note: In addition to any development approval obtained as above, separate approval must be obtained under Section 68 of the Local Government Act 1993 with respect to **on-site sewage management systems**. This includes new systems as well as alterations/ upgrades to existing systems. An application for Section 68 approval can be made concurrently with a development application or separately. Such an application under Section 68 requires a detailed on-site sewage management report.

B3.2.3 Stormwater Management

Objectives

- To promote on-site stormwater management practices that support the 'predevelopment' hydrological regime (surface flow, streams and groundwater).
- 2. To ensure that new development does not reduce the effectiveness of existing drainage patterns (including built infrastructure).
- 3. To minimise the impacts of stormwater runoff from a site on adjoining properties.
- 4. To provide an acceptable level of protection against personal injury and property damage due to localised stormwater runoff.

- 5. To promote on-site retention, detention and infiltration of stormwater.
- 6. To promote stormwater harvesting and other forms of innovative water conservation.
- 7. To promote better integration of stormwater management into development proposals.
- 8. To ensure that on-site stormwater management facilities can be economically maintained, and that adequate arrangements are made for on-going maintenance.
- 9. To provide for the ongoing environmental health of receiving waters;
- 10. To ensure that stormwater management systems protect ground and surface water and other ecological values;
- 11. To achieve best practice stormwater treatment targets for stormwater quality.

Performance Criteria

There are no performance criteria.

Prescriptive Measures

1. <u>Development Applications</u>

Development applications must contain sufficient information to assess whether the proposed stormwater system is effective and feasible, both within the site and in its connection to the public drainage system.

An approval of the stormwater management system may be required under Section 68 of the Local Government Act 1993 or Section 138 of the Roads Act 1993.

An applicant may lodge detailed stormwater management plans with the development application for concurrent approval *under Section 68 of the Local Government Act 1993* and *Section 138 of the Roads Act 1993*, as necessary. Alternatively stormwater management concept plans must be lodged with the development application and a condition of consent will require the relevant approvals prior to issue of the Construction Certificate.

Plans showing the method of draining the land are to be in accordance with the Northern Rivers Local Government Development Design and Construction Manuals, Byron Shire Council Comprehensive Guidelines for Stormwater Management and relevant Australian Standards. Sample drawings developed as part of the Northern Rivers Local Government Development Design and Construction Manuals provide guidance on the type of information that should be included in stormwater management plans for subdivision works. AS/NZS 3500.3:2003 Plumbing and drainage - Stormwater drainage is the relevant Australian Standard at the time of writing this document. Appendices C and K of AS/NZS 3500.3:2003 provide guidance on the type of information that should be included in stormwater management plans for building works.

Council's manuals, and guidelines, including standard and sample drawings, are available on Council's website.

2. Properties adjacent to or containing waterways

Lands identified as containing or directly adjoining waterways may be subject to inundation (during the 1 in 100 year ARI storm event). Development applications must demonstrate that the proposal complies with the requirements of the Northern Rivers Development and Design Manual. Development proposals in close proximity to waterways or other areas of possible inundation must be accompanied by a hydrologic study submitted by an appropriately qualified person to demonstrate that the proposal or any future development will not interfere with the natural flowpath or be subject to flooding (refer to Chapter C2 Areas Affected by Flood). Appropriate buffers to waterways must be provided.

3. Site Drainage

- Site drainage shall be in accordance with the Northern Rivers Local Government Development Design and Construction Manuals, Byron Shire Council Comprehensive Guidelines for Stormwater Management and relevant Australian Standards.
- b) For building works, the piped property drainage system is to capture and convey to a lawful point of discharge all stormwater runoff from the following areas of the development site:
 - i) impervious areas including roofs, paved areas and driveways
 - ii) areas subject to changes to ground level (existing) including excavation or filled areas
 - iii) areas where the natural or pre-development overland flow regime is disrupted to the potential detriment of an adjoining property.
- c) The development must not introduce, impede or divert stormwater runoff in such a manner as to increase stormwater flow across a boundary onto adjoining property. Concentrated, collected or diverted stormwater flow onto an adjoining property must be at a lawful point of discharge.

4. <u>Lawful Point of Discharge</u>

- a) A lawful point of discharge exists at a particular location, if:
 - the location of the discharge is under the lawful control of the Council or other statutory authority from whom permission to discharge has been received;
 and
 - ii) in discharging in that location, the discharge will not cause an actionable nuisance.
- b) Where a **lawful point of discharge** is not available in the vicinity drainage may need to be constructed and any easements may need to be acquired to direct collected stormwater to a **lawful point of discharge**. Negotiations with property owners must be undertaken along feasible easement routes to determine whether an easement can be obtained to provide stormwater system that will drain by gravity to a public drainage system. Where easements are proposed over downstream properties for drainage purposes, a letter of consent from the owner(s) of the downstream properties must be submitted with the development application.

- c) For properties involving building works generally at a higher level than the adjoining road, where the site drainage system can be piped under gravity to the road drainage system, then the discharge is to be connected to the street drainage system.
- d) For properties involving building works generally at a lower level than the adjoining road, where the site drainage system cannot be piped under gravity to the road drainage system, the discharge is to be carried out entirely in accordance with one of the following options:
 - i) Discharge to a public drainage system within the development site.
 - ii) Private drainage easement across neighbouring properties.
 - iii) Charged systems, but ONLY for residential developments up to and including a single dwelling where it can be demonstrated that an easement cannot be obtained and where the roof gutters are sufficiently above the road gutter to permit drainage via a (pressurised) sealed system.
 - iv) Dispersion trenches, but ONLY for residential developments up to and including a single dwelling, where it can be demonstrated that an easement cannot be obtained and sufficient land is available.
 - v) Infiltration trenches, but ONLY where it can be demonstrated that: an easement cannot be obtained; there is sufficient land available; the underlying soil is sandy enough to infiltrate all runoff up to the 20 year ARI storm; and infiltration will not lead to contamination of the groundwater. Other storm events may be considered having regard to the consequences of failure and impacts on downstream properties.
 - vi) Pump-out systems, but ONLY for basement car park areas where: it can be demonstrated that, if gravity drainage is not possible, an easement cannot be obtained; the contributing catchment is the driveway ramp only, up to a maximum of 60 m²; and, pump failure will not cause overflow affecting neighbouring properties or habitable floor areas.

5. Easements

- a) Easements are to be in accordance with the Northern Rivers Local Government Development Design and Construction Manuals.
- b) Where a site is traversed by a drain (under the control of Council) that is not within an easement, a suitable easement must be created in favour of the Council.
- c) Where an easement is benefiting private property(s) only, the easement is not to be to the benefit of Council.
- d) Where an easement is required to be created a written agreement must be made between all relevant parties agreeing to its creation. Evidence of the written agreement to the creation of the easement is to be submitted with a Development Application. Council may grant deferred commencement consent subject to easement creation.

6. On-site Stormwater Detention (OSD)

- a) On-site Stormwater Detention (OSD) shall be provided in accordance with the Northern Rivers Local Government Development Design and Construction Manuals, Byron Shire Council Comprehensive Guidelines for Stormwater Management and relevant Australian Standards.
- b) OSD shall generally be incorporated into all development (except as provided by 'c)' below), including the following:
 - i) residential, commercial and industrial development;
 - ii) educational establishments, hospitals, community services and other institutions;
 - iii) public buildings;
 - iv) impervious car parks; and
 - v) tennis and other impervious playing courts.
- c) OSD is not required in the following circumstances:
 - i) where the total net increase in impervious area is less than 150 m²;
 - ii) if the application is for or relates to a dwelling house unless a restriction on title specifies otherwise;
 - iii) if the application is for development on land zoned RU1, RU2, or R5 unless needed to provide a **lawful point of discharge**;
 - iv) where the site drains directly to a trunk drainage system within the tidal reach of a river or stream:
 - v) where the site is located within a catchment within which a regional detention structure has been provided for the ultimate development of the catchment;
 - vi) where dispersion or infiltration is used as the means of stormwater discharge from the site; or
 - vii) where a Consulting Engineer has undertaken a detailed analysis of the entire catchment and demonstrated that the provision of detention on the subject property, including consideration of the cumulative affect of detention provision across the catchment, will provide no benefit to any downstream drainage system for storm frequencies between the 5 year and 100 year ARI.

7. Stormwater Quality and Treatment

a) Applications for development types listed in Table B3.1 (including redevelopment) must address the "key" pollutants identified in that table (see below).

Table B3.1 - Key pollutants in stormwater flows to be addressed

Development Type	Litter	Coarse Sediment	Fine Particles	Total Phosphorous	Total Nitrogen	Hydrocarbons, motor fuels, oils & grease
Low Density Residential ^{1.} bed and breakfast accommodation & farm stay accommodation	Y	N	N	Y	Y	N
Medium Density Residential ² & tourist and visitor accommodation (excluding bed and breakfast accommodation & farm stay accommodation)	Y	Y	Y	Y	Y	N
Commercial, Shopping & Retail Outlets	Υ	Y	Y	N	N	N
Industrial	Υ	Υ	Υ	?	?	Υ
Car Parks, Service Stations & Wash Bays	Y	Υ	Υ	N	?	Υ

Υ Key pollutant, needs to be addressed.

Variable, requires site specific assessment.

Ν Not significant.

(Source: Adapted from the Byron Shire Urban Stormwater Management Plan)

"Low Density Residential" development refers to dual occupancies, dwelling houses, rural workers' dwellings, secondary dwellings, shop top housing

comprising 2 or less dwellings and semi-detached dwellings.

"Medium Density residential" development refers to attached dwellings, 2.

boarding houses, group homes, hostels, multi dwelling housing, residential flat buildings, seniors housing and shop top housing comprising 3 or more

dwellings.

b) Applications for subdivisions and developments involving an area of land greater than 2,500m² must provide measures to address the "key" pollutants in accordance with Table B3.2 for all stormwater flows up to 25% of the 1 year ARI peak flow from the development site.

Table B3.2 – Pollutants and Retention Criteria

Pollutant / Issue	Retention Criteria		
Litter	70% of average annual load greater than 5mm.		
Coarse Sediment	80% of average annual load for particles 0.5mm or less.		
Fine Particles	50% of average annual load for particles 0.1mm or less.		
Total Phosphorous	45% of average annual load.		
Total Nitrogen	45% of average annual load.		
Hydrocarbons, motor fuels, oils & grease	90% of average annual load.		

- c) Runoff from all areas (including roofs and paved areas) needs to be treated. Significant water quality improvements can be achieved by configuring a sequence of treatment measures (a 'treatment train'). Such measures may include roofwater tanks, infiltration devices, filtration & bio-retention devices, porous paving, grassed swales, better landscape practices, ponds & wetlands and stormwater tanks. The suitability of treatment measures will depend largely on site conditions. For example, infiltration devices are not suitable in areas with heavy clay soils and subsoils.
- d) A soil and water management plan is required where the area of soil surface disturbance exceeds 2500m². Sites of this scale typically require sediment retention basins to minimise sediment pollution.

B3.2.4 Sedimentation and Erosion Control Measures

Objectives

- 1. Encourage implementation of contemporary best practice in erosion and sediment control:
- 2. Prevent land degradation by soil erosion through inappropriate land use practices;

Effective 25 January 2023

- 3. Protect waterways and sensitive environments from being degraded by increased sediment load:
- 4. Promote and protect biodiversity by minimising cumulative impacts of sedimentation on the environment; and
- 5. Protect amenity and prevent discharge of sediment on to both **public land** and private land.

Performance Criteria

There are no performance criteria.

Prescriptive Measures

- An erosion and sediment control plan is required where the area of soil surface disturbance is in the range 250m² – 2 500m², or where the area of soil surface disturbance is less than 250m² but the site has either a slope exceeding 20% or immediately adjoins a waterway.
- 2. A soil and water management plan is required where the area of soil surface disturbance exceeds 2 500m². Sites of this scale typically require sediment retention basins to minimise sediment pollution.
- 3. Plans must be prepared in accordance with Northern Rivers Local Government Development Design and Construction Manuals, Byron Shire Council Comprehensive Guidelines for Stormwater Management and 'Managing Urban Stormwater: Soils and Construction' (Landcom, Sydney, 2003). An approval must be obtained for the plan from Council, under *Section 68 of the Local Government Act, 1993*, prior to issue of a Construction Certificate.