

Stormwater management concept plan – 177 New Bright Road Ocean Shores

Section B3.2.3 - Stormwater Management of the Byron Development Control Plan advises that the objectives are to:

1. 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.

Whilst there are no performance criteria for these objectives the Prescriptive Measures are that:

1. Development Applications 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.

As both the existing development and the proposed development have on-site stormwater disposal it appears that there are no requirement(s) for an approval of the stormwater management system under Section 68 of the Local Government Act 1993, as there will be no connection to the Council's stormwater system.

The design for the final on-site stormwater disposal system will be included in the relevant building work plans and specifications for the construction certificate as is required by Clause 8(4)(b)(ii) of the Environmental Planning and Assessment (Development Certification and Fire Safety) Regulation 2021.

However, to comply with Council request for additional information under Clause 36 of the *Environmental Planning and Assessment Regulation 2021* the stormwater concept plan has been provided below and is attached:

Stormwater concept plan details

1. Existing and proposed finished surface contours at relevant intervals and spot levels.

Response: The existing and proposed finished (existing) surface contours are not proposing to be varied with the exemption of the minor driveway addition to the addition carparking spaces. Below are the current surface contours with the whole of the property being around 2m AHD and raising slightly up to the existing dwelling area.



Figure 1: Contour Plan. (Source: Byron Shire Council GIS)

2. Proposed and existing building locations and floor levels.

Response: The development plans show the proposed / existing building locations and floor levels.

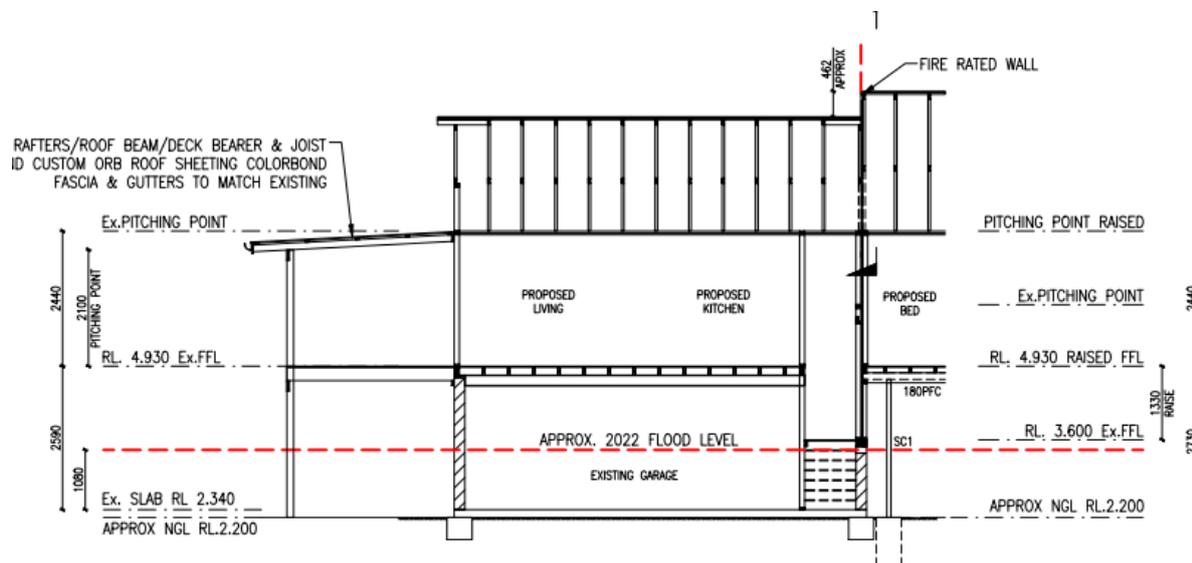


Figure 2: Proposed and existing building floor levels. (Source: Byron Shire Council GIS).

3. Street levels including gutter.

Response: There is no street levels / gutters with the area, all stormwater is to be disposed of on-site.

4. Proposed infiltration measures (e.g. soakage trenches, swales, landscaping, permeable pavements, etc.). Where infiltration failure will affect a neighbouring property and the development involves more than a single dwelling (e.g. multi-unit residential, commercial, industrial etc) then detailed infiltration test results and detailed designs are required.

Response: Stormwater harvesting and collection from the dwelling is proposed to be directed to the 20000L Bushfire Static Water Supply (SWS) and a 3000L Basix tank with the overflow proposed to be directed to an infiltration soakage trench. Due to the size of the property and location of the existing and proposed infiltration pits, an infiltration failure will not affect the neighbouring property as the overflow would follow the natural drainage channels as such detailed infiltration test results and detailed designs are not required as this stage.

5. Proposed discharge points to the public stormwater drainage system (show levels at these locations).

Response: There is no proposal to discharge to the public stormwater drainage system.

6. Site constraints such as trees, services or structures that may affect the drainage system.

Response: The attached stormwater plan includes existing and proposed development that will be connected to the proposed stormwater collection and disposal systems. The plans also identify trees, structures and services (easements) however these structures, trees and services will not affect the drainage and disposal systems.

7. Existing or proposed drainage easements.

Response: No existing or proposed stormwater drainage easements are to be installed. The development plans show the existing easement for sewer however the disposal area is located on the opposite side of the dwelling.

8. Any surface flow paths or flood-affected areas.

Response: There is a surface water flow paths to the west of the proposed development and the whole of the allotment is generally flood affected.



Figure 3: Flood mapping. (Source: Byron Shire Council GIS)

9. Conceptual location and levels of proposed stormwater pipes and drainage pits.

Response: The conceptual location of the services are nominated on the Stormwater Concept Plan.

10. Conceptual location and approximate area of proposed on-site detention facilities.

Response: The conceptual location of the tunnel trench from the overflow is nominated on the Stormwater Concept Plan.

11. Proposed on-site detention stored water invert levels and emergency spillways.

Response: Not applicable for this development.

12. Proposed management controls for flows entering, within and leaving the site.

Response: Not applicable for this development.

13. Preliminary on-site detention calculations.

Response: Not applicable for this development.

14. Justification that the proposed design measures will not cause adverse stormwater impacts on adjoining properties

Response: The proposed design measures will be in addition to the existing drainage that has been existing on this site for approximately 20 years (see previous design measures below). There have been no issues raised from adjoining neighbours, with stormwater that is not absorbed within the large allotment eventually percolating into the natural drainage channels on the property. As such the proposed improvement will not only not cause adverse stormwater impacts on adjoining properties, with the additional harvesting of the existing roof areas for SWS and BASIX water supplies and the additional disposal tunnel trench likely reduce the existing potential runoff.

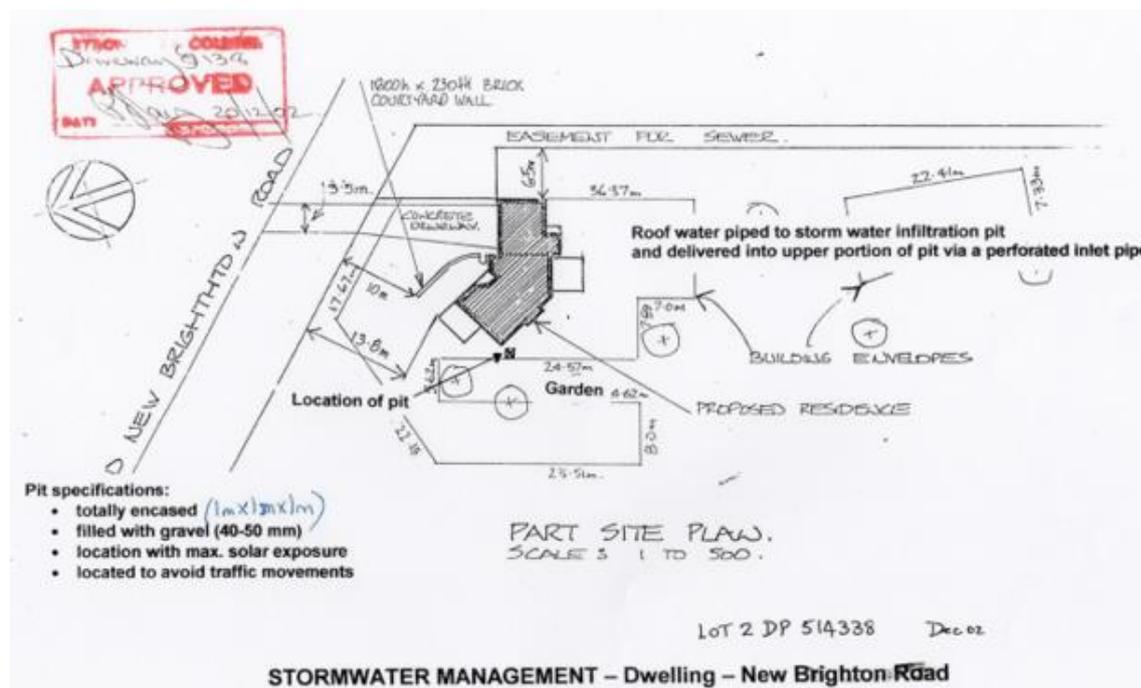


Figure 4: Location of existing stormwater system. (Source: Byron Shire Council approval).