



Part G:

Environmental Management

& Hazards

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G1 Introduction

A range of environmental constraints and opportunities exist and affect human activities and development across the Blayney Shire. Any proposal should demonstrate how the development will address these opportunities and constraints to ensure that:

- a) *The impact on key ecological systems and environmentally sensitive areas is minimised;*
- b) *The development will be protected from natural hazards and human-caused impacts;
and*
- c) *The design responds to the environment and character of the site and surrounds.*

Environmental hazards can include, but are not limited to: flooding and stormwater management, bushfire, contamination and naturally-occurring asbestos, noise and vibration, odour and a need to provide buffers between sensitive and higher impact land uses.

Environmental management can include, but is not limited to: protection and enhancement of significant vegetation and biodiversity, riparian lands and watercourses, drinking water catchments, groundwater systems, and land and soil-related issues.

TO FIND OUT IF YOUR LAND IS AFFECTED BY THESE CLAUSES, please:

- a) Go to the NSW Planning Portal on the internet at www.planningportal.nsw.gov.au;
- b) Click on **FIND A PROPERTY**, and insert the address of the relevant property;
- c) Find the Section entitled **PLANNING LAYERS ASSOCIATED WITH PROPERTY**;
- d) Click on the relevant layer in the following list and it will provide a short description of the layer as well as a map of the layer in the **PLANNING VIEWER**:
 - **FLOOD PLANNING;**
 - **TERRESTRIAL BIODIVERSITY;**
 - **RIPARIAN LANDS AND WATERCOURSES;**
 - **GROUNDWATER VULNERABILITY;**
 - **DRINKING WATER CATCHMENT;**
 - **BUSHFIRE PRONE LANDS.**

Please come to Council's offices if you wish to view these maps or seek written confirmation from Council officers.

G2 Buffers to Sensitive Land Uses

G2.1 Application of this Section

This Section applies to a proposed development in Blayney Local Government Area (LGA) where;

- 1) A **sensitive land use** is proposed within the buffer distances to an existing or likely **higher impact land use** or an industrial zone; or
- 2) A **higher impact land use** is proposed within the buffer distances to an existing or likely future **sensitive land use**,

in accordance with the recommended buffers set out this clause and/or **Clause 6.7 – Development within a designated buffer area** in **BLEP2012** (400m from a Waste Depot or Sewage Treatment Plant).

A '**higher impact land use**' may include, but is not limited to:

- a) Extractive industries and mining;
- b) Most industrial uses except light industry and high technology industry that by definition have no significant impacts;
- c) Commercial uses that may produce significant dust, noise, odour or traffic generation;
- d) Recreation uses that may produce significant dust, noise, odour or traffic generation;
- e) Intensive agricultural uses (taking into account the 'right to farm' – see below);
- f) Other uses that, at the discretion of Council, would be expected to produce significant impacts on a **sensitive land use** within 500m of that use.

'**Buffer**' or '**Buffer Area**' means an area of prescribed width between adjoining land uses or development that is created for the purpose of mitigating the impacts of one or more of those land uses, and in which the carrying out of certain development is restricted.

'**Sensitive land use**' is any land use where there are users that are likely to be significantly and regularly affected by emissions from other higher-impact land uses. It extends beyond residential land uses to include, for example, tourist and visitor accommodation, hospitals, aged care and seniors living, child care facilities, playground and recreation areas, and some public buildings where a reasonable level of amenity (suitable for each use) must be protected.

G2.2 Objectives

- 1) To incorporate appropriate buffers or setbacks between **sensitive land uses** (or zones that may support those **sensitive land uses**) and **higher impact land uses** (or zones that may support those uses) to avoid or mitigate against that impact;

- 2) To promote economic certainty by ensuring that **higher impact land uses** are located so as to allow their ongoing operation and future expansion with minimal risk of constraints due to impacts on neighbouring **sensitive land uses**.

G2.3 Noise & Vibration

- 1) Where any proposed development is likely to:

- a) Generate significant noise and/or vibration that may impact on existing **sensitive land uses** in reasonable proximity to the development site; or
- b) Be significantly impacted by potential noise and/or vibration from an existing (or future expanded) development or infrastructure (including a state/regional road or railway line),

then the applicant may be required to lodge a **Noise (and/or Vibration) Assessment** (prepared by a suitably qualified acoustic consultant) that demonstrates how the proposed development has been located, designed, and/or managed to avoid or mitigate those impacts to/from the proposed development in accordance with the relevant guidelines.

- 2) The design or construction of building(s) or areas that may emit significant noise should consider:
- a) Location, proximity, and buffers to protect **sensitive land uses**;
 - b) Terrain and amplification/direction of noise;
 - c) Background noise levels;
 - d) Enclosure of noisy area(s) and suitable acoustic insulation;
 - e) Avoidance of opening(s) of enclosed noisy area(s) towards **sensitive land uses** that may direct noise to a **sensitive land use**;
 - f) Suitable hours of operation and transport movement, loading/unloading etc.;
 - g) Any other factor that would exacerbate likely noise.
- 3) Any **Noise (and/or Vibration) Assessment** relating to development near an existing state or regional road or railway line should address the requirements of *State Environmental Planning Policy (Infrastructure) 2007* and the *NSW Department of Planning (2008) Development near Rail Corridors and Busy Roads – Interim Guideline*.
- 4) Any **Noise Assessment** involving a noise source set out in the *Protection of the Environment Operations Act 1997* must address the requirements (where relevant) of the *NSW Industrial Noise Policy (2000 – as amended)* (see <http://www.epa.nsw.gov.au/noise/industrial.htm>).
- 5) Any **Noise (and/or Vibration) Assessment** relating to an industrial land use (particularly an existing industrial use) within Zone IN1 General Industrial or Zone IN2 Light Industrial or a business use in Zone B2 Local Centre, B5 Business Development or B6 Enterprise Corridor should consider the economic importance of facilitating industrial and business development in those zones.

Note: *The Protection of the Environment Operations Act 1997 and Regulations provide limitations to emissions from development and the applicant may need to seek a separate approval under this legislation.*

G2.4 Odour & Dust

In addition to general odour and dust requirements, this clause seeks to clarify the application of **Clause 6.7 – Development within a designated buffer area in BLEP2012** that applies to development in proximity to an existing sewage treatment plant (STP) or waste depot.

- 1) Where any proposed development is likely to:
 - a) Generate significant odour that may impact on existing **sensitive land uses** in reasonable proximity to the development site; or
 - b) Be significantly impacted by potential odour from an existing (or future expanded) development or infrastructure (including a state / regional road or railway line); or
 - c) Where any proposed development occurs on land identified as '**Sewage Treatment Plant and Waste Depot Buffer**' on the **Sewage Treatment Plant and Waste Depot Buffer Map** (i.e. within 400m of the boundary of these facilities),
then Council may require the applicant to lodge an **Odour and/or Dust Assessment** (prepared by a suitably qualified consultant in accordance with Council's *Development and Building Guide*) that demonstrates how the proposed development has been located, designed, and/or managed to avoid or mitigate those impacts to/from the proposed development in accordance with the relevant guidelines.
- 2) The **Odour and/or Dust Assessment** should demonstrate how odour and/or dust will be managed on the proposed development site to avoid any adverse impact on the development and/or surrounding land uses (whichever is relevant). This should be prepared by a suitably qualified consultant in accordance with the relevant guidelines.
- 3) Vehicle entry, exits, loading, unloading and internal manoeuvring areas should be sealed or have a surface agreed with Council's engineers to minimise the emission of dust from trafficable surfaces for uses that have higher traffic generation or close proximity to **sensitive land uses**.

G2.5 On-Site Effluent Disposal

- 1) Where an on-site effluent disposal system is proposed to manage sewage, the on-site systems must be suitably sized and able to operate on the lot (taking into account the proposed use and its likely liquid waste / effluent production) without impacting on development on the subject lot, neighbouring lots or surface or ground water systems, and don't require excessive vegetation removal.

On-site sewage management facilities must be either:

Located on land at or above the Flood Planning Level (FPL); or

Sited and designed (demonstrated in a Geotechnical (Effluent) Report) to withstand known or likely flooding conditions (including consideration of structural adequacy, avoidance of inundation and flushing/leaking of effluent into flowing flood waters).

Any on-site sewage systems that disperse only partly treated effluent to the natural environment (including standard septic absorption trench systems) are *generally* not permitted on land below the **Flood Planning Level (FPL)**. See **Part G4 – Flood** for more details.

- 2) Any proposed lots or on-site effluent disposal systems should be located so as to provide appropriate buffers to watercourses and buildings in accordance with:
 - a) The *Environmental Health Protection Guidelines – On-Site Sewage Management for Single Households* (1998 - as amended);
 - b) *Australian Standard 1547 – On-site domestic wastewater management* (as amended); and
- 3) An **Effluent (Geo-technical) Report** must be prepared by a suitably qualified consultant that supports the design and location of any on-site system in accordance with Council's *Development and Building Guide*, *Australian Standard AS1547*, and relevant NSW Government policy.
- 4) On lots with an area less than 2,000m² the nominated effluent disposal areas must allow for:
 - a) Suitable areas for dwellings and outbuildings, access, open space, and buffers to adjoining lots and watercourses; and
 - b) A 'reserve area' at least equivalent in size to the nominated effluent disposal area that is recommended for disposal in the supporting **Geo-technical (Effluent) Report**.

Note: The 'reserve area' is intended to allow a secondary disposal area to be constructed if the primary disposal area fails which is common in some villages.
- 5) Any water for reuse-use must be treated in accordance with the relevant NSW Health Guidelines and any other relevant Australian Standards using certified systems.

G2.6 Buffers to Sensitive Land Uses

Proposed development should consider the recommended buffers between potentially higher impact land uses and **sensitive land uses** set out in the tables below. Where the recommended buffers cannot be met then the applicant must demonstrate/address:

- 1) Why an alternative available site would not be more suitable for the proposed development;
- 2) What mechanisms will be utilised to minimise or mitigate any impacts to/from the proposed development;
- 3) How the proposed development will meet the objectives of this Section and the proposed land use.

LAND USE / SEPARATION (metres) <i>These may be subject to further assessment in accordance with NSW Government Guidelines.</i> <i>Other buffers or setbacks may apply under other legislation or policies for items such as: Utilities; Airports; Rifle ranges; Bushfire protection; and Heritage.</i>	Residential & Urban Dev.	Rural Dwellings	Education Facilities	Rural Tourist Accommodation	Property Boundary
Piggeries, feedlots, poultry sheds & waste storage					
> 500 Pigs/Cattle Feedlot	500	400	1000	400	100
≤ 500 Pigs/Cattle Feedlot/Poultry Farms	300	200	500	200	20
Dairies & Waste Utilisation Area(s)	500	250	250	250	20
Other intensive livestock operations	500	300	500	300	100
Intensive plant agriculture and horticulture (where significant spraying is used or it is sensitive to sprays)	50 if a vegetated buffer of minimum 30m is provided 100 if no vegetated buffer (notification as per <i>Pesticides Act</i>)				N/A
Rural industries (incl. sawmills & grain mills)	1000	500	500	500	50
Abattoirs	1000	800	1000	800	100
Potentially hazardous or offensive industry or hazardous storage establishment	1000	1000	1000	1000	100
Heavy industry (other than hazardous/offensive industry)	800	500	1000	500	N/A
Mining & extractive industries	500 or 1000 if it involves blasting				N/A

LAND USE / SEPARATION (metres) <i>These may be subject to further assessment in accordance with NSW Government Guidelines.</i> <i>Other buffers or setbacks may apply under other legislation or policies for items such as: Utilities; Airports; Rifle ranges; Bushfire protection; and Heritage.</i>	Residential & Urban Dev.	Rural Dwellings	Education Facilities	Rural Tourist Accommodation	Property Boundary
Animal Boarding & Training Establishments	500 to another off-site dwelling and 200 to a property boundary				N/A
Source: <i>The above table is <u>adapted/modified</u> from the NSW Department of Primary Industries publication entitled 'Living and Working in Rural Areas – A handbook for managing land use conflict issues on the NSW North Coast' (www.dpi.nsw.gov.au) and provides <u>guidelines</u> for buffers for some sensitive land uses (top row) from some relevant primary & extractive industries, environmentally sensitive areas, and other land uses (left column) in metres (m).</i>					

G2.7 Buffers & Landscaping

Any buffers or setbacks should incorporate or be capable of incorporating sufficient landscaping / tree plantings (or other mechanism where appropriate) to minimise or mitigate any impacts from adjacent land uses without increasing the bushfire threat to any existing or proposed buildings.

Note: *Blayney Shire Council acknowledges that one method for reducing land use conflict is to incorporate significant landscaping and trees into buffer areas to create a barrier to views, dust, and some other impacts (not including noise). The issues with landscaping include:*

- a) *It is difficult to specify landscaping that will actually provide a buffer for all impacts;*
- b) *Landscaping requires ongoing irrigation and maintenance to achieve the desired outcomes and Council is not well-placed to provide ongoing enforcement;*
- c) *Additional landscaping, in certain circumstances can increase bushfire risk to existing or proposed buildings;*
- d) *Changes in ownership or land use may require different landscaping approaches.*

Where required, landscape plantings will form part of the conditions of consent by Council. However, by providing the required buffers/setbacks it allows for the individual owners to utilise landscaping to minimise or mitigate impacts.

G2.8 Agriculture & Right to Farm

Any **sensitive land uses**/development (or subdivision that supports those **sensitive land uses**) that has a boundary with rural zoned land, should seek to incorporate buffers or setbacks to that rural land to enable the rural land to be used for standard agricultural practices to the fullest agricultural potential of that land (taking into account the recommended buffers set out in the clause entitled '**Buffers to Sensitive Land Uses**' above).

Note: *Blayney Shire Council recognises the importance of agriculture and primary production to the economy of the Shire and its rural community. For this reason, Council supports the 'right to farm' (in accordance with NSW Government Policy at www.dpi.nsw.gov.au) on rural land including existing agricultural practices or potential future increases in intensity of agricultural practices. This means that agricultural activities MAY have priority over **sensitive land uses** as set out in that policy.*

G3 Stormwater & Drainage

G3.1 Application of this Section

This Section applies to:

- a) All proposed development in Blayney Local Government Area (LGA) where **Clause 6.2 Stormwater Management in BLEP2012** applies (residential, business and industrial zones); and
- b) Any other areas where the proposed development would significantly modify hardstand, roof catchment or drainage areas and Council would require a **Soil & Water Management Plan**.

G3.2 Objectives

To ensure that stormwater and drainage systems:

- a) Address the objective of **Clause 6.2 Stormwater Management of BLEP2012**;
- b) Will not significantly alter and/or worsen pre-development stormwater patterns and flow regimes;
- c) Will convey stormwater to receiving waters with minimal damage, danger and nuisance;
- d) Maintain the water quality of receiving waters;
- e) Stabilise landform and control erosion;
- f) Maximise the potential for water infiltration and minimise overland flows;
- g) Protect proposed or likely building areas from erosion and stormwater damage; and
- h) Consider water retention/detention and re-use (where relevant).

G3.3 Stormwater Management

- 1) If a **Soil and Water Management Plan** is required by Council's *Development and Building Guide* then it must demonstrate / address the matters set out below (where relevant).
- 2) For all areas (both urban and rural) development must ensure stormwater management:
 - a) Is in accordance with Council's *Guidelines for Engineering Works (as amended)*;
 - b) Does not result in any concentration of flows to adjoining properties;
 - c) Is designed to optimise the interception, retention and removal of water-borne pollutants and sediment prior to their discharge to receiving waters.

- 3) For urban areas (Zone R1, RU5, B2, B5, B6, IN1 & IN2 and Zone R5 Large Lot Residential attached to towns/villages where lots < 1 ha in area) development must ensure stormwater management:
- a) Is designed to flow to Council's stormwater system, inter-allotment drainage easement, or other legal point of discharge;
 - b) Where there is likely to be significant site coverage by buildings and hardstand areas, that the post-development run-off from the development site:
 - i) will not exceed the run-off from the site during its pre-developed state;
 - ii) Does not significantly alter pre-development stormwater patterns and flow regimes or cause unacceptable environmental damage in existing watercourses or receiving waters;
 - c) For development of larger sites where the downstream hydraulic capacity of one or more components in a drainage system is inadequate for the design flow and/or where economically feasible, Council may require the design to incorporate some or all of the following:
 - i) Onsite stormwater retention and/or detention devices;
 - ii) Water quality treatment devices; and or
 - iii) Water re-use,to manage stormwater on the site and improve water quality outcomes when discharging to the natural environment in accordance with recognised *Water Sensitive Urban Design* principles.

Note: *Inter-allotment drainage easements will be required for all allotments with a cross-fall where any significant portion of the allotment drains through an adjoining allotment, or where the allotment drains away from the street. Permission from any adjoining lots for the proposed easement will be required.*

Note: *Council may condition the requirement to upgrade part or all of the site frontage to the street (at the developer's cost) to include kerb and gutter (appropriate to the location).*

G4 Flooding

Note: *This section will be added at a future date.*

G5 Bushfire

G5.1 Application of this Section

This section applies to all land that is mapped as bushfire prone land within Blayney Local Government Area (LGA) on the **Bushfire Prone Land Map(s)** (as amended or replaced).

To find out if your land is affected by these clauses, please go to the NSW Planning Portal on the internet at www.planningportal.nsw.gov.au, as described in the Introduction to this Part. Please also visit the Rural Fire Service website (www.rfs.nsw.gov.au) for additional resources.

*A bushfire prone area is an area of land that can support a bush fire or is likely to be subject to bush fire attack. Bush fire prone areas are identified on a **Bushfire Prone Lands Map**. The map identifies bush fire hazards and associated buffer zones within a local government area.*

*There may also be instances where land is not identified as bushfire prone on the **Bushfire Prone Land Map** but a bushfire risk is still present so development may need to consider appropriate locations, design and construction to manage bushfire risk.*

G5.2 Objectives

- 1) To meet the statutory requirements for bushfire protection in NSW.
- 2) To prevent the loss of life and property due to bushfire by providing for development compatible with bushfire hazard.
- 3) To ensure risks associated with bush fire are appropriately and effectively managed while having due regard to development potential, on-site amenity and protection of the environment.
- 4) To ensure bush fire risk is managed in connection with the preservation of the ecological values of the site and adjoining lands.

G5.3 Development on Bushfire Prone Land

Where a proposed development is on land identified as bush fire prone on the **Bushfire Prone Land Map**, the design and management of any proposed development on that bushfire prone land must comply with:

- 1) NSW Rural Fire Service (2006) *Planning for Bush Fire Protection* (as amended or replaced); and
- 2) *Australian Standard AS3959 – 2009 Construction of Buildings in Bush Fire Prone Areas* (for any Construction Certificate application). A suitably qualified person must provide a schedule of compliance with the applicable construction standards. This schedule will form part of the approval documentation and the applicant will be required to comply with it during the course of construction.
- 3) Any development application involving the erection of a dwelling house or alterations and additions to an existing dwelling house on bush fire prone land must address the requirements contained in the NSW Rural Fire Service (RFS) publication titled “*Building in Bush Fire Prone Areas Single Dwelling Applicants Kit*” found on the RFS website (www.rfs.nsw.gov.au).

G6 Land Contamination

G6.1 Application of this Section

This section applies to all land within the Blayney Local Government Area (LGA). This Section directly relates to requirements under the *Contaminated Land Management Act 1997* (& regulations) and *State Environmental Planning Policy No. 55 – Remediation of Land* ('SEPP 55') that provides procedures to deal with the assessment of known or potentially contaminated land, the remediation of contaminated land, and development that may contaminate land.

Council has prepared a Contaminated Land Policy (in accordance with the Central West Councils Environment & Waterways Alliance and Contamination Land Policy template) that sets out in detail the legislative and policy requirements for assessing contamination including triggers for a preliminary site investigation and remediation requirements. Appendix A of that Policy contains a list of potentially contaminating land uses that should be considered as part of any preliminary investigation.

G6.2 Objectives

- 1) Enable Council to more adequately identify, record and manage known and potentially contaminated land in accordance with legislative and state policy requirements;
- 2) Consider the historical uses of sites to understand potential risks from potentially contaminating land uses;
- 3) Ensure development sites have a suitable soil/water quality for their intended use and that any proposed development of an identified contaminated site will not result in any unacceptable levels of risk to human health or the environment;
- 4) Remediate contaminated sites to a suitable level for their intended purpose and protection of the natural environment;
- 5) Comply with Council's *Contaminated Land Policy* and any relevant NSW Government guidelines;
- 6) Avoid or minimise the risk of future contamination of sites from proposed development. Where any proposed development and its operation involves significant quantities of chemical or petroleum use or storage or harmful materials or waste products (in any form) on the site, the applicant must demonstrate how the proposed development:
 - a) Will manage and safely contain any chemicals, materials or wastes on the site and/or during their disposal or transport to/from the site in accordance with the relevant regulations;
 - b) Is designed to minimise or mitigate the risk of contamination to land, surface and ground water, or ecological systems both during normal operations and in the event the normal systems fail;

- c) Addresses relevant clauses in **BLEP2012** including (where relevant), but not limited to:
- i. **Clause 6.4 – Groundwater vulnerability;**
 - ii. **Clause 6.5 – Drinking water catchments;**
 - iii. **Clause 6.6 – Riparian land and watercourses.**

G7 Significant Vegetation & Biodiversity

Note: *This section will be added at a future date.*

G8 Drinking Water Catchments & Ground Water Vulnerability

G8.1 Application of this Section

This clause seeks to provide some guidance on when and how Council will require an applicant to address:

- a) **Clause 6.4 – Groundwater vulnerability** in **BLEP2012** and applies to land identified as 'Groundwater vulnerable' on the **Natural Resource – Groundwater Vulnerability Map(s)**; and
- b) **Clause 6.5 – Drinking water catchments** in **BLEP2012** and applies to land identified as 'Drinking water catchment' on the **Drinking Water Catchment Map(s)**.

To find out if your land is affected by these clauses, please go to the NSW Planning Portal on the internet at www.planningportal.nsw.gov.au, as described in the Introduction to this Part.

G8.2 Application Requirements

Note: *It is not intended that low-impact developments (particularly in existing urban areas) are required to prepare a detailed response to these clause(s), except through the provision of an on-site effluent report, erosion & sediment control plan, or other geo-technical report (where relevant). However, larger projects or those with potentially higher impacts to the drinking water supply system must address these clause(s) in greater detail.*

- 1) When a development is proposed on land identified as:
 - a) 'Drinking water catchment' on the **Drinking Water Catchment Map** in **BLEP2012**;
or
 - b) 'Groundwater vulnerable' on the **Natural Resource – Groundwater Vulnerability Map(s)**,

then the applicant is only required to address the relevant clause in **BLEP2012** in detail for the following land uses / development proposals that are permissible in the relevant zone:

- Intensive agriculture;
- Rural industries and other industries with on-site storage or use of hazardous chemicals or significant petro-chemicals;
- Animal boarding and training establishments and veterinary hospitals;
- Larger scale tourist accommodation and eco-tourist facilities requiring on-site sewage management;
- Open cut mining and extractive industries;
- New cemeteries;

- Other developments / land uses that, in Council's discretion, would have potential for on-site storage of significant volumes of hazardous liquids or chemicals or the production of wastes that could contaminate surface or ground water systems that feed into the drinking water supply.

Note: *Operations that store small quantities of fuel, oils or other machinery lubricants for rural or non-commercial use(s) would not be considered as posing a high risk of contamination. However, some higher impact facilities (e.g. service stations, liquid fuel depots and some other depots) will need to be discussed with Council. Compliance with specific regulations (e.g. Protection of the Environment Operations Regulations) for service stations and other liquid fuel depots may provide sufficient protection.*

- 2) Council may require additional studies, reports or plans (prepared by suitably qualified consultant) that demonstrate the proposed development will not have a significant adverse impact on surface or groundwater systems in the drinking water catchment and this may include:
 - a) Geotechnical studies;
 - b) Hydrological and groundwater analysis;
 - c) Processes and systems designed to prevent on-site chemicals or waste materials from adverse impacts on surface or ground-water systems (including back-up systems if standard processes fail);
 - d) Stormwater and drainage plans to direct surface water away from development;
 - e) Any other reports required to assess the risk and determine appropriate management strategies.

G9 Land & Soils

G9.1 Application of this Section

This Section applies wherever site investigations or state or local government mapping indicates there may be geological, soil classification/types or salinity that may affect the proposed development or where the proposed development may impact on the natural environment.

Issues that may affect parts of Blayney Shire include, but are not limited to: karst (limestone formations and caves); naturally-occurring asbestos; salt-affected lands or salinity; steep lands and lands with (potential for) significant erosion; rocky outcrops; and poorer quality or depth soils that may limit agricultural uses.

Any NSW Government publicly-accessible mapping and/or known affected areas through site analysis and previous reporting will be used to determine the presence of these issues.

G9.2 Objectives

- 1) Encourage proposed development to be appropriately sited and/or designed to address site constraints from geological or soil related issues;
- 2) Ensure that the natural environment is suitably protected from inappropriate development locations and/or construction methods that impact regionally significant geological formations (e.g. karst/limestone);
- 3) Ensure that the quality of stormwater run-off from development of sites with a geological or soil-related issue does not impact on the natural environment and receiving waters in terms of soil erosion, sedimentation, water and groundwater pollution, and other impacts;
- 4) To maximise the amount of existing significant vegetation retained on a site during construction and operation of the development to minimise soil erosion and sedimentation of watercourses.

G9.3 Naturally Occurring Asbestos

Asbestos is a naturally occurring mineral. This section deals with naturally-occurring asbestos (NOA) found in certain geological deposits (as opposed to asbestos utilised in industrial and building products). It is important to acknowledge that this mapping is based both on sites where NOA is known to occur and areas with potential for NOA based on known geology at depths of less than 10m below the natural surface.

The potential presence of naturally-occurring asbestos ('NOA') has been mapped by the NSW Government across NSW and broken down into broad areas of low, medium or high potential regions. Go to the NSW EPA website at <http://www.epa.nsw.gov.au/clm/natural-asbestos.htm> and click on the link for 'Naturally-occurring asbestos in NSW' maps

For more information please see the website for the:

- a) NSW Environment Protection Authority (EPA) website above, including the following Fact Sheets:
 - Factsheet 1 – Recreation in areas of naturally occurring asbestos;
 - Factsheet 2 – Residing in areas of naturally occurring asbestos;
 - Factsheet 3 – Farming in areas of naturally occurring asbestos.
 - b) Local Government NSW - relating to the Model Asbestos Policy (2015) as amended (<https://www.lgnsw.org.au/policy/asbestos-model-policy>).
- 1) If your land is identified on a NSW Government map as having low, medium, or high potential for naturally-occurring asbestos (NOA) then Council may require that a suitably qualified geo-technical consultant conducts a site visit and sampling to confirm whether there is (likely to be) any NOA on or near the area where development works are proposed. This must review whether the proposed development will result in any substantial earthworks or disturbance of soil or rock in the affected areas which must be shown on a **Site Plan, Earthworks Plan, or a Soil and Water Management Plan**.
 - 2) Chapter 8 of the *Work Health and Safety Regulations 2017* (as amended) addresses Asbestos. If NOA is identified, and it is likely to be affected by the proposed works, then Clause 432 of that Regulation requires that a site-specific **Asbestos Management Plan** is prepared in accordance with the regulations and the *Model Asbestos Policy for NSW Councils (2015)* (as amended).

G9.4 Erosion & Sedimentation

Erosion of land through poor land management and development practices can result in significant sedimentation and water quality issues in watercourses and drainage corridors.

- 1) Council will assess the relative risk of certain developments causing erosion and sedimentation in accordance with the requirements of the 'Blue Book' (*Managing Urban Stormwater: Soils and Construction*) by Landcom, Fourth Edition (2004) (as amended) including, but not limited to: assessment of site constraints and opportunities; management of soils/earthworks; vegetation retention and enhancement; management of water; sediment and waste control; and site access, stabilisation and maintenance.
- 2) Council may place conditions of consent on development to comply with the requirements of the 'Blue Book' and Council's *Development and Building Guide* in accordance with the risk of erosion and/or sediment leaving the site in the following order of risk (low to high):
 - a) Implement sediment & erosion control measures during construction;
 - b) Lodge with Council (for approval) an **Erosion & Sediment Control Plan**;
 - c) Lodge with Council (for approval) a more detailed **Soil & Water Management Plan**.

G9.5 Other Geological or Soil-Related Issues

In addition to the requirements for Erosion & Sedimentation above, where there is evidence of any geological or soil-related issue(s) that may impact on the suitability of a site for development, its proximity to adjacent development, and/or the method of construction then:

- 1) The **Statement of Environmental Effects** and any relevant plan(s) must give consideration to the impacts of the geological or soil related issue and document how the proposed development will address those issues and minimise or mitigate any risk;
- 2) The extent of any impact(s) on the geology or soil should be shown clearly on any **Site (Analysis) Plan, Earthworks Plan, Soil and Water Management Plan** and/or **Engineering/Structural Plan(s)**.
- 3) Council may require a suitably qualified engineer to:
 - a) Provide a **Geo-Technical Report** that analyses the geology, soils and possibly the hydrology (water) of the site to determine the risk(s) and how the proposed development should respond; and/or
 - b) Provide **Engineering / Structural Plan(s)** to ensure appropriate structure and stability of development.
- 4) Council may require a **Soil & Water Management Plan** and/or **Erosion & Sediment Control Plan** to manage water, salinity and soils/sediment on-site and demonstrate no impacts on adjacent properties or watercourses / drainage channels in accordance with **Part G9.4 Sediment & Erosion Control**.