

14 EARTHWORKS

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14 EARTHWORKS

Notes:

1. The objectives, policies and rules in this chapter apply to all activities across the District except network utilities. The earthworks provisions in Chapter 22 Network Utilities apply to all network utilities.
2. It is advised that for significant earthworks that any compaction and fill is documented at the time it is carried out, in order to reduce the potential for future issues under the Building Act or the National Environmental Standard for Assessing and Managing Contaminants on Soil to Protect Human Health.
3. Please be aware when undertaking earthworks that Section 55 of the Cadastral Survey Act 2002 states it is illegal to disturb or remove any type of survey mark.

Earthworks are a fundamental part of the development process. The act of earthworks can include the modification of land surfaces by blading, contouring, ripping, moving, removing, placing or replacing soil or earth, or by excavation, or by cutting or filling operations, including the importation of fill.

There are many reasons why people carry out earthworks. In most instances, earthworks are generally always required for the construction of buildings or other structures. Smaller scale earthworks may pass without notice, where as some larger or poorly thought through works can create a nuisance or create a significant hazard.

Conventional subdivision development can require the removal of topographical features for the development of level sites and the development of infrastructure, often modifying the natural flows of water through or from a site or sites. This can involve a large surface area and has the potential to create significant adverse effects.

More recent approaches to earthworks and subdivision development have been lower impact and choose to work with the contours of the land rather than altering it to fit for development.

Whanganui has a mix of soils and topography. This means there is a range of complex issues around stability, drainage, property and nuisance factors. Not all soils behave the same way and can require different management.

Poorly managed earthworks can result in noise effects on adjoining properties, along with the deposition of dust. However, while these create a nuisance, works that deposit silt into infrastructure, damage culturally significant items or areas, create erosion or create instability can have

disastrous consequences. Therefore, key measures to manage earthworks are prudent.

This section must also be read in conjunction with the Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011. The National Environmental Standard only applies to the actual or potential effects of contaminants in soil on human health. Additional resource consents may be required by that standard, or by Manawatu-Whanganui Regional Council.

A copy of the Standard can be found on the website for the Ministry for the Environment.

14.1 ISSUES

14.1.1 Poorly Managed Earthworks

Poorly managed earthworks can create a range of adverse effects on amenity values, the physical environment, nationally and regionally significant infrastructure and cultural values.

14.2 OBJECTIVES

14.2.1 Quality Earthworks Development

Earthworks and land modification in Whanganui that:

- a. Maintains or enhances:
 - i. Amenity values.
 - ii. Landforms and natural processes.
 - iii. The efficiency and effectiveness of infrastructure.
 - iv. The safety of people and property.
 - v. The stability of soils.
 - vi. The structural stability of infrastructure and the ability for that infrastructure to safely operate and be maintained; and
- b. Has appropriate regard to cultural heritage sites and values.

14.3 POLICIES

14.3.1 Low Impact Earthworks and Land Modification

Promote low impact earthworks and land modification that results in minimal modification to landforms and overland flow paths.

14.3.2 Effects of Earthworks

Avoid earthworks and land modification that result in damage to property, network utilities or significant nuisance effects.

14.3.3 Maori Values and Earthworks

To mitigate any potential effects on cultural values and tangata whenua where large scale earthworks are proposed, including by:

- i. Incorporating tangata whenua cultural values and practices into earthworks and land modification methods,
- ii. Requiring cultural and/or archaeological assessments, enabling site access and appropriate site work observation for tangata whenua.

14.4 RULES FOR EARTHWORKS

Notes:

1. Certain activities involving disturbance to land will also require regional council consent. Applicants are encouraged to consult the Manawatu-Whanganui Regional Council to identify any regional consent requirements.
2. Heritage New Zealand should be consulted regarding any activity that has the potential to modify or destroy an archaeological site in relation to the possible need for an archaeological authority under the Heritage New Zealand Pouhere Taonga Act 2014.
3. Quarrying is excluded from the provisions of this section.
4. Works in close proximity to any electricity line or support structure can be dangerous. The Electrical Code of Practice for Electrical Safe Distances 34: 2001 may apply and should be referred to. This Code is enforced by the Ministry of Business, Innovation and Employment, and compliance is mandatory.

Rules regulating earthworks in close proximity to the National Grid in the respective zone chapters apply to all activities in addition to these requirements.

14.4.1 Permitted Activities

The following are permitted activities:

- a. Earthworks that meet the Performance Standards at Section 14.5.
- b. Earthworks for the replacement and/or removal of a fuel storage system as defined by the Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011. The performance standards for earthworks do not apply to these activities.

14.4.2 Restricted Discretionary Activities

The following are restricted discretionary activities.

- a. Earthworks that do not comply with one or more performance standards at Section 14.5.

Council restricts its discretion to

The effect of the particular non-compliance on the environment, including the cumulative or combined effect of non-compliance. Note: All discharges will need to meet the requirements of Wanganui- Manawatu Regional Council, including any relevant conditions of any applicable consent.

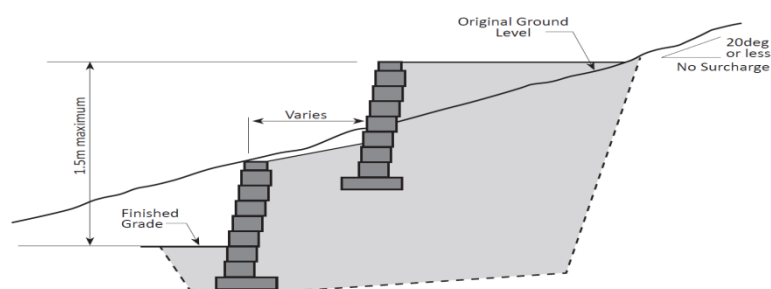
14.5 PERFORMANCE STANDARDS FOR EARTHWORKS

14.5.1 Scale of Earthworks

Earthworks in the Residential, Airport Enterprise and Neighbourhood Commercial zones shall not exceed the following:

- a. Earthworks up to and including 50% of the area of any allotment up to a maximum area of 500m² of land disturbance. Where there is more than one allotment are subject to works as part of a development project, the area of works shall be calculated cumulatively across those allotments affected.
- b. The erection of retaining walls shall not either singularly or cumulatively, exceed 1.5 metres in height. Refer to Diagram 2

Diagram 2



Note: This rule excludes the following:

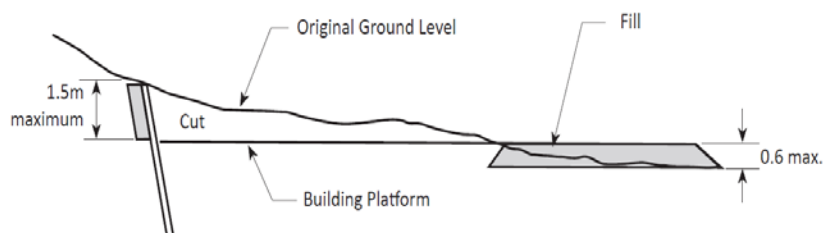
1. Earthworks associated with forestry or rural activities including tilling, harvesting, planting, ploughing, regrassing, or similar activity in the rural zones.
2. Sheetpiles
3. Retaining walls for which a valid Building Consent exists.

14.5.2 General Earthworks Standards

The following standards apply to earthworks in all zones except that provision 1(a) to 1(e) shall not apply to the Airport Enterprise Zone and 1(a) to 1(f) shall not apply to the rural zones:

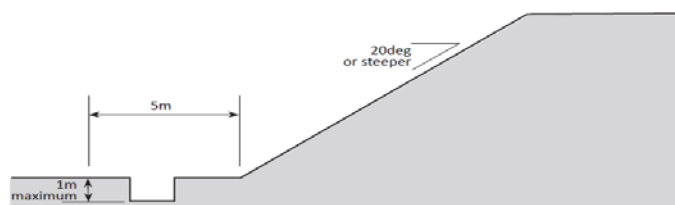
- a. Cuts shall not exceed 1.5 metres in height and fills below building platforms shall not exceed 0.6 metres in depth measured vertically excluding pools and tanks that are buried. Refer to Diagram 3.

Diagram 3



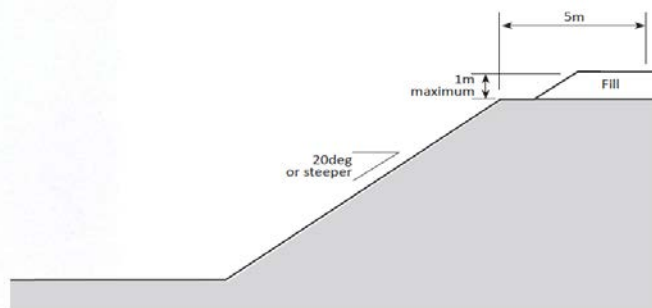
- b. Cuts or fills shall not occur on slopes exceeding 20°.
- c. Cuts of greater 1.0 metre in height measured vertically shall not occur within 5 metres if a toe of a slope exceeding 20°. Refer Diagram 4.

Diagram 4



- d. Fills greater than 1.0 metre in height measured vertically shall not occur within 5 metres of the top of a slope exceeding 20°. Refer Diagram 5.

Diagram 5



- e. The toe of a fill or cut slope shall be at least 3 times the depth/height of the slope from an upslope boundary and at least 1.5 times the depth/height of the slope from a downslope boundary. Refer Diagram 6.

Diagram 6



- f. Earthworks shall not:
 - i. Alter overland flow paths, including swales and low impact stormwater devices, in a manner that causes damage to property through inundation, erosion, or subsidence.
 - ii. Cause excessive vibration on surrounding sites.
 - iii. Create, encourage, or exacerbate erosion or instability.

Note: The requirements of the Land Drainage Act 1908 still apply and should be referred to by anyone moving significant amounts of earth or altering overland flows.

- g. Measures shall be implemented to ensure that any discharge of dust beyond the boundary of the site is avoided or limited to such that it does not cause nuisance.
- h. Measures shall be implemented to ensure that infrastructure is appropriately protected from infiltration of sediments and roads are kept clean of mud and other such material.