

25 EARTHWORKS

25.1

Purpose

Earthworks are often a necessary component of the use and development of rural and urban land, and are often an integral part of the installation and maintenance of infrastructure. Within urban areas, some modification of the landscape is inevitable in order to provide for development, including creating functional, safe and stable building sites, as well as roads and access ways with appropriate gradients.

Within both rural and urban locations earthworks have the potential for adverse effects on landscape and visual amenity values and require management to ensure the District’s Outstanding Natural Features, Landscapes, amenity values, waterbodies and their margins are protected from inappropriate development.

Earthworks associated with construction, subdivision, land use and development can cause erosion of land and sedimentation of stormwater. Unless appropriately managed this could affect stormwater networks, or result in sediment entering wetlands, rivers and lakes. Earthworks can also create temporary nuisance effects from dust, noise and vibration that require management.

The volume limits in the Earthworks Chapter do not apply to subdivision proposals with a Controlled or Restricted Discretionary activity status because earthworks and the adverse effects associated with these activities are contemplated and managed by the policies and matters of discretion in the Earthworks Chapter and Subdivision Chapter 27. All other rules in the Earthworks Chapter apply to applications for subdivision consent to manage potential adverse effects from for instance, earthworks near water bodies or cut and fill adjacent to neighbouring properties.

Earthworks in this plan encompass the defined activities of earthworks but exclude cultivation, mineral prospecting, exploration and mining activity.

Pursuant to Section 86B (3) of the Act the following rules have immediate legal effect:

- **Rule 25.5.11;**
- **Rule 25.5.12;**
- **Rule 25.5.15 where related to historic heritage;**
- **Rule 25.5.20; and**
- **Rule 25.5.21.**

25.2

Objectives and Policies

25.2.1 Objective – Earthworks are undertaken in a manner that minimises adverse effects on the environment and maintains landscape and visual amenity values.

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| Policies | <p>25.2.1.1 Ensure earthworks minimises erosion, land instability, and sediment generation and off-site discharge during construction activities associated with subdivision and development.</p> <p>25.2.1.2 Protect the following valued resources including those that are identified in the District Plan from the inappropriate adverse effects of earthworks:</p> <ol style="list-style-type: none"> a. Outstanding Natural Features and Landscapes; b. the amenity values of Rural Landscapes and other identified amenity landscapes; |
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- c. significant Natural Areas and the margins of lakes, rivers and wetlands;
- d. the exposure of aquifers, in particular the Wakatipu Basin, Hāwea Basin, Wanaka Basin and Cardrona alluvial ribbon aquifers;

Advice note: These aquifers are identified in the Otago Regional Plan: Water for Otago 2004.

- e. the relationship of Māori and their culture and traditions with their ancestral lands, water, sites, wāhi tapu, and other taonga;
- f. heritage sites, precincts and landscape overlays; and
- g. public access to and along lakes and rivers.

25.2.1.3 Avoid, where practicable, or remedy or mitigate adverse visual effects of earthworks on visually prominent slopes, natural landforms and ridgelines.

25.2.1.4 Manage the scale and extent of earthworks to maintain the amenity values and quality of rural and urban areas.

25.2.1.5 Design earthworks to recognise the constraints and opportunities of the site and environment.

25.2.2 Objective – The social, cultural and economic well being of people and communities benefit from earthworks while being protected from adverse effects.

- Policies
- 25.2.2.1** Subject to Objective 25.2.1, enable earthworks that are necessary to provide for people and communities wellbeing, having particular regard to the importance of:
 - a. Nationally and Regionally Significant Infrastructure;
 - b. tourism infrastructure including the continued operation, and provision for future sensitive development of recreation and tourism activities within the Ski Area Sub Zones and the vehicle testing facility within the Wairau Ski Area Sub Zone;
 - c. minimising the risk of natural hazards;
 - d. enhancing the operational efficiency of farming including maintenance and improvement of track access and fencing; and
 - e. the use and enjoyment of land for recreation, including public walkways and trails.
 - 25.2.2.2** Ensure that earthworks are designed and undertaken in a manner that does not adversely affect infrastructure, buildings and the stability of adjoining sites.
 - 25.2.2.3** Encourage limiting the area and volume of earthworks being undertaken on a site at any one time to minimise adverse effects on water bodies and nuisance effects of adverse construction noise, vibration, odour, dust and traffic effects.
 - 25.2.2.4** Undertake processes to avoid adverse effects on cultural heritage, including wāhi tapu, taonga, and archaeological sites, or where these cannot be avoided, effects are remedied or mitigated.

- 25.2.2.5** Manage the potential adverse effects arising from exposing or disturbing accidentally discovered material by following the Accidental Discovery Protocol in Schedule 25.10.
- 25.2.2.6** Ensure that earthworks that generate traffic movements maintain the safety of roads and accesses, and do not degrade the amenity and quality of surrounding land.
- 25.2.2.7** Ensure that earthworks minimises natural hazard risk to people, communities and property, in particular earthworks undertaken to facilitate land development or natural hazard mitigation.

25.3

Other Provisions and Rules

25.3.1 District Wide

Attention is drawn to the following District Wide chapters.

1 Introduction	2 Definitions	3 Strategic Direction
4 Urban Development	5 Tangata Whenua	6 Landscapes
26 Historic Heritage	27 Subdivision	28 Natural Hazards
29 Transport	30 Energy and Utilities	31 Signs
32 Protected Trees	33 Indigenous Vegetation and Biodiversity	34 Wilding Exotic Trees
35 Temporary Activities and Relocated Buildings	36 Noise	37 Designations
Planning Maps		

25.3.2 Advice Notes - Regional Council Provisions

- 25.3.2.1** Some land disturbance activities including those that involve the diversion of water or discharge of stormwater with sediment, and modification to water bodies including wetlands are subject to the Otago Regional Council Regional Plan: Water for Otago 2004.
- 25.3.2.2** Cleanfill and Landfill activities are also subject to the Otago Regional Council Regional Plan: Waste for Otago 1997.

25.3.3 Advice Notes

- 25.3.3.1** Volume shall mean the sum of all earth that is moved within a site and includes the total of any combined cut and fill. Refer to Interpretive Diagrams 25.1 to 25.3 located within Schedule 25.9.
- 25.3.3.2** The rules for any zone include any subzone or overlay applicable to that zone, except where otherwise specified.

- 25.3.3.3** Refer to Chapter 33 Indigenous Vegetation and Biodiversity for land disturbance activities within Significant Natural Areas. No provisions of this chapter prevail over those of Chapter 33 Indigenous Vegetation and Biodiversity.
- 25.3.3.4** Earthworks are also managed as part of development activities and modifications to Historic Heritage items and settings identified on the Planning Maps and in Chapter 26 Historic Heritage. No provisions of this chapter prevail over those of Chapter 26 Historic Heritage.
- 25.3.3.5** Those who wish to undertake earthworks in the vicinity of Queenstown Airport or Wanaka Airport are referred to Figures 1 to 4 of the Planning Maps which identify the Airport Approach and Protection Measures, and Airport Protection Inner Horizontal and Conical Surfaces for Queenstown Airport and Wanaka Airport. Land use restrictions within these areas are further described in Chapter 37: Designations, Parts D.3 and E.2. Persons who wish to undertake earthworks are advised to consult with the relevant requiring authority and the Civil Aviation Authority.
- 25.3.3.6** Part I of the Heritage New Zealand Pouhere Taonga Act 2014 states that no work may be undertaken on an archaeological site (whether recorded or unrecorded) until an archaeological authority to destroy, damage or modify a site has been granted by Heritage New Zealand Pouhere Taonga in accordance with that Act.
- 25.3.3.7** Attention is drawn to the following iwi management plans that should be taken into account of and given regard to when assessing resource consent applications:
- a. Te Tangi a Taurira: The Cry of the People, the Ngāi Tahu ki Murihiku Iwi Management Plan for Natural Resources 2008.
 - b. Kāi Tahu ki Otago Natural Resource Management Plans 1995 and 2005.
- 25.3.3.8** Resource consent may be required for earthworks under the Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011. In particular for earthworks associated with the removal or replacement of fuel storage tanks, earthworks associated with sampling or disturbance of land identified in the Listed Land Use Register held by the Otago Regional Council. In these instances, the NES applies instead of the District Plan provisions.
- 25.3.3.9** Resource consent may be required for earthworks under the Resource Management (National Environmental Standards for Telecommunication Facilities) Regulations 2016. In particular for earthworks associated with antennas and cabinets. Refer to Chapter 30 Energy and Utilities for clarification as to whether the NES applies instead of the District Plan provisions.
- 25.3.3.10** Resource consent may be required for earthworks under the Resource Management (National Environmental Standards for Electricity Transmission Activities) regulations 2009. Refer to Chapter 30 Energy and Utilities for clarification as to whether the NES applies instead of the District Plan provisions.
- 25.3.3.11** The following activities are managed in Chapter 30 Energy and Utilities:
- a. Earthworks, buildings, structures and National Grid sensitive activities undertaken within the National Grid Yard;
 - b. Earthworks for the placement of underground electricity cables or lines.

25.3.3.12 The rules relating to construction noise and vibration are managed in Chapter 36: Noise. Consideration of construction noise and vibration associated with earthworks are included as matters of discretion in Part 25.7 and assessment matters in Part 25.8 as a component of the management of the potential adverse effects of earthworks.

25.3.4 General Rules

25.3.4.1 Earthworks subject to resource consent applications for Controlled or Restricted Discretionary activity subdivisions pursuant to section 11 of the Act are exempt from the following Rules:

- a. Table 25.2 volume;
- b. Rule 25.5.16 cut; and
- c. Rule 25.5.17 fill.

Applications for subdivision involving any earthworks shall be considered against the matters of discretion for earthworks in Part 25.7 and assessment matters in Part 25.8.

All other rules in the Earthworks Chapter apply to applications for subdivision consent.

25.3.4.2 Earthworks for Ski Area Activities within the Ski Area Sub Zones and vehicle testing facilities within the Wairau Ski Area Sub Zone are exempt from the earthworks rules, with the exception of the following rules that apply:

- a. Rules 25.5.12 to 25.5.14 that control erosion and sediment, deposition of material on Roads and dust;
- b. Rule 25.5.20 setbacks from waterbodies; and
- c. Rule 21.5.21 exposing groundwater.

25.3.4.3 The maximum volume and area of earthworks shall be calculated per site, within one consecutive 12 month period.

25.3.4.4 Earthworks within the Rural Zone, Gibbston Character Zone and Rural Lifestyle Zone to facilitate the construction of a building and landscaping authorised by resource consent within an approved building platform are exempt from the following rules:

- a. Table 25.2 volume standards;
- b. Rule 25.5.16 cut standards; and
- c. Rule 25.5.17 fill standards.

25.3.4.5 Earthworks for the following shall be exempt from the rules in Tables 25.1 to 25.3:

- a. Erosion and sediment control except where subject to Rule 25.5.20 setback from waterbodies.
- b. The digging of holes for offal pits.
- c. Fence posts.
- d. Drilling bores.

- e. Mining Activity, Mineral Exploration or Mineral Prospecting.
- f. Planting riparian vegetation.
- g. Internments within legally established burial grounds.
- h. Maintenance of existing and in service vehicle accesses and tracks, excludes their expansion.
- i. Deposition of spoil from drain clearance work within the site the drain crosses.
- j. Test pits or boreholes necessary as part of a geotechnical assessment or contaminated land assessment where the ground is reinstated to existing levels within 48 hours.
- k. Firebreaks not exceeding 10 metres width.
- l. Cultivation and cropping.
- m. Fencing in the Rural Zone, Wakatipu Basin Rural Amenity Zone (excluding the Precinct), Rural Lifestyle Zone and Gibbston Character Zone where any cut or fill does not exceed 1 metre in height or any land disturbance does not exceed 1 metre in width.
- n. Earthworks where the following National Environmental Standards have regulations that prevail over the District Plan:
 - i. Resource Management (National Environmental Standards for Electricity Transmission Activities) Regulations 2009.
 - ii. Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011.
 - iii. Resource Management (National Environmental Standards for Telecommunication Facilities) Regulations 2016.

25.4 Rules - Activities

Table 25.1	Earthworks Activities	Activity Status
25.4.1	Earthworks that comply with all of the activities and standards in Tables 25.1 to 25.3.	P
25.4.2	Earthworks that do not comply with the volume of earthworks standards in Table 25.2. Discretion is restricted to the matters set out in Part 25.7.	RD
25.4.3	Earthworks for the construction or operation of a Cleanfill.	D
25.4.4	Earthworks for the construction or operation of a Landfill.	D
25.4.5	Earthworks that modify, damage or destroy a wāhi tapu, wāhi taonga or archaeological site whether identified on the Planning Maps or not.	D
25.4.6	Earthworks within a Statutory Acknowledgment Area, Tōpuni or Nohoanga identified on Planning Map 40.	D

25.5

Rules - Standards

Table 25.2	Maximum Volume	Maximum Total Value
25.5.1	Arrowtown Residential Historic Management Zone Arrowtown Town Centre Zone Open Space and Recreation Zones	100m ³
25.5.2	Heritage Landscape Overlay Area Heritage Precinct Outstanding Natural Feature	10m ³
25.5.3	Low Density Residential Zone Medium Density Residential Zone High Density Residential Zone Waterfall Park Zone Millbrook Resort Zone	300m ³
25.5.4	Large Lot Residential Zone Rural Residential Zone Rural Lifestyle Zone Wakatipu Basin Rural Amenity Zone and Precinct	400m ³
25.5.5	Queenstown Town Centre Zone Wanaka Town Centre Zone Local Shopping Centre Zone Business Mixed Use Zone Queenstown Airport Mixed Use Zone	500m ³
25.5.6	Rural Zone Gibbston Character Zone	1000m ³
25.5.7	a. Roads b. Roads located within an Outstanding Natural Feature identified on the Planning Maps	(a) No limit (b) 10m ³

Table 25.2	Maximum Volume	Maximum Total Value
	Jacks Point Zone	
25.5.8	Residential Activity Areas Village Village Homestead Bay Open Space Horticulture Open Space Residential Open Space Foreshore Farm Buildings and Craft Activity Area Boating Facilities Area	500m ³
25.5.9	Open Space Landscape Open Space Amenity Farm Preserve 1 and 2 Homesite	1000m ³
25.5.10	Open Space Golf Education Education Innovation Campus Lodge	No maximum

Table 25.3	Standards	Non-Compliance
	Nuisance effects, erosion, sediment generation and run-off	
25.5.11	Earthworks shall not exceed the following area: a. 2,500m ² where the slope is 10° or greater. b. 10,000m ² where the slope is less than 10°. Discretion is restricted to the matters set out in Part 25.7.	RD
25.5.12	Earthworks must be undertaken in a way that prevents sediment entering water bodies, stormwater networks or going across the boundary of the site.	NC
25.5.13	No material being transported from one site to another shall be deposited on any Road.	NC
25.5.14	Any person carrying out earthworks shall implement dust control measures to minimise nuisance effects of dust beyond the boundary of the site.	NC

Table 25.3	Standards	Non-Compliance
25.5.15	<p>Earthworks that discovers any of the following:</p> <ol style="list-style-type: none"> kōiwi tangata (human skeletal remains), wāhi taoka (resources of importance), wāhi tapu (places or features of special significance) or other Māori artefact material, or any feature or archaeological material that predates 1900, or evidence of contaminated land (such as discolouration, vapours, landfill material, significant odours), <p>that is not provided for by the Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011, any resource consent or other statutory authority must comply with the standards and procedures in Schedule 25.10 'Accidental Discovery Protocol'.</p> <p>Discretion is restricted to the matters set out in Part 25.7.</p>	RD
	Height of cut and fill and slope	
25.5.16	<p>The maximum depth of any cut shall not exceed 2.4 metres.</p> <ol style="list-style-type: none"> This rule shall not apply to roads. <p>Discretion is restricted to the matters set out in Part 25.7.</p>	RD
25.5.17	<p>The maximum height of any fill shall not exceed 2 metres.</p> <ol style="list-style-type: none"> This rule shall not apply to roads. <p>Discretion is restricted to the matters set out in Part 25.7.</p>	RD
25.5.18	<p>Earthworks for farm tracks and access ways in the following Zones and Activity Areas shall comply with rules (a) to (c):</p> <ul style="list-style-type: none"> • Rural Zone • Wakatipu Basin Rural Amenity Zone • Gibbston Character Zone • Jacks Point Zone Activity Areas: <ul style="list-style-type: none"> - Open Space Landscape - Open Space Golf - Open Space Amenity - Homesite - Education - Lodge <ol style="list-style-type: none"> No farm track or access way shall have an upslope cut or batter greater than 1 metre in height. All cuts and batters shall not be greater than 65 degrees. The maximum height of any fill shall not exceed 2 metres. <p>Discretion is restricted to the matters set out in Part 25.7.</p>	RD

Table 25.3	Standards	Non-Compliance
	Setbacks from boundaries	
25.5.19	<p>Earthworks greater than 0.3 metres in height or depth shall be set back from the site boundary the following minimum distances:</p> <p>a. Earthworks not supported by retaining walls:</p> <ul style="list-style-type: none"> i. a distance at least equal to the maximum height of the fill, as measured from the toe of the fill; or ii. 300mm plus a distance at least equal to 1.5 times the maximum depth of the cut, as measured from the crest of the cut. <p>Refer to Interpretive Diagrams 25.4 and 25.5 located within Schedule 25.9.</p> <p>b. Earthworks supported by retaining walls:</p> <ul style="list-style-type: none"> i. Cut or fill supported by a retaining wall must be setback a distance at least equal to the height of the retaining wall; except ii. Retaining walls that have been granted building consent are exempt from this rule (25.5.19(b) i). <p>Refer to Interpretive Diagrams 25.6 and 25.7 located within Schedule 25.9.</p> <p>Discretion is restricted to the matters set out in Part 25.7.</p>	RD
	Water bodies	
25.5.20	<p>Earthworks shall be setback a minimum distance of 10 metres from the bed of any water body:</p> <p>This rule shall not apply to any artificial watercourse, lake or wetland that does not flow to a lake or river, and includes Lake Tewa within the Jacks Point Zone.</p> <p>Advice Note: Water body has the same meaning as in the RMA, and also includes any drain or water race that goes to a lake or river.</p> <p>Discretion is restricted to the matters set out in Part 25.7.</p>	RD
25.5.21	<p>Earthworks shall not expose any groundwater, or cause artificial drainage of any groundwater aquifer.</p> <p>Discretion is restricted to the matters set out in Part 25.7.</p>	RD
	Cleanfill	
25.5.22	<p>Earthworks where more than 300m³ of Cleanfill is transported by road to or from the area subject to Earthworks.</p> <p>Discretion is restricted to the matters set out in Part 25.7.</p>	RD

25.6

Non-Notification of Applications

All applications for resource consent for the following matters shall not require the written consent of other persons and shall not be notified or limited-notified:

- 25.6.1** Rule 25.5.11 for restricted discretionary activities that exceed the area (m²) standard.

25.7

Matters of Discretion

- 25.7.1** For all restricted discretionary activities discretion shall be restricted to the following matters. These matters are also applicable to any discretionary or non-complying activity.
- a. Soil erosion, generation and run-off of sediment.
 - b. Landscape and visual amenity.
 - c. Effects on infrastructure, adjacent sites and public roads.
 - d. Land stability.
 - e. Effects on water bodies, ecosystem services and indigenous biodiversity.
 - f. Cultural and archaeological sites.
 - g. Nuisance effects.
 - h. Natural Hazards.
 - i. Functional aspects and positive effects.

25.8

Assessment Matters

- 25.8.1** **In considering whether or not to grant consent or impose conditions on a resource consent, regard shall be had, but not be limited by the following assessment matters which are listed in the order of the matters of discretion.**
- 25.8.2** **Soil erosion and generation of sediments**
- a. The extent to which the proposal achieves effective erosion and sediment management.
 - b. Whether earthworks will be completed within a short period, reducing the risk of actual and potential adverse effects.
 - c. Whether the extent or impacts of adverse effects from the land disturbance can be mitigated by managing the season or staging of when such works occur.

- d. Where applicable due to matters associated with the scale, area, duration of the works or the sensitivity of receiving environment. Whether the proposal is supported with erosion and sediment management design by a suitably qualified person. In particular where resource consent is required for non-compliance with Rule 25.5.11.

25.8.3 Landscape and visual amenity

- a. Whether the design of the earthworks is sympathetic to natural topography.
- b. Whether any rehabilitation is proposed and to what extent rehabilitation, revegetation or future buildings would mitigate adverse effects, including any re-vegetation or landscaping.
- c. The duration of earthworks and any timeframes proposed for remedial works and revegetation.
- d. Within Outstanding Natural Features and Landscapes, the Rural Landscape and other visual amenity landscapes, whether and to what extent earthworks avoid, remedy or mitigate adverse effects or improve landscape quality and character, taking into account:
 - (i) physical attributes including geological, topographical features, waterbodies and formative processes of the landscape;
 - (ii) visual attributes including legibility, existing land management patterns, vegetation patterns, ridgelines or visually prominent areas; and
 - (iii) cultural attributes including Tangata whenua values, historic and heritage associations.
- e. The sensitivity of the landscape to absorb change, and whether the earthworks will change the character or quality of the landscape.
- f. The potential for cumulative effects on the natural form of the landscape.
- g. Whether the design or location of any new tracks or roads can be modified in order to decrease the effects on the stability, visual quality and amenity values of the landscape.
- h. The extent earthworks will affect visual amenity values including public or private views and whether the land disturbance will be remediated, and the final form of the area affected is consistent with natural topography and land use patterns.

25.8.4 Effects on infrastructure, adjacent sites and public roads

- a. Whether the earthworks will affect stormwater and overland flows, and the extent to which this creates adverse effects off-site and increases stormwater flows onto other properties, including whether this will exceed existing stormwater design or stormwater management of those properties.
- b. Whether the earthworks or final ground levels will adversely affect existing infrastructure, utility services and assets.
- c. Where there will need to be off-site disposal of excess material or cleanfill, traffic generation effects limited to access, road network performance and safety, damage to the carriageway and amenity effects.
- d. Whether the use of legal instruments are necessary, such as a bond to ensure works are completed, the land disturbance area is rehabilitated, or for damage to roads.
- e. Any other measures employed to reduce the impact on other sensitive receivers such as aircraft operating in the Airport Protection Inner and Conical Surfaces for Queenstown and Wanaka Airports.

25.8.5 Land stability

- a. The extent to which any proposal demonstrates that fill associated with buildings, retaining, accesses and parking areas comply with the QLDC Land Development and Subdivision Code of Practice, where these matters have not already been addressed through a subdivision consent or building consent pursuant to Building Act 2004.
- b. Where earthworks are proposed on a site gradient greater than 18.5 degrees (1 in 3), whether advice from a suitably qualified person has been provided to address the stability of the earthworks.
- c. Whether cut, fill and retaining are designed and undertaken in accordance with the QLDC Land Development and Subdivision Code of Practice.
- d. Whether the earthworks and any associated retaining structures are designed and located to avoid adverse effects on the stability and safety of surrounding land, buildings, and structures.

25.8.6 Effects on water bodies, ecosystem services and indigenous biodiversity

- a. The effectiveness of sediment control techniques to ensure sediment run-off does not leave the development site or enter water bodies.
- b. Whether and to what extent any groundwater is likely to be affected, and mitigation measures are proposed to address likely effects.
- c. The effects of earthworks on the natural character, ecosystem services and biodiversity values of wetlands, lakes and rivers and their margins.

25.8.7 Cultural and archaeological values

- a. The extent to which the activity modifies or damages wāhi tapu or wāhi taonga, whether tangata whenua have been notified and the outcomes of any consultation.
- b. The extent to which the activity affects Ngāi Tahu's cultural, spiritual, historic and traditional association with a Statutory Acknowledgment Area having regard to the relevant provisions of the iwi management plans identified in Advice Note 25.3.3.7.
- c. The extent to which a protocol for the accidental discovery of kōiwi, archaeology and artefacts of Māori origin or other archaeological items has been provided and the effectiveness of the protocol in managing the impact on Mana Whenua cultural heritage if a discovery is made. Using the Accidental Discovery Protocol in Schedule 25.10 as a guide.
- d. Whether the proposal protects the relationship of Mana Whenua with their cultural heritage.
- e. Whether the area subject to earthworks contains a recorded archaeological site, and if so the extent to which the proposal would affect any such site and whether any necessary archaeological authority has been obtained from Heritage New Zealand Pouhere Taonga.
- f. The extent to which earthworks and vibration adversely affect heritage items.

25.8.8 Nuisance effects

- a. The extent to which earthworks will generate adverse noise, vibration, odour, dust, lighting and traffic effects on the surrounding environment and the effectiveness of proposed mitigation measures, including whether a management plan has been submitted as part of the application.

- b. Duration and hours of operation, including whether the activity will generate noise and vibration effects, which detract from the amenity values of the surrounding area to an extent greater than anticipated to accommodate development otherwise provided for by the District Plan.

25.8.9 Natural Hazards

- a. Whether the earthworks are necessary to avoid, remedy or mitigate the risk of any natural hazard.
- b. Where the proposal is affected by, or potentially affected by, natural hazards as identified in the Council's natural hazards database, particular regard shall be had to the Natural Hazards Chapter 28, in particular Policies 28.3.2.1, 28.3.2.2, 28.3.2.3.
- c. Whether the earthworks and final ground levels will adversely affect an aquifer or an overland flow path or increase the potential risk of flooding within the site or surrounding sites.
- d. The extent earthworks affect the risk of natural hazards and whether the risk is reduced or not increased.

25.8.10 Functional aspects and positive effects

- a. Whether the earthworks are necessary for the functional or operational requirements of infrastructure, including network utility installation, repair or maintenance.
- b. The extent to which the earthworks are necessary to accommodate development otherwise provided for by the District Plan.
- c. Whether the earthworks are associated with farming activities and will enhance operational efficiency including maintenance and improvement of track access, safety and fencing.
- d. Whether the earthworks are for the purposes of a fire break and the extent of the fire break is necessary.
- e. Whether the earthworks are for the purposes of public recreation trails that enhance recreational opportunities and access.
- f. Whether the earthworks are necessary for the remediation of contaminated land and facilitate the efficient use of the land resource.

25.9

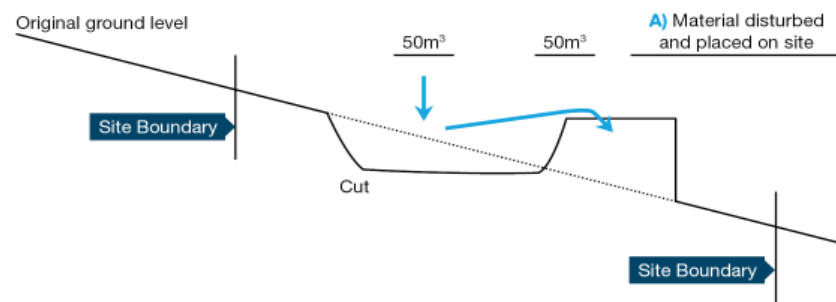
Interpretive Diagrams

25.1

Interpretative Diagram: Volume scenario A
Elevation View

The total volume of earthworks means 'the total volume of all material that is moved within a site'

$$\text{A) Total Volume} = 50\text{m}^3 \text{ (Cut)} + 50\text{m}^3 \text{ (Fill)} \\ = 100\text{m}^3$$

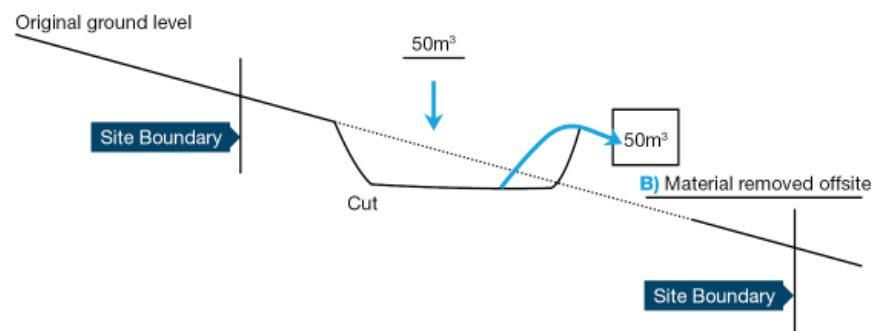


25.2

Interpretative Diagram: Volume scenario B
Elevation View

The total volume of earthworks means 'the total volume of all material that is moved within a site'

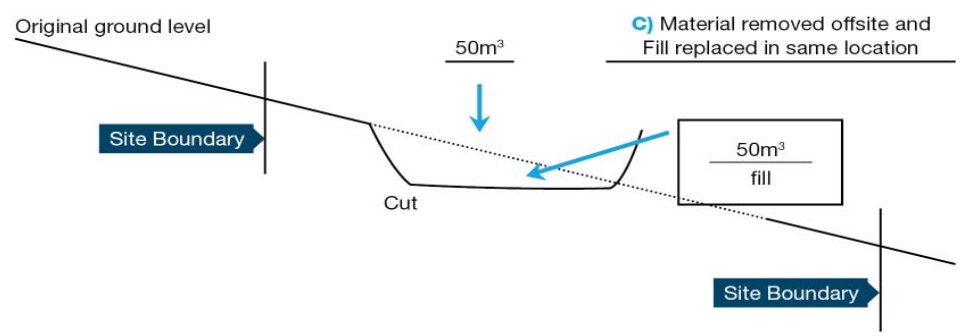
$$\text{B) Total Volume} = 50\text{m}^3 \text{ (Cut) removed off-site} \\ = 50\text{m}^3$$



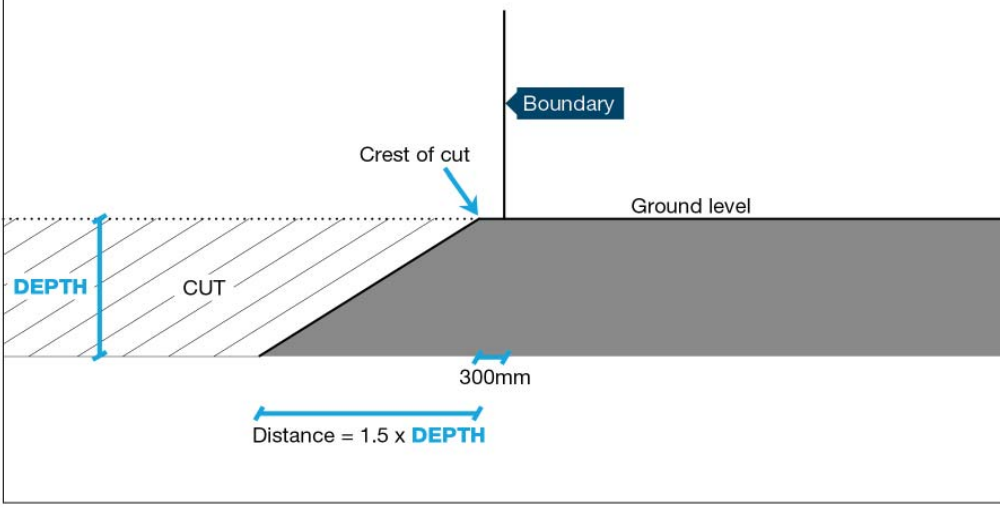
25.3 Interpretative Diagram: Volume scenario C
Elevation View

The total volume of earthworks means 'the total volume of all material that is moved within a site'

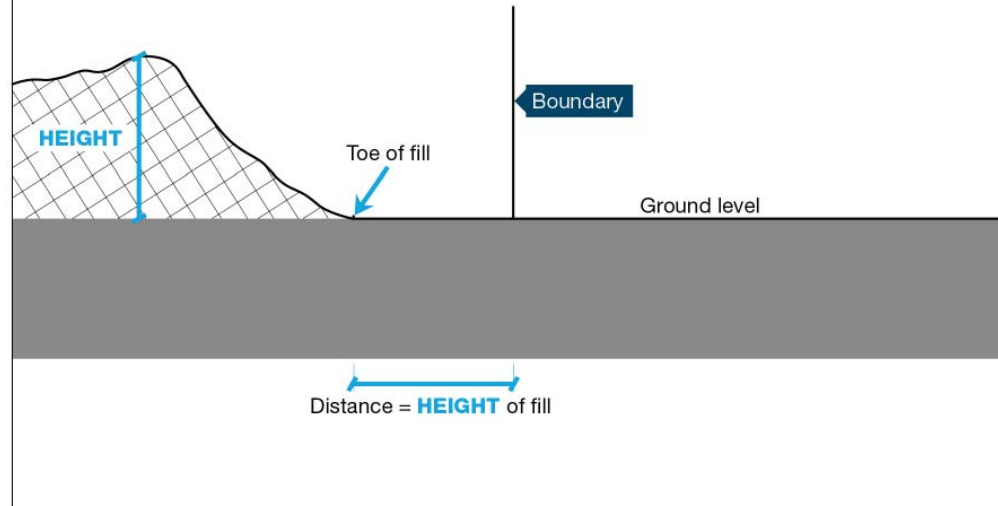
- C) Total Volume = 50m³ (Cut)** removed from site
- = 50m³ material placed in same location (i.e. compacted fill)
- = 100m³



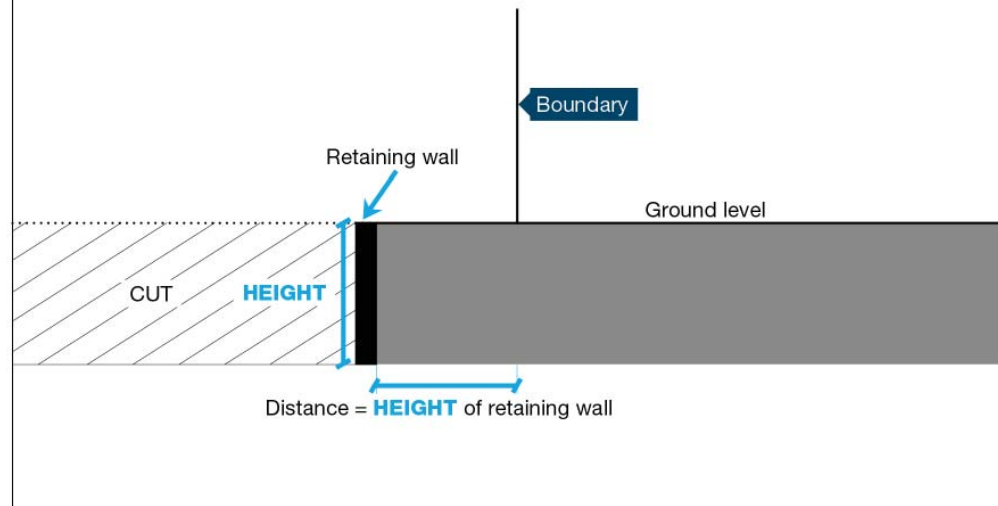
25.4 Interpretative Diagram: Unsupported Cut
Elevation View

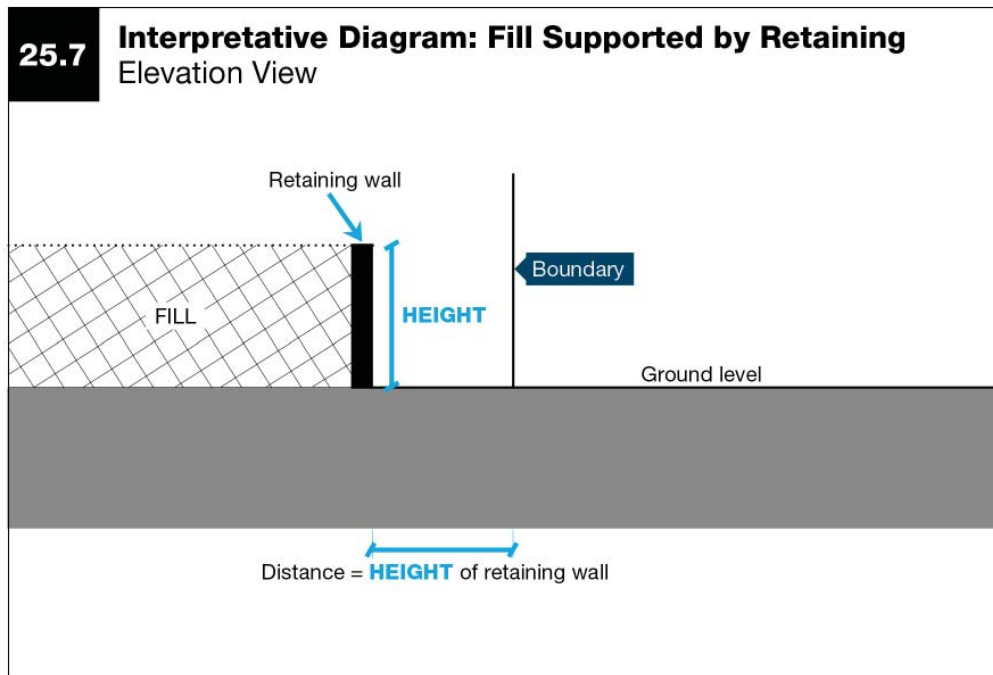


25.5 Interpretative Diagram: Unsupported Fill
Elevation View



25.6 Interpretative Diagram: Cut Supported by Retaining
Elevation View





25.10

Schedule 25.10 Accidental Discovery Protocol

Upon discovery of any material listed in Rule 25.5.15, the owner of the site or the consent holder must take the following steps:

Cease works and secure the area

- a. Immediately cease all works within 20m of any part of the discovery, including shutting down all earth disturbing machinery and stopping all earth moving activities, and in the case of evidence of contaminated land apply controls to minimise discharge of contaminants into the environment.
- b. Secure the area of the discovery, including a sufficient buffer area to ensure that all discovered material remains undisturbed.

Inform relevant authorities and agencies

- c. Inform the following parties immediately of the discovery:
 - (i) the New Zealand Police if the discovery is of human remains or kōiwi;
 - (ii) the Council in all cases;
 - (iii) Heritage New Zealand Pouhere Taonga if the discovery is an archaeological site, Māori cultural artefact, human remains or kōiwi;
 - (iv) Mana Whenua if the discovery is an archaeological site, Māori cultural artefact, or kōiwi.

Wait for and enable inspection of the site

- d. Wait for and enable the site to be inspected by the relevant authority or agency:
- (i) if the discovery is human remains or kōiwi the New Zealand Police are required to investigate the human remains to determine whether they are those of a missing person or are a crime scene. The remainder of this process will not apply until the New Zealand Police confirm that they have no further interest in the discovery; or
 - (ii) if the discovery is of other than evidence of contaminants, a site inspection for the purpose of initial assessment and response will be arranged by the Council in consultation with Heritage New Zealand Pouhere Taonga and appropriate Mana Whenua representatives; or
 - (iii) if the discovery is evidence of contaminants, a suitably qualified person is required to complete an initial assessment and provide information to the Council on the assessment and response.
- e. Following site inspection and consultation with all relevant parties (including the owner and consent holder), the Council will determine the area within which work must cease, and any changes to controls on discharges of contaminants, until the requirements of (f) are met.

Recommencement of work

- f. Work within the area determined by the Council at (e) must not recommence until all of the following requirements, so far as relevant to the discovery, have been met:
- (i) Heritage New Zealand has confirmed that an archaeological authority has been approved for the work or that none is required;
 - (ii) any required notification under the Protected Objects Act 1975 has been made to the Ministry for Culture and Heritage;
 - (iii) the requirements of the National Environmental Standards for Assessing and Managing Contaminants in Soil to Protect Human Health 2011 have been met;
 - (iv) any material of scientific or educational importance must be recorded and if appropriate recovered and preserved;
 - (v) where the site is of Māori origin and an authority from Heritage New Zealand Pouhere Taonga is not required the Council will confirm, in consultation with Mana Whenua, that:
 - any kōiwi have either been retained where discovered or removed in accordance with the appropriate tikanga; and
 - any agreed revisions to the planned works to be/have been made in order to address adverse effects on Māori cultural values.
 - (vi) any necessary resource consent has been granted to any alteration or amendment to the earthworks or land disturbance that may be necessary to avoid the sensitive materials and that is not otherwise permitted under the Plan or allowed by any existing resource consent.
 - (vii) there are no requirements in the case of archaeological sites that are not of Māori origin and are not covered by Heritage New Zealand Pouhere Taonga Act 2014.

Variation to Stage 1 PDP Chapter 2 Definitions:

Underlined text for additions and ~~strike through~~ text for deletions.

<p>Earthworks</p>	<p>Means the disturbance of land surfaces by the removal or <u>deposition on or change to the profile of land.</u></p> <p><u>Earthworks includes excavation, filling, cuts, root raking and blading, firebreaks, batters and the formation of roads, access, driveways, tracks and the deposition and removal of cleanfill. depositing of material, excavation, filling or the formation of roads, banks, and tracks. Excludes the cultivation of land and the digging of holes for offal pits and the erection of posts or poles or the planting of trees.</u></p>
<p>Landfill</p>	<p>Means a site used for the deposit of solid wastes onto or into land.</p> <p><u>Means the use of land for the primary purpose of providing a disposal facility for the controlled deposit of solid wastes, household wastes and green waste onto or into land. Excludes offal pits, silage pits and silage stacks that are part of a farming activity.</u></p>
<p>Mining Activity</p>	<p>Means the use of land and buildings for the primary purpose of the extraction, winning, quarrying, excavation, taking and associated processing of minerals and includes prospecting and exploration.</p> <p><u>Means operations in connection with mining for any mineral; and includes, when carried out at or near the site where the mining is undertaken:</u></p> <ul style="list-style-type: none"> • <u>the extraction, transport, treatment, processing, and separation of any mineral or chemical substance from the mineral; and</u> • <u>the construction, maintenance, and operation of any works, structures, and other land improvements, and of any related machinery and equipment connected with the operations; and</u> • <u>the removal of overburden by mechanical or other means, and the stacking, deposit, storage, and treatment of any substance considered to contain any mineral; and</u> • <u>the deposit or discharge of any mineral, material, debris, tailings, refuse, or wastewater produced from or consequent on the operations.</u> <p><u>Mineral extraction, extraction or extractive activities shall have the same meaning.</u></p>

New Definitions Stage 2 PDP:

<p><u>Cleanfill</u></p>	<p><u>Means material that, when buried, will have no adverse effects on people or the environment. Cleanfill material includes virgin natural materials such as clay, soil and rock, and other inert materials, such as concrete or brick, that are free of:</u></p>
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	<p>(a) <u>combustible, putrescible, degradable or leachable components;</u></p> <p>(b) <u>hazardous substances;</u></p> <p>(c) <u>products or materials derived from hazardous waste treatment, hazardous waste stabilisation, or hazardous waste disposal practices;</u></p> <p>(d) <u>materials that may present a risk to human or animal health, such as medical and veterinary waste, asbestos or radioactive substances; or</u></p> <p>(e) <u>liquid waste.</u></p>
<u>Cleanfill Facility</u>	<u>Means land used solely for the disposal of cleanfill. A cleanfill facility may include stockpiling, rehabilitation and landscaping.</u>
<u>Mineral Exploration</u>	<u>Means an activity undertaken for the purpose of identifying mineral deposits or occurrences and evaluating the feasibility of mining particular deposits or occurrences of 1 or more minerals; and includes drilling, dredging, or excavations (whether surface or subsurface) that are reasonably necessary to determine the nature and size of a mineral deposit or occurrence.</u>
<u>Mineral Prospecting</u>	<p><u>Means any activity undertaken for the purpose of identifying land likely to contain mineral deposits or occurrences; and includes the following activities:</u></p> <ul style="list-style-type: none"> • <u>geological, geochemical, and geophysical surveys;</u> • <u>the taking of samples by hand or hand held methods;</u> • <u>aerial surveys.</u>
<u>Regionally Significant Infrastructure</u>	<p><u>Means:</u></p> <ul style="list-style-type: none"> • <u>renewable electricity generation facilities, where they supply the National Grid and local distribution network and are operated by an electricity operator; and</u> • <u>electricity transmission infrastructure forming the National Grid;</u> • <u>electricity Distribution Lines identified on the Planning Maps; and</u> • <u>telecommunication and radio communication facilities*;</u> and • <u>municipal infrastructure**;</u> and • <u>roads classified as being of national or regional importance; and</u> • <u>Queenstown and Wanaka airports.</u> <p><u>* As defined by the Resource Management (National Environmental Standards for Telecommunication Facilities) Regulations 2016.</u></p> <p><u>** As defined by the Otago Regional Policy Statement 2015.</u></p>

Variation to Stage 1 Subdivision and Development Chapter 27:

Underlined text for additions and ~~strike through~~ text for deletions.

27.3.2 Earthworks associated with subdivision

- 27.3.2.1 Refer to Earthworks Chapter 25, Rule 25.3.4.1. ~~Earthworks undertaken for the development of land associated with any subdivision shall not require a separate resource consent under the rules of the District Wide Earthworks Chapter, but shall be considered against the matters of control or discretion of the District Wide Earthworks Chapter as part of any subdivision activity.~~

Variation to Stage 1 Jacks Point Zone Chapter 41:

Underlined> text for additions and ~~strike-through~~ text for deletions.

Page 41-3:

41.3.2.2 — Earthworks undertaken for the development of land associated with any subdivision shall be governed by Chapter 27: Subdivision and Development.

Pages 41-13 to 41-15:

Rule 41.5.4 Delete in entirety.

Earthworks (excluding earthworks associated with a subdivision)		RD								
<p>41.5.4.1 Volume of Earthworks</p> <p>The maximum total volume of earthworks (m^3) shall not exceed that specified in the table below.</p> <p>a. — The maximum total volume of earthworks shall be calculated per site, within one consecutive 12 month period.</p> <p>b. Volume shall mean the sum of all earth that is moved within a site and includes any combination of cut and fill, removing fill off-site and replacing fill on site — refer Interpretive Diagrams 5 (a), (b) and (c) of the Earthworks Chapter of the Operative District Plan.</p>										
<table border="1"> <thead> <tr> <th>Activity Area</th> <th>Maximum Total Volume</th> </tr> </thead> <tbody> <tr> <td>Residential Activity Areas Village Village Homestead Bay Open Space Horticulture Open Space Residential Open Space Foreshore Farm Buildings and Craft Activity Area Boating Facilities Area</td> <td>500 m^3</td> </tr> <tr> <td>Open Space Landscape Open Space Amenity Farm Preserve 1 and 2 Homesite</td> <td>1,000 m^3</td> </tr> <tr> <td>Open Space Golf Education Education Innovation Campus Lodge</td> <td>No maximum</td> </tr> </tbody> </table>		Activity Area	Maximum Total Volume	Residential Activity Areas Village Village Homestead Bay Open Space Horticulture Open Space Residential Open Space Foreshore Farm Buildings and Craft Activity Area Boating Facilities Area	500 m^3	Open Space Landscape Open Space Amenity Farm Preserve 1 and 2 Homesite	1,000 m^3	Open Space Golf Education Education Innovation Campus Lodge	No maximum	
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<p>41.5.4.2 — Height of cut and fill and slope</p> <p>OSL, OSG, OSA, FP-1 and 2, HS, E, EIC and L Activity Areas:</p> <ul style="list-style-type: none"> — No road, track or access way shall have an upslope cut or batter greater than 1 metre in height, measured vertically. — All cuts and batters shall be laid back such that their angle from the horizontal is no more than 65 degrees. — The maximum height of any fill shall not exceed 2 metres. 										

~~c. All other Activity Areas:~~

- ~~• The maximum height of any cut shall not exceed 2.4 metres.~~
- ~~• The maximum height of any fill shall not exceed 2 metres.~~
- ~~• The vertical height of any cut or fill shall not be greater than the distance of the top of the cut or the toe of the fill from the site boundary (see Interpretative Diagram 6 of the Earthworks Chapter of the Operative District Plan), except where the cut or fill is retained, in which case it may be located up to the boundary, if less or equal to 0.5 metre in height.~~

~~41.5.4.3 Fill~~

~~All fill for residential building platforms and associated retaining walls is to be in accordance with the requirements of NZS 4404:2010 and/or NZS 4431:1989 as appropriate.~~

~~41.5.4.4 Environmental Protection Measures~~

~~Any person carrying out earthworks shall implement sediment and erosion control measures to avoid sediment effects beyond the boundary of the site.~~

- ~~d. Any person carrying out earthworks shall implement appropriate dust control measures to avoid nuisance effects of dust beyond the boundary of the site.~~
- ~~e. Areas of exposed soil are to be vegetated / re-vegetated within 12 months from the completion of works.~~

~~41.5.4.5 Water bodies~~

~~Earthworks within 7m of the bed of any water body shall not exceed 20m³ in total volume, within one consecutive 12 month period.~~

- ~~f. Any material associated with earthworks activity shall not be positioned within 7m of the bed of any water body or where it may dam, divert or contaminate water.~~
- ~~g. Earthworks shall not:~~
 - ~~• cause artificial drainage of any groundwater aquifer;~~
 - ~~• cause temporary ponding of any surface water.~~

~~41.5.4.6 Cultural heritage and archaeological sites~~

~~Earthworks shall not modify, damage or destroy any waahi tapu, waahi taonga or identified feature in Chapter 26, or any archaeological site.~~

~~Discretion is restricted to all of the following:~~

- ~~• The nature and scale of the earthworks~~
- ~~• Environmental protection measures~~
- ~~• Remedial works and revegetation~~
- ~~• The effects on landscape and visual amenity values~~

<ul style="list-style-type: none">• The effects on land stability and flooding• The effects on water bodies• The effects on cultural and archaeological sites• Noise	
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