

See your Council first!

Council Officers can:

- Give you information about your property, including what activity area it is in.
- Explain the District Plan, Building Act and Building Code, Resource and Building Consent requirements.
- Inform you of what expert information you require.
- Advise on the best plants to promote stability.
- Provide emergency preparedness information.

Contacts

If you have any questions, please contact:

Development Services Group

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June 2006

Planning on building or landscaping?

Building and landscaping work such as laying driveways and paving, building decks, fences and retaining walls, removing vegetation and doing earthworks, all have the potential to increase the risk of landslides.

If you are planning on doing any building or landscaping, you should consider the following things before you start:

- Steepness of your property, soil type, nature of surface material, vegetation cover, water flows and drainage. Seek professional advice if necessary.
- Location of stormwater systems and utilities.
- Potential effects on neighbouring properties, including those properties above and/or below yours and those on either side.
- Provisions of the City of Lower Hutt District Plan and resource consent requirements.
- Provisions of the Building Act, Building Code and building consent requirements.
- The Small Earthworks Guidelines, available from Greater Wellington Regional Council.

Thinking of building a retaining wall?

Retaining walls are commonly built on sloping properties and come in a variety of sizes and materials. They promote slope stability by reinforcing a cut slope. However, careful design and maintenance is required. While possible to build them yourself, it is best to consult a chartered professional engineer. Specific design may be required depending on the soil type and level of the water table. Adequate drainage is very important. Allowing water to build up behind the wall can cause it to fail.

For further information, see BRANZ Bulletin 394 *Low Retaining Walls* available at www.branz.co.nz

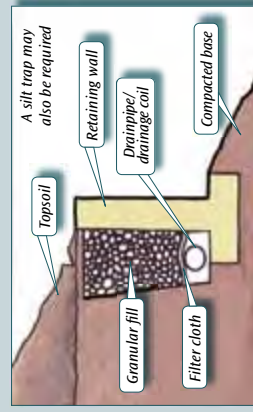


Illustration by Daniel Mills

When do retaining walls require a building consent?

A building consent is required for retaining walls that:

- Are more than 1.5 metres in height, or
 - Support any surcharge.
- A surcharge is any load, in addition to the level ground, that will push against the wall. Surcharge loadings include sloping backfill above the wall, trees, water, vehicle decks, driveways and fences. Walls that support a surcharge must be designed by a chartered professional engineer, and supporting calculations included in the building consent application.

Regardless of whether or not the wall needs a building consent it must comply with the Building Code. Council Building Consent Officers can answer any questions you may have about building consents and the Building Code. Further information can be found on the Council website: www.huttcity.info/building

When do retaining walls require a resource consent?

The resource consent requirements for retaining walls vary depending on which activity area (zone) your property is in under the District Plan.

Constructing a retaining wall usually involves earthworks – moving earth or fill. In Hill Residential and Landscape Protection Activity Areas resource consent is needed for all earthworks. In other residential activity areas resource consent is required if the natural ground level is to be altered by more than 1.2m vertically and/or more than 50m³ of earth or fill is involved. You may be required to provide an engineer's report with the application. There are also rules for earthworks in non-residential activity areas. Contact a Council resource consent planner for further information.

The location and/or height of the wall may also mean that it needs resource consent. Council resource consent planners can advise you on the requirements of your particular proposal. Copies of the District Plan are held in all Hutt City libraries. Further information can be found on the Council website: www.huttcity.info/district_plan

Please note the retaining wall illustrated at left would require a building consent and may require a resource consent.



Managing the risk of landslides

A guide for people on hillside properties



Development Services Group

Landslide Risk

The steepness of hills in the Hutt area, particularly around Stokes Valley, the Eastern Bays and the Western Hills, makes them prone to landslides. Heavy rainfall in 2004 highlighted the threat landslides pose to people and property: some houses were left uninhabitable.

Areas of highest risk

The areas of highest risk from landslides in the Wellington region are:

- Steep slopes greater than 35 degrees.
- Slopes that have been altered, such as cuttings along roads and behind houses, or where vegetation has been removed.
- Where the underlying rock is weathered or shattered, or where the surface material is soft or loose.
- Where landslides have occurred in the past.

For further information about landslides and what causes them, see Greater Wellington's Landslide Hazard Factsheet, available at www.govt.nz

How to manage the risk of landslides on your property

1. **Know your property**
Research the history and geology of your property. Talk to neighbours and Council officers to find out if landslides have previously occurred in your area.
2. **Get professional advice**
Before starting any building or landscaping, or if you have any doubts about the stability of your property, seek the advice of a chartered professional geotechnical engineer. A list can be found in the Yellow Pages under "Engineers – Consulting". Obtaining professional advice early on can prevent having to take extensive remedial action later.

Be prepared

- Maintain an emergency plan and survival kit. Contact the Council for an Emergency Planning Guide or see the back page of the Yellow Pages for more information. Further information can be found on the Council website: www.huttcity.info/emso
- Regularly inspect and maintain your property. The Checklist below right can be used as a guide.
- Report the location of any landslides that you find to Council officers.

What should you do in a landslide?

1. Evacuate – take your emergency kit.
2. Warn neighbours who might be affected.
3. Contact the fire service, police or local civil defence emergency management office.
4. Do not re-enter your property until it has been inspected and deemed safe.

Protecting your property: Steps you can take

Be aware of the signs of instability and fix the problem.

Check your property regularly, especially after earthquakes, long dry spells or heavy rain. Consult a chartered professional geotechnical engineer for advice if you notice:

- Slope movement, such as small slips, rock falls, subsidence or bulges at the bottom of slopes.
- Cracks in ground, plaster, brick work, tiles, foundations, retaining walls, driveways and other hard surfaces.
- Tilting trees, walls or fences.
- Ground that has become waterlogged, or water seeping at the bottom of cut slopes.
- Building movement such as doors or windows that stick or jam, and outside fixtures such as steps that are pulling away from buildings.

Drainage: Too much water is the most common trigger of landslides. Consider drainage patterns when changing the slope of your property. Stormwater must drain to approved outlets – do not let it build up. If uncontrolled stormwater runoff damages other properties you may be legally liable for the damage.



Earthworks: Digging up the ground can cause slope instability – especially if the toe of a slope is removed. Consult a chartered professional geotechnical engineer before planning any earthworks on slopes. A consent may be required by the District Plan or Council bylaws. Check with Council consent officers.

Hard surfaces increase runoff. Use porous alternatives, such as gravel, where possible, or install additional drainage. Any hard surface greater than 45m² must be connected to the stormwater system and requires a building consent.

Vegetation: Think carefully before removing shrubs and trees. Plants promote stability as they bind the soil and soften the impact of rain falling on the ground. Cutting down a tree but leaving the stump does not maintain long-term stability. Tree roots shrink as they rot, leaving space for water to enter the soil and weaken the slope. Don't let garden waste pile up as it can add material to debris flows. In some areas, vegetation removal requires a resource consent. Check with Council resource consent planners.

Original illustration by Daniel Mills

CHECKLIST:

Check for	Action
Spouting, guttering, drains & culverts	Clear all dirt, leaves and other blockages, empty filters
Retaining walls	Trim back or remove vegetation blocking drains and gutters
Hard surfaces	Repair cracks & leaks
Garden & grounds	Clear drainage system
	Consult a chartered professional engineer for advice
	Install adequate drainage/stormwater controls
	Dispose of garden rubbish
	Plant bare areas
	Consult a chartered professional geotechnical engineer for advice
	Cracks (especially above cut slopes)
	Blockages & overflows
	Cracks & leaks
	Blocks in drainage system
	Water build-up behind the wall
	Excess runoff
	Piles of garden rubbish on slopes
	Bare slopes
	Cracks (especially above cut slopes)