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# LM Land Management

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The explanation/principal reasons for the provisions in this section have been moved to Appendix 1.

## Land Management

### *Issues*

#### LM 11 (Issue 10)

Land use and management practices that are inappropriate to the specific characteristics of the site, (including soil type) may cause adverse effects on the environment.

Adverse effects may include the following:

- (a) Erosion of land and the banks of rivers, streams, lakes, and wetlands.
- (b) Reduction of the life-supporting capacity of soil over time either from a loss of soil, the deposition of erosion detritus down-slope or in down-stream areas, or by reducing soil health.
- (c) Increased sediment levels in rivers, streams, lakes, land drainage canals and wetlands, which may reduce water quality; adversely affect aquatic habitat values; reduce the flood flow capacity of rivers, streams and land drainage canals; lead to unstable river and stream systems; and lead to the infilling of wetlands and coastal estuaries and harbours.
- (d) Increased nutrient levels in waterways, which can reduce water quality, change aquatic ecosystems, decrease recreation and other public amenity values, and may lead to adverse effects on human health due to algal blooms.
- (e) Reduced protective function of coastal sand dune systems.
- (f) Adverse effects on ecological values, cultural values, natural character and landscapes. Such values may be modified, damaged or destroyed by inappropriate use and development activities. High natural character contributes to recreational values. The maintenance or enhancement of terrestrial and aquatic ecological values is important to indigenous biodiversity.
- (g) Increased faecal coliform levels in water as a result of diffuse runoff from land use.
- (h) The degradation of peat soils.

The major land use activities and areas of concern in the Bay of Plenty are:

- 1 Land use and land management practices that are not suited to the characteristics of the site. Site characteristics include soil type, slope, receiving environment, assimilative capacity of the environment, and climatic conditions. There is insufficient information identifying the adverse effects of specific land use and land management practices on soil and water resources in the Bay of Plenty. The effects on light volcanic soils, and steep greywacke hill country is of particular concern.
- 2 Animals grazing adjacent to streams, rivers and lakes can increase the risk of direct or diffuse discharges of nutrients, faecal material and sediment to water, and can increase bank erosion.

- 3 Land disturbance activities that are not undertaken in accordance with standards required to avoid, remedy or mitigate adverse effects on the environment. These include earthworks, vegetation disturbance, and cultivation where there is a discharge of sediment to water. Sediment from land disturbance activities is of concern around Tauranga Harbour (resulting from inappropriate developments and earthworks), and the Ohiwa Harbour (where areas of kaimoana [sea food] are affected).
- 4 The inappropriate use of fire for vegetation clearance, particularly on young soils, steep land, and pumice country. The water and soil related concerns are loss of organic matter and nutrients from soils, and the discharge of potash (resulting from ash) to streams.
- 5 Damage to the protective functions of coastal sand dunes, which increases the risk of erosion and flooding from storm events along the Bay of Plenty coast, in particular from Waihi Beach to Opape.
- 6 Inappropriate use and development in riparian management areas, including soil disturbance, vegetation clearance, and inappropriate grazing practices, that lead to erosion and the discharge of sediment to water.
- 7 Peat soils are being degraded by over-drainage (including sub-surface drainage) and inappropriate cultivation, which dry the soil. As peat dries, it shrinks and cracks, making the soil difficult to re-wet. The depth of topsoil also decreases. Inappropriate cultivation can also damage the fibrous structure of peat soils. While the total area of peat soils in the region is not large, the productive value of that area is significant. The main areas of peat soils in the Bay of Plenty region are the Rangitaiki Plains, and localities around Papamoa, Maketu, Pukehina, and Waitahe Drainage District area. Such soils are not as apparent as in other regions, as peat is often buried under layers of other soil types, or appear in mixed layers.

*Objective* IM O1, LM O1, LM O3, LM O4, LM O5, IM O7

*Policy* IM P1, LM P1, IM P2, IM P3, IM P4, LM P3, IM P5, IM P8

*Method* LM M1, IM M1, LM M3, IM M3, LM M4, LM M5, LM M6, LM M7, LM M8, LM M10, IM M5, IM M7, IM M8, LM M16, LM M17, LM M19, IM M10, LM M21, IM M12, IM M15, LM M23, LM M24, LM M25, IM M24

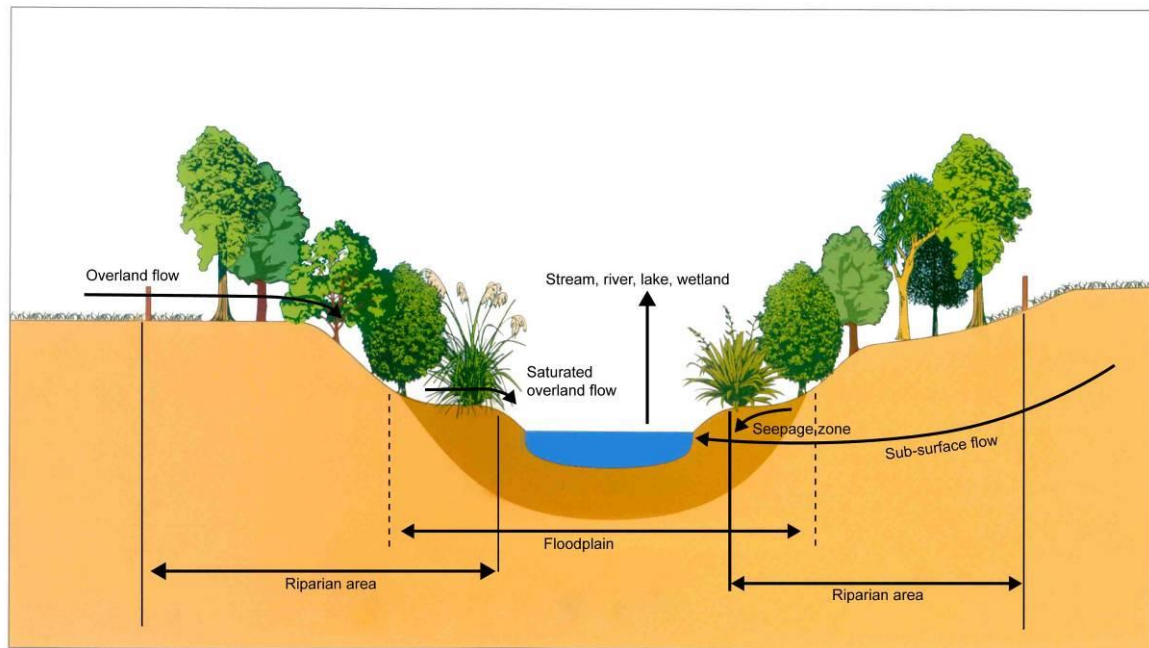
*Rule* LM R1 to LM R16, LM R17, LM R18

LM I2 (Issue 13)

There is a lack of suitable riparian vegetation in some areas of the region that is necessary to stabilise the margins of surface water bodies and filter surface runoff.

Riparian areas are strips of land bordering streams, rivers, lakes or wetlands, which is one of the major areas of interaction between land and water resources where activities can have direct and significant effects on surface water resources. Refer to Figure LM 1 for an illustration of riparian areas. Management of riparian areas forms an important part of this regional plan. However, it is recognised that riparian retirement and planting is one part of a 'tool box' of management options to avoid, remedy or mitigate the adverse effects of land use activities on the environment.

Figure LM 1 Riparian Area



Adapted from Taranaki Regional Council, 2001.

Appropriate management of riparian areas has a number of benefits, including:

- 1 **Water quality.** Riparian vegetation can improve water quality as a result of natural filtering, absorption (accumulation of particles) and absorption of contaminants, particularly nutrients. Natural vegetation buffers, such as riparian areas, maximise the utilisation of nutrients by trapping and using nitrogen and phosphorus for plant growth. This filters water entering surface water bodies. Riparian vegetation also intercepts sediments present in rainfall runoff. Riparian areas provide the last opportunity to prevent sediment entering water bodies, and for this reason they are regarded as important for water quality management. Riparian plants may mitigate the adverse effects of land management practices on surface water bodies if such areas are appropriately vegetated and managed. However, it is recognised that riparian retirement and planting is one part of a 'tool box' of management options to avoid, remedy or mitigate the adverse effects of land use activities on the environment.
- 2 **Soil conservation.** Riparian vegetation cover stabilises stream banks and reduces bank erosion, especially during flood events. This reduces the amount of sediment released to water. The vegetation also slows surface runoff to water bodies, and reduces erosion.
- 3 **Terrestrial habitat.** Riparian vegetation provides terrestrial habitats and wildlife corridors for birds, plants and other species, and contributes to the indigenous biodiversity of representative vegetation types where appropriate indigenous vegetation is used. It is recognised that plant and animal pests may be a problem in riparian areas.
- 4 **Aquatic habitats.** Riparian vegetation increases shade, which reduces stream temperatures to that preferred by native fish and trout. Shade also reduces weed growth in waterways. Leaves and debris dropped into streams, rivers and lakes are a food source for fish and invertebrates, and provide habitat for invertebrates.
- 5 **Natural character and landscape values.** Appropriate riparian vegetation can enhance the natural character and landscape values of rivers, streams, lakes and wetlands.

Although water management and soil conservation are usually the main reasons for establishing and maintaining riparian vegetation, they have other important functions. Managing riparian areas is usually undertaken for multiple objectives, some of which can be conflicting. It is therefore essential to identify the priority objectives for the particular site. The appropriate riparian area (or width) for a site relates to slope/topography, sensitivity of adjacent water body, water quality of adjoining water body, management objectives, adjacent land use, and management requirements.

Many of the costs of management will be incurred by the property in which the riparian area is situated, whereas many benefits will occur outside the property, such as in the stream and elsewhere within the region. Benefits are also likely to occur over a long time period. Some riparian areas will produce benefits immediately. Others may only have a short productive life. A few riparian areas may take years to produce positive results, which may mean that the benefits only accrue to future generations.

*Objective* LM O2, TH O1, RL O3, OH O1

*Policy* IM P1, IM P2, IM P4

*Method* LM M1, IM M1, LM M2, LM M3, LM M5, IM M8, LM M17, LM M25

*Rule* LM R1 to LM R16, LM R17, LM R18

## Objectives

- LM O1 (Objective 9) Land use and land management practices are appropriate to the environmental characteristics and limitations of the site, and avoid, remedy or mitigate adverse effects on the life-supporting capacity of soil resources, the receiving environment and heritage values.
- LM O2 (Objective 17) Riparian margins are appropriately managed to protect and enhance their soil conservation, water quality and heritage values.
- LM O3 (Objective 19) Protect vulnerable areas from erosion.
- LM O4 (Objective 20) The intactness and health of the region's soils is maintained.
- LM O5 (Objective 21) Maintain and improve the protective function of coastal sand dunes.

## Policies

- LM P1 (Policy 22) To research and monitor the effects of land use practices on surface and groundwater quality, and take appropriate action within the framework of this regional plan (including future plan changes) where such investigations indicate land use has significant adverse effects on water quality, or there is a high risk that future development would adversely affect water quality. This is particularly relevant to lakes, and groundwater used for municipal water supply.
- LM P2 (Policy 23) To develop equitable and workable provisions in relation to existing land uses, where investigations indicate that changes to existing land management practices, or land use restrictions are required to maintain or improve water quality.
- LM P3 (Policy 27) To use a range of mechanisms, including education, and regulation where necessary and appropriate, to avoid, remedy or mitigate the adverse effects of land use activities on water quality, or for soil conservation purposes, in order to achieve stated environmental objectives. Areas of particular concern in the Bay of Plenty are riparian margins, steep slopes, erosion-prone soils, the recharge areas of potable groundwater supplies, and the catchments of the Rotorua lakes.

LM P4 (Policy 29) To continue to monitor and investigate the cause and effect of biological responses to the adverse effects of use and development activities. This includes, but is not limited to, aquatic weed, algal blooms and lake 'foams'.

## Methods of Implementation

The Regional Council will:

### *Education, Promotion and Provision of Information*

LM M1 (Method 24) Prioritise the promotion of sustainable land management, soil conservation, the retirement and planting of riparian areas, the adoption of Environmental Programmes and other appropriate practices, in the following locations:

- (a) Where there is high vulnerability to erosion based on slope, soil type and climatic conditions, including ephemeral flowpaths on the pumice plateau, steep erodible gullies and headwater areas, riparian areas, lake and harbour margins, the open coastline, and areas which are already eroded or eroding.
- (b) Where effects of land use activities are causing water quality to fall below the Water Quality Classifications of the water body.
- (c) In the catchments of sensitive receiving environments, especially the Rotorua lakes, and Tauranga and Ohiwa harbours.
- (d) Where intensification of land use is occurring.
- (e) Areas where there are multiple environmental benefits, including habitat, water quality, biodiversity, and other values.

LM M2 (Method 26) Continue to encourage the retirement and planting of riparian areas in all areas of the region to:

- (a) Stabilise the banks of rivers, streams, lakes and estuaries to prevent erosion.
- (b) Improve water quality by mitigating the effects of land use activities, including through the reduction of sediment, nutrient and pathogen contamination.
- (c) Enhance habitats of indigenous flora and fauna, and complete ecological corridors.
- (d) Indirectly mitigate the effects of the take and use of surface water on water temperature and the assimilative capacity of rivers and streams.

LM M3 (Method 27) Encourage the retirement of riparian areas with appropriate indigenous vegetation during the planting, or replanting of production forestry.

LM M4 (Method 31) Educate drilling operators in the region to ensure:

- (a) The requirements of the National Drilling Standards are met.
- (b) The information required as part of bore logs is accurately collected and sent to the Regional Council in the appropriate form.

LM M5 (Method 32) Encourage the use of suitable indigenous species for soil conservation plantings, and in particular the use of eco-sourced stock where available.

LM M6 (Method 33) In conjunction with the city council and district councils, encourage and support the planting of indigenous vegetation in the riparian areas of waterways in urban areas.

- LM M7 (Method 34) Undertake education and other suitable programmes, including workshops, to increase earthwork operator's awareness of the relevant policies and regulations in this regional plan, and provide information and advice on best management practices.
- LM M8 (Method 35) Encourage land users and developers to reuse topsoil, where appropriate, where the topsoil has been removed from a site as a result of earthworks.
- LM M9 (Method 36) Educate the community to use best management practices, as identified in LM M14, to avoid, remedy or mitigate nutrient outputs from land use and development in the catchments of the Rotorua lakes.
- LM M10 (Method 37) Educate the community on the appropriate management of peat soils in the region, including practices to avoid, remedy or mitigate the adverse effects of use and development on such resources.
- LM M11 (Method 38) Educate the community on:
- (a) The stewardship of soil and water resources, ecosystems, and cultural, amenity, natural character and landscape values; and
  - (b) Appropriate resource management practices to avoid, remedy or mitigate adverse effects on the environment, including people and properties downstream.
- LM M12 (Method 39) Encourage the use of appropriate irrigation rates, volumes and techniques to avoid or mitigate the transport of contaminants (including nutrients and bacteria) from land into groundwater and surface water.
- LM M13 (Method 40) Educate the community on bacterial contamination of water resources resulting from diffuse discharges from rural areas and paved urban areas, and measures they can use to avoid or mitigate such contamination.

### *Working with Other Resource Management Agencies and the Community*

- LM M14 (Method 45) In conjunction with appropriate parties, investigate and document best management practices for nutrient management, including reduction and mitigation measures, for urban and rural land uses.

### *Works and Services Provided by the Regional Council*

- LM M15 (Method 49) Reduce bacterial levels in lakes, and at bathing sites in rivers and streams to meet bathing standards by:
- (a) Requiring effective treatment of on-site effluent before discharge.
  - (b) Promoting the fencing and planting of riparian areas.
  - (c) Requiring the appropriate management of stock access and crossing of the beds of lakes, rivers and streams.
  - (d) Promoting sustainable land management.
  - (e) Requiring discharges of contaminants to water to meet the bacterial standard of the Water Quality Classification of the receiving water body as a minimum.



### *Regulatory Methods*

- LM M16 (Method 51) In partnership with resource user groups, and in consultation with other stakeholders:
- (a) Consider establishing accreditation systems for other resource users and developers, including, but not limited to, non-forestry earthwork operators and the primary production sector. (Refer to LM M19).
  - (b) Encourage the development of industry guidelines to address the adverse effects of activities.

- LM M17 (Method 53) Where necessary and appropriate, use rules to restrict the use and development of land that is otherwise allowed by section 9 of the Act where:
- (a) The actual or potential adverse environmental effects of the activity are:
    - (i) More than minor
    - (ii) A high risk to the environment due to adverse long-term effects on water quality, including groundwater and water quality in lakes, rivers and streams.
  - (b) The activity is undertaken in a location that presents a high risk to the environment due to proximity to surface water bodies or the Coastal Marine Area, land slope, vulnerability to erosion, or resources that are otherwise vulnerable to adverse effects (including the protective function of coastal sand dunes).

**Note:** The development and inclusion of further regional rules in this regional plan will be carried out in accordance with the requirements of the Act, which includes consultation with the city council and district councils.

- LM M18 (Method 54) Use permitted activity rules to allow activities that are otherwise restricted by sections 13, 14, 15 of the Act where:
- (a) The actual or potential adverse environmental effects of the activity are no more than minor.
  - (b) Adverse effects on the environment can be avoided, remedied or mitigated by conditions in permitted activity rules.

**Note:** In accordance with the restrictive premise of sections 13, 14, 15 of the Act, consents will be required for any activity listed in these sections of the Act that are not otherwise permitted by rules in this regional plan.

- LM M19 (Method 55) Use permitted activity rules to allow activities that are otherwise restricted by other rules, where the activity is carried out by an operator who has adopted good environmental management practices to avoid, remedy or mitigate adverse effects on the environment. The rules will require compliance with standard permitted activity rule conditions.

### *Matters Relevant to Resource Consent Applications and Processing*

- LM M20 (Method 58) Require drilling and bore records information to be collected and provided to the Regional Council for the purpose of establishing an accurate record of groundwater resources in the region.
- LM M21 (Method 59) Discourage the inappropriate use of fire as a land preparation method through a combination of advice and rules.

- LM M22 (Method 61) Consider reviewing resource consents for point source discharges of contaminants to water, or to land where the contaminant or its by-products may enter water, in catchments where water quality in a river or stream does not meet its water quality classification, and discharges are identified to be a cause of the water degradation. The Regional Council will review a resource consent in accordance with section 128 of the Act, where it is proven that adverse environmental effects will occur or continue due to the exercise of that consent.

### *Monitoring and Investigation of the Environment*

- LM M23 (Method 70) Use the results of NERMN monitoring to assess the effects of land use activities and changes in land use patterns on surface water and groundwater quality and quantity. With regards to water quantity, climatic variations, re-vegetation and other natural events will be taken into account.
- LM M24 (Method 71) Continue to consult with relevant regional land user and industry groups to identify any areas where research is required into land management and sustainability issues, and facilitate research projects as appropriate.
- LM M25 (Method 78) Monitor the following:
- (a) The effectiveness of riparian management and plantings on water quality and instream biota using a programme that is consistent with national guidelines.
  - (b) Sites protected under covenants which are part of Regional Council Farm Plans, Environmental Plans and Environmental Programmes.

## **Rules**

### **Advisory Note**

- 1 Refer to the Beds of Water Bodies section for activities in the beds of rivers, streams, or lakes, or the Wetlands section for activities in wetlands.
- 2 The discharge of dust from earthworks, and smoke and particulates from burning is addressed in the Operative Bay of Plenty Regional Air Plan.
- 3 The rules in this regional plan do not authorise the modification or disturbance of any archaeological or registered waahi tapu sites within the area of the activity. Written authority from Heritage New Zealand Pouhere Taonga is required prior to any destruction, damage or modification of an archaeological or registered waahi tapu site or an area where there is reasonable cause to suspect there is an archaeological site. Should any artefacts, bones or any other sites of archaeological or cultural significance be discovered within the area affected by the activity, written authorisation should be obtained from Heritage New Zealand Pouhere Taonga before any damage, modification or destruction is undertaken.
- 4 Land disturbance activities are also controlled by provisions in district plans. City and district councils address subdivision and geotechnical aspects of earthworks, including matters relating to the Building Act 2004, land use, and such matters as landscape, natural character, amenity values, and protection of heritage sites.
- 5 Compliance with the provisions of this regional plan does not remove the need to also comply with district plan provisions.
- 6 For the avoidance of doubt, the Riparian Management Zone does not apply to areas of land adjacent to ephemeral flowpaths and artificial watercourses.

## Earthworks and Quarries

### LM R1 (Rule 1)

### Permitted – Earthworks and Quarries

The disturbance of land and soil as a result of earthworks or a quarry, where the activity does not exceed the limits in Table LM 1 within any 12 month period is a permitted activity subject to the following conditions:

Table LM 1 Permitted Limits for Earthworks and Quarries

	General Area	Land Slope	Distance from Water Body	Permitted Limits within any 12 month period
(a)	Urban areas on Sand Dune Country, and previously developed subdivisions on Sand Dune Country	No greater than 35°	Coastal land between 50 metres landward of the Coastal Marine Area and either: (i) 150 horizontal metres landward of the Coastal Marine Area; or (ii) the point where land changes from sand dune country to another soil type; whichever is the lesser distance.	Exposed area no greater than 400 m <sup>2</sup> and volume no greater than 200 m <sup>3</sup> .
(b)	Riparian Management Zone – Rotorua Lakes	0 to 15°	Between 0-20 horizontal metres from the edge of the lake	Exposed area no greater than 100 m <sup>2</sup> and volume no greater than 50 m <sup>3</sup> .
		>15 to 25°	Between 0-25 horizontal metres from the edge of the lake	
		>25 to 35°	Between 0-40 horizontal metres from the edge of the lake	
(c)	Riparian Management Zone - other lake not specified in (b), wetland or the bed of any river or stream, excluding streams and rivers with Water Supply water quality classification and Schedule 1 streams	0 to 7°	Between 0-5 horizontal metres from the edge of the water body	Earthworks excluding stream crossings - Exposed area no greater than 400 m <sup>2</sup> and volume no greater than 200 m <sup>3</sup>
		>7 to 15°	Between 0-10 horizontal metres from the edge of the water body	
		>15 to 25°	Between 0-20 horizontal metres from the edge of the water body	Earthworks for stream crossing purposes – exposed area no greater than 1,000 m <sup>2</sup> per crossing.
		>25 to 35°	Between 0-25 horizontal metres from the edge of the water body	
(d)	Riparian Management Zone – streams and rivers with Water Supply water quality classification	0 to 15°	Between 0-20 horizontal metres from the edge of the water body	Earthworks excluding stream crossings – Exposed area no greater than 400 m <sup>2</sup> and volume no greater than 200 m <sup>3</sup> .
		>15 to 25°	Between 0-25 horizontal metres from the edge of the water body	
		>25 to 35°	Between 0-40 horizontal metres from the edge of the water body	Earthworks for stream crossing purposes – exposed area no greater than 1000 m <sup>2</sup> per crossing.
(e)	Riparian Management Zone – Schedule 1 streams	0 to 7°	Between 0-5 horizontal metres from the edge of the water body	Earthworks excluding stream crossings - Exposed area no greater than 400 m <sup>2</sup> and volume no greater than 200 m <sup>3</sup> .
		>7 to 15°	Between 0-10 horizontal metres from the edge of the water body	
		>15 to 25°	Between 0-20 horizontal metres from the edge of the water body	Earthworks for stream crossing purposes – exposed area no greater than 600m <sup>2</sup> per crossing.
		>25 to 35°	Between 0-25 horizontal metres from the edge of the water body	

	General Area	Land Slope	Distance from Water Body	Permitted Limits within any 12 month period
(f)	Ephemeral Flowpath not in the Erosion Hazard Zone	No greater than 35°	N/A	Earthworks excluding roading crossings - Exposed area no greater than 100 m <sup>2</sup> and volume no greater than 50 m <sup>3</sup> per individual flowpath. Earthworks outside urban areas for roading crossing purposes – exposed area no greater than 400 m <sup>2</sup> per crossing.
(g)	Coastal Margin	No greater than 35°	Land between 20-40 horizontal metres as measured from the Coastal Marine Area on the edge of an estuary, harbour, or the open rocky coast.	Exposed area no greater than 400 m <sup>2</sup> and volume no greater than 200 m <sup>3</sup> .
(h)	Land not in areas covered by (a) to (e), and not in the Erosion Hazard Zone	0 to 15°	N/A	Exposed area no greater than 1 hectare and volume no greater than 5,000 m <sup>3</sup> .
		>15 to 25°	N/A	Exposed area no greater than 5,000 m <sup>2</sup> and volume no greater than 5,000 m <sup>3</sup> .
		>25 to 35°	N/A	Exposed area no greater than 500 m <sup>2</sup> and volume no greater than 500 m <sup>3</sup> .
<b>Notes:</b>				
1	Any earthworks: (a) In the Erosion Hazard Zone, or (b) On slopes greater than 35 degrees; or (c) On coastal land between 0-50 metres of the Coastal Marine Area on Sand Dune Country; or (d) On coastal land between 0-20 metres of the Coastal Marine Area on the Coastal Margin; are discretionary activities under LM R4.			
2	The area covered by Table LM 1(a) will be interpreted to be modified or stabilised Sand Dune Country which has a vegetative cover, sealed or compacted soil, and a previously modified or flattened topography. This excludes unmodified or natural dune systems.			
3	Any earthworks in the Coastal Margin between 0 to 20 horizontal metres as measured from the Coastal Marine Area on the edge of an estuary, harbour, or the open rocky coast are a discretionary activity under LM R4.			

- (a) There shall be no point source discharge of sediment contaminated stormwater to surface water from the activity.
- (b) The diffuse discharge of sediment contaminated stormwater to surface water from the activity shall not cause the following effects, except where a 20% AEP flood event is exceeded:
  - (i) The production of any conspicuous oil, grease films, scums or foams, or floatable or suspended solids.
  - (ii) Any conspicuous change in colour or visual clarity.
  - (iii) Any emission of objectionable odour.
  - (iv) The rendering of fresh water unsuitable for consumption by farm animals.
  - (v) Any more than minor adverse effects on aquatic life.

- (c) The activity shall not cause or induce erosion to land or to the bed or banks of any surface water body, where the erosion is persistent or requires active erosion control measures to bring it under control. Erosion includes:
  - (i) Instability of land or the banks of the surface water body.
  - (ii) Scour to the bed of the surface water body.
- (d) Fill from the earthwork activity shall not be deposited in overland or secondary flow paths that convey stormwater during rainfall events.
- (e) The activity shall not obstruct or divert the flow of water in such a manner that it results in damming, flooding or erosion.
- (f) The activity shall not disturb vegetation in a wetland; or change the water flow or quantity, or water quality in a wetland.
- (g) Where an activity is a cleanfill site, the activity shall comply with the Ministry for the Environment's Cleanfill Guidelines (2001)<sup>14</sup>.
- (h) The activity shall not disturb an identified contaminated site.
- (i) No machinery refuelling or fuel storage shall occur at a location where fuel can enter any water body.
- (j) No contaminants (including, but not limited to, oil, hydraulic fluids, petrol, diesel, other fuels, paint, solvents or anti-fouling paints), excluding sediment, shall be discharged to water, or discharged to land in circumstances where the contaminant may enter water, from the activity.
- (k) All practicable measures shall be taken to avoid vegetation, soil, slash or any other debris being deposited into a water body or placed in a position where it could readily enter or be carried into a water body.
- (l) The activity shall be staged, managed and completed, and the activity site closed-off, in a manner that ensures compliance with conditions (a) to (k) inclusive.
- (m) Any stormwater from outside the exposed area shall be kept separate from the earthworks area.
- (n) Where the earthworks are for stream crossing purposes, the activity shall also comply with the following conditions:
  - (i) The crossing shall be made at, or near to, right angles to the flow of the water in the river or stream, ensuring minimal roading in the Riparian Management Zone.
  - (ii) The area shall be stabilised as soon as practicable, but no later than 3 months from the end of the activity.
  - (iii) All practicable steps shall be taken to keep stormwater away from the stream crossing approach.

#### Advisory Note

- 1 Cleanfill sites that do not produce leachate are included in the definition of 'earthworks'.
- 2 In relation to condition (a), where there is a point source discharge of sediment contaminated stormwater to surface water from earthworks, then a resource consent is required under DW R8. Discharges to land soakage are permitted under DW R22.
- 3 In relation to condition (g), the disturbance of a contaminated site is addressed by DW R24 and DW R25.

<sup>36</sup> Ministry for the Environment, 2001. Guide to the Management of Cleanfills. Wellington, New Zealand.

- 4 Volume of earthworks is measured as the following:
  - (a) The volume as 'cut' where the material is taken away from the activity site; or
  - (b) The volume as 'fill' where the material is received from an area which is not the activity site; or
  - (c) The volume as 'cut to fill' within an activity site. This means that up to maximum permitted volume can be moved within one activity site (e.g. in relation to Table LM 1 (f), 5,000 m<sup>3</sup> can be moved within an activity site).
- 5 Best management practices shall be used to avoid or mitigate the discharge of sediment contaminated stormwater to water. In selecting the best management practices appropriate to the activity site, the following should be considered:
  - (a) The water quality classification of the receiving water body.
  - (b) Aquatic ecosystem values of the receiving water body.
  - (c) Soil type and slope.
  - (d) Proximity to surface water bodies.
- 6 This rule does not apply to plantation forestry activities as these are regulated under the Resource Management (National Environmental Standards for Plantation Forestry) Regulations 2017.

**Explanation/Intent of Rule**

To allow earthworks and quarries that are located in low risk areas. Earthworks and quarries that do not comply with all the required conditions require consent. Refer to Flow Diagram LM 1 to assist reading of this rule. In relation to condition (a), it is unlikely that discharges of sediment contaminated stormwater from earthworks will meet the requirements of DW R20 (permitted discharges of stormwater to surface water). Discharges from earthworks need to comply with DW R21 (permitted discharge of stormwater to land).

**LM R2 (Rule 1A) Controlled – Earthworks and Quarries**

The disturbance of land and soil as a result of earthworks or a quarry, where the activity is:

- 1 Not in the Riparian Management Zone;
- 2 Not in the Coastal Margin;
- 3 Not in the Erosion Hazard Zone;

and does not exceed the limits in Table LM 2 within any 12 month period is a controlled activity, subject to the following terms and conditions:

Table LM 2 Controlled Earthworks

	General Area	Land Slope	Controlled Limits
(a)	Ephemeral Flowpath not in the Erosion Hazard Zone	0 to 25°	Exposed area no greater than 1,000 m <sup>2</sup> and volume no greater than 500 m <sup>3</sup> per individual flowpath
(b)	Land not in the Riparian Management Zone, an ephemeral flowpath, the Coastal Margin, or the Erosion Hazard Zone	0 to 15°	2 hectare and 20,000 m <sup>3</sup>
		>15 to 25°	5,000 m <sup>2</sup> and 10,000 m <sup>3</sup>
		>25 to 35°	1,000 m <sup>2</sup> and 5,000 m <sup>3</sup>

- (a) There shall be no point source discharge of sediment contaminated stormwater to surface water from the activity.
- (b) The diffuse discharge of sediment contaminated stormwater to surface water from the activity shall not cause the following effects, except where a 20% AEP flood event is exceeded:
  - (i) The production of any conspicuous oil, grease films, scums or foams, or floatable or suspended solids.
  - (ii) Any conspicuous change in colour or visual clarity.
  - (iii) Any emission of objectionable odour.
  - (iv) The rendering of fresh water unsuitable for consumption by farm animals.
  - (v) Any more than minor adverse effects on aquatic life.
- (c) The activity shall not cause or induce erosion to land or to the bed or banks of any surface water body, where the erosion is persistent or requires active erosion control measures to bring it under control. Erosion includes:
  - (i) Instability of land or the banks of the surface water body.
  - (ii) Scour to the bed of the surface water body.
- (d) Fill from the earthwork activity shall not be deposited in overland or secondary flow paths that convey stormwater during rainfall events.
- (e) The activity shall not obstruct or divert the flow of water in such a manner that it results in damming, flooding or erosion.
- (f) The activity shall not disturb vegetation in a wetland; or change the water flow or quantity, or quality in a wetland.
- (g) Where an activity is a cleanfill site, the activity shall comply with the Ministry for the Environment's Cleanfill Guidelines (2001).
- (h) The activity shall not disturb an identified contaminated site.
- (i) No machinery refuelling or fuel storage shall occur at a location where fuel can enter any water body.
- (j) No contaminants (including, but not limited to, oil, hydraulic fluids, petrol, diesel, other fuels, paint, solvents or anti-fouling paints), excluding sediment, shall be discharged to water, or discharged to land in circumstances where the contaminant may enter water, from the activity.
- (k) All practicable measures shall be taken to avoid vegetation, soil, slash or any other debris being deposited into a water body or placed in a position where it could readily enter or be carried into a water body.

The Regional Council reserves its control over the following matters:

- (a) Measures to manage discharges of contaminants from the activity, including discharges of sediment contaminated stormwater.
- (b) Measures to avoid, remedy or mitigate erosion.
- (c) Timing and duration of the activity.
- (d) Effect on water flows, including overland or secondary flow paths that convey stormwater during rainfall events.
- (e) Measures to avoid, remedy or mitigate adverse effects on sites of significance to tangata whenua, indigenous biodiversity, and areas of significant indigenous vegetation and significant habitats of indigenous fauna.
- (f) Measures to protect and replace topsoil where the activity is re-contouring.

- (g) Information and monitoring requirements.
- (h) The administration charges under section 36 of the Act.

Notification

Applications for controlled activities under this Rule do not require the written approval of affected persons, and shall not be publicly notified, except where the Regional Council considers special circumstances exist in accordance with Section 94C of the Act.

**Advisory Note**

- 1 Volume of earthworks is measured as the following:
  - (a) The volume as 'cut' where the material is taken away from the activity site; or
  - (b) The volume as 'fill' where the material is received from an area which is not the activity site; or
  - (c) The volume as 'cut to fill' within an activity site. This means that up to maximum permitted volume can be moved within one activity site (e.g. in relation to Table LM 2(b) slope 0-15°, 20,000 m<sup>3</sup> can be moved within an activity site).
- 2 This rule does not apply to plantation forestry activities as these are regulated under the Resource Management (National Environmental Standards for Plantation Forestry) Regulations 2017.

**Explanation/Intent of Rule**

To control earthworks and quarries that present some risk to the environment, and where it is appropriate to assess the effects of the activity within the resource consent application process.

**LM R3 (Rule 1B) Restricted Discretionary – Earthworks and Quarries**

The disturbance of land and soil as a result of earthworks or a quarry, where the activity does not exceed limits in Table LM 3 within any 12 month period is a restricted discretionary activity.

Table LM 3 Restricted Discretionary Earthworks and Quarries

	General Area	Land Slope	Distance from Water body	Restricted Discretionary Limits
(a)	Riparian Management Zone – Rotorua Lakes	0 to 15°	Between 0-20 horizontal metres of the lake	500 m <sup>2</sup> and 500 m <sup>3</sup>
		>15 to 25°	Between 0-25 horizontal metres of the lake	
		>25 to 35°	Between 0-40 horizontal metres of the lake	
(b)	Riparian Management Zone – other lake not specified in (a), wetland or the bed of any river or stream, excluding streams and rivers with Water Supply water quality classification	0 to 7°	Between 0-5 horizontal metres of the water body	Earthworks excluding stream crossings – 500 m <sup>2</sup> and 500 m <sup>3</sup> Earthworks for stream crossing purposes – all earthworks not permitted by LM R1
		>7 to 15°	Between 0-10 horizontal metres of the water body	
		>15 to 25°	Between 0-20 horizontal metres of the water body	
		>25 to 35°	Between 0-25 horizontal metres of the water body	



	General Area	Land Slope	Distance from Water body	Restricted Discretionary Limits
(c)	Riparian Management Zone – streams and rivers with Water Supply water quality classification	0 to 15°	Between 0-20 horizontal metres from the edge of the water body	Earthworks excluding stream crossings – 500 m <sup>2</sup> and 500 m <sup>3</sup> . Earthworks for stream crossing purposes – all earthworks not permitted by LM R1.
		>15 to 25°	Between 0-25 horizontal metres from the edge of the water body	
		>25 to 35°	Between 0-40 horizontal metres from the edge of the water body	
(d)	Ephemeral Flowpath not in the Erosion Hazard Zone	No greater than 35°	N/A	Any activity not otherwise permitted by LM R1 or controlled by LM R2.

The Regional Council restricts its discretion to the following matters:

- (a) Measures to manage discharges of contaminants from the activity, including discharges of sediment contaminated stormwater.
- (b) Measures to avoid, remedy or mitigate erosion.
- (c) Timing and duration of the activity.
- (d) Effect on water flows, including overland or secondary flow paths that convey stormwater during rainfall events.
- (e) Measures to avoid, remedy or mitigate adverse effects on: natural character of the coastal environment, wetlands, lakes, rivers and their margins; amenity values; legal public access; sites of significance to tangata whenua; aquatic ecosystems; indigenous biodiversity; and areas of significant indigenous vegetation and significant habitats of indigenous fauna.
- (f) Measures to protect and replace topsoil where the activity is re-contouring.
- (g) Information and monitoring requirements.
- (h) The administration charges under section 36 of the Act.

#### Advisory Note

- 1 This rule does not apply to plantation forestry activities as these are regulated under the Resource Management (National Environmental Standards for Plantation Forestry) Regulations 2017.

#### Explanation/Intent of Rule

To control earthworks and quarries that present a higher risk to the environment, and where it is appropriate to assess specific adverse effects of the activity on the environment within the resource consent application process.

#### LM R4 (Rule 1C)

#### Discretionary – Earthworks and Quarries

The disturbance of land and soil as a result of earthworks or a quarry, where the activity:

- 1 Is not permitted by a rule in this regional plan, and

- 2 Is not a controlled activity under a rule in this regional plan, and
  - 3 Is not a restricted discretionary activity under a rule in this regional plan,
- Is a discretionary activity.

#### **Assessment Criteria**

When assessing resource consent applications under this rule, the Regional Council will have particular regard to, but not be limited to, the following provisions:

*Objective* KT O44, KT O5, LM O1, LM O2, LM O3, LM O5, DW O9, DW O10, DW O12

*Policy* KT P5, KT P14, KT P15, KT P17, KT P18, KT P20, IM P1, DW P15, DW P18

*Method* KT M12, KT M19, KT M20, IM M10, IM M12, DW M28

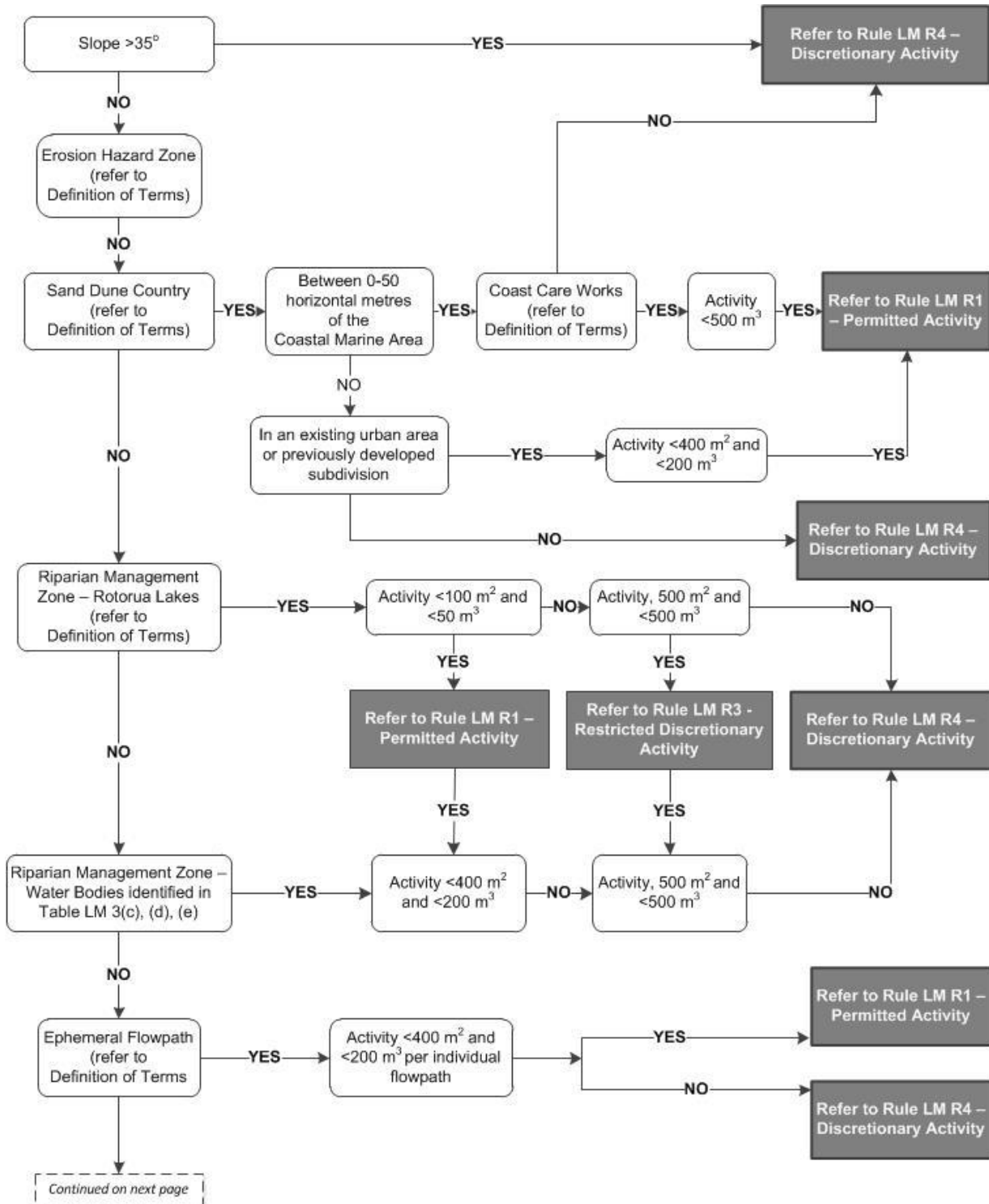
#### **Advisory Note**

- 1 This rule does not apply to plantation forestry activities as these are regulated under the Resource Management (National Environmental Standards for Plantation Forestry) Regulations 2017.

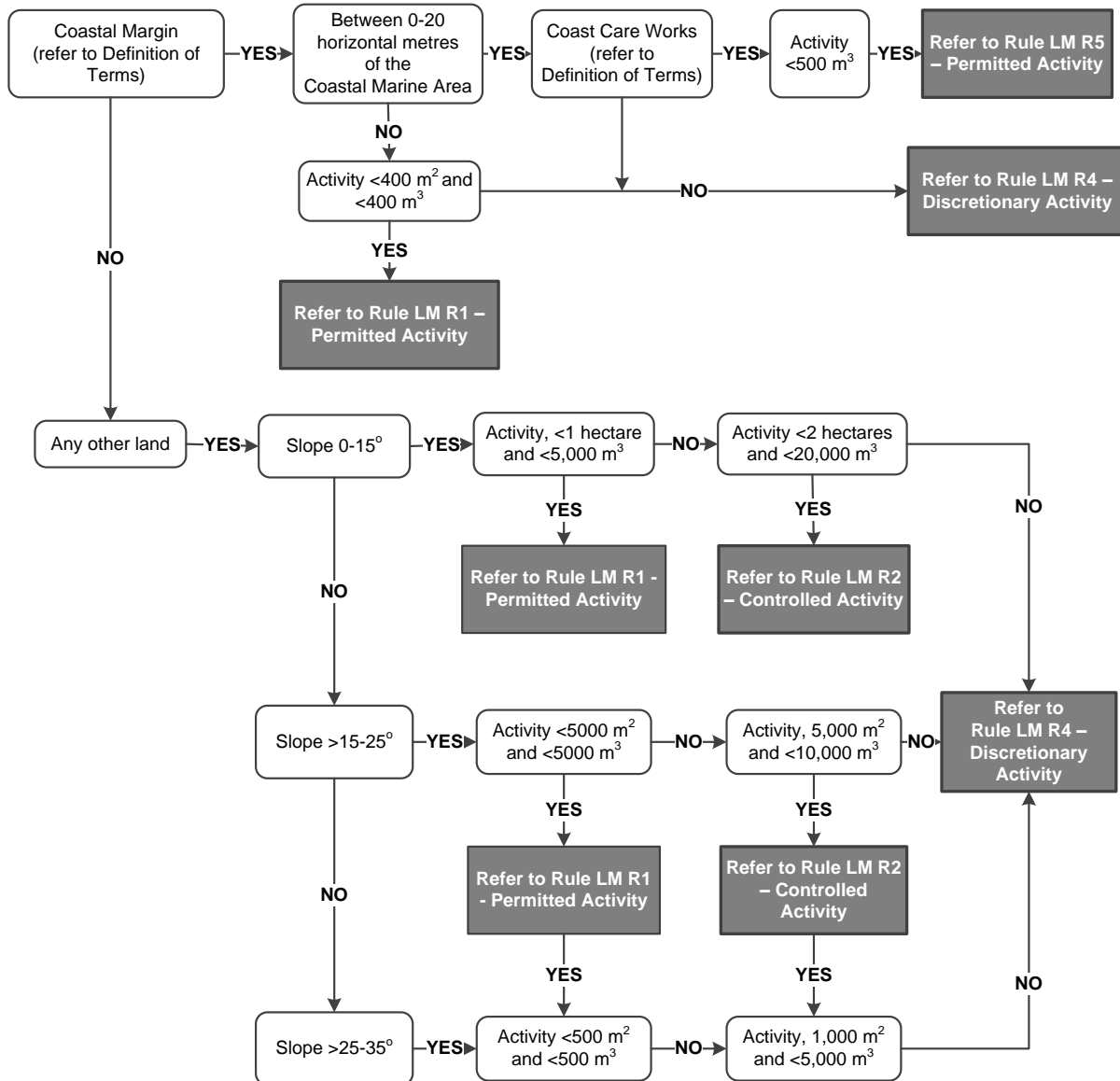
#### **Explanation/Intent of Rule**

To control earthworks and quarries that present a high risk to the environment, and where it is appropriate to assess the effects of the activity within the resource consent application process.

### Flow Diagram LM 1 – Earthworks and Quarries



**Flow Diagram LM 1 – Earthworks and Quarries (cont)**



**Advisory Note**

- 1 This flow diagram is to assist working out which rules apply but does not constitute a part of the rules. If there is any inconsistency between the flow diagram and the rules in the regional plan it refers to, the criteria in the rules prevail.

*Coast Care Works*

**LM R5 (Rule 1D)**

**Permitted – Earthworks and Vegetation Disturbance on Coastal Margins and Sand Dune Country for Coast Care Works**

The disturbance of land and soil as a result of earthworks or vegetation disturbance carried out as part of “Coast Care” works that have been formally approved by the Regional Council, where:

- 1 The earthworks are on land in the Coastal Margin or Sand Dune Country, and
- 2 The earthworks and vegetation disturbance are part of beach scraping (sand relocation) works and associated maintenance works, and

- 3 The volume of earthworks does not exceed 500 m<sup>3</sup> for any one activity site within a 12 month period, and
- 4 The activity is not carried out seaward of the line of Mean High Water Springs, or the Coastal Marine Area, or involve any works in the bed of a stream or river,

Is a permitted activity subject to the following conditions:

- (a) Notification of the activity shall be given to the Regional Council, the Department of Conservation, and the relevant district council, a minimum of 10 working days before the start of any works.
- (b) Any local sand from the beach shall only be moved from the area above the line of mean high water springs, and the works shall not weaken the protective function of any dune system.
- (c) Any sand brought in from an external source shall be free of foreign materials or plant pests, and shall be of similar characteristics (such as grain size and colour) to the existing sand on the dune at the activity site.
- (d) The relocated sand shall be placed to have a seaward slope of not greater than 10 degrees, and shall be planted with appropriate indigenous foredune species within 4 weeks of the completion of the earthworks.
- (e) The activity shall not cause or induce erosion to land or to the bed or banks of any surface water body, where the erosion is persistent or requires active erosion control measures to bring it under control. Erosion includes:
  - (i) Instability of land or the banks of the surface water body.
  - (ii) Scour to the bed of the surface water body.
  - (iii) Damage to the margins or banks of the surface water body.
- (f) The activity shall not damage or destroy a wetland.
- (g) All practicable measures shall be taken to avoid vegetation, soil, slash or any other debris being deposited into a water body or placed in a position where it could readily enter or be carried into a water body (including coastal water).
- (h) No machinery refuelling or fuel storage shall occur at a location where fuel can enter any water body (including coastal water).
- (i) No contaminants (including, but not limited to, oil, hydraulic fluids, petrol, diesel, other fuels, paint, solvents or anti-fouling paints), shall be discharged to water, or discharged to land in circumstances where the contaminant may enter water, from the activity.
- (j) No works shall be carried out adjacent to the tidal reaches of rivers and streams between 1 March and 31 May.

#### **Advisory Note**

- 1 Earthworks and vegetation disturbance in the coastal environment may also be controlled by provisions in district plans. Compliance with this Rule does not remove the need to also comply with any provisions in a district plan.
- 2 The rules in this regional plan do not authorise the modification or disturbance of any archaeological or historic sites within the area of the activity. Should any artefacts, bones or any other sites of archaeological or cultural significance be discovered within the area affected by the activity, written authorisation should be obtained from the Heritage New Zealand Pouhere Taonga before any damage, modification or destruction is undertaken.

- 3 The Bay of Plenty Regional Coastal Environment Plan contains policies on the protection of significant sites identified in that plan. In relation to this policy and activities addressed in this rule, any “Coast Care” works will avoid adverse effects on sites identified in the Third Schedule, Fourth Schedule, Sixth Schedule, and Seventh Schedule of the Bay of Plenty Regional Coastal Environment Plan.
- 4 This rule does not apply to plantation forestry activities as these are regulated under the Resource Management (National Environmental Standards for Plantation Forestry) Regulations 2017.

#### **Explanation/Intent of Rule**

To allow for Coast Care works necessary for the enhancement of coastal dune systems, while ensuring any adverse effects from the activity are avoided, remedied or mitigated.

#### **LM R6 (Rule 1E)**

#### **Controlled – Earthworks and Vegetation Disturbance on Coastal Margins and Sand Dune Country for Coast Care Works**

The disturbance of land and soil as a result of earthworks or vegetation disturbance carried out as part of “Coast Care” works that have been formally approved by the Regional Council, where the activity is not permitted by LM R5, is a controlled activity.

The Regional Council reserves its control over the following matters:

- (a) Measures to manage discharges of contaminants from the activity, including discharges of sediment contaminated stormwater.
- (b) Measures to avoid, remedy or mitigate erosion.
- (c) Timing and duration of the activity.
- (d) Measures to avoid, remedy or mitigate effects on the protective function of dune systems, natural beach processes, and coastal dynamics.
- (e) Measures to avoid, remedy or mitigate adverse effects on sites of significance to tangata whenua.
- (f) Measures to avoid, remedy or mitigate adverse effects on the natural character of the coastal environment, indigenous biodiversity, areas of significant indigenous vegetation and significant habitats of indigenous fauna.
- (g) Measures to comply with relevant provisions in the Bay of Plenty Regional Coastal Environment Plan.
- (h) Information and monitoring requirements.
- (i) The administration charges under section 36 of the Act.

#### **Notification**

Applications for controlled activities under this Rule do not require the written approval of affected persons, and shall not be publicly notified, except where the Regional Council considers special circumstances exist in accordance with Section 94C of the Act.

#### **Explanation/Intent of Rule**

To allow the Regional Council to assess the effects of large-scale Coast Care works to ensure any adverse effects from the activity are avoided, remedied or mitigated.

## *Land and Soil Disturbance by Vegetation Clearance*

### **Advisory Note**

- 1 Indigenous vegetation may be classified as significant by the relevant city or district council and protected under its district plan. Compliance with the provisions of this regional plan does not remove the need to also comply with district plan provisions.
- 2 Where vegetation clearance does not result in the disturbance of land or soil, the vegetation clearance activity is not controlled by this regional plan.
- 3 This rule does not apply to plantation forestry activities as these are regulated under the Resource Management (National Environmental Standards for Plantation Forestry) Regulations 2017.

### **LM R7 (Rule 2)**

#### **Permitted – Land and Soil Disturbance by Vegetation Clearance**

The disturbance of land and soil resulting from vegetation clearance, where:

- 1 The activity is not:
  - (a) On land with a dominant slope greater than 35 degrees; or
  - (b) In the Erosion Hazard Zone; or
  - (c) In the Coastal Margin;

And either (2) or (3):

- 2 The activity complies with 4, 5, 6, 7 or 8 below.
- 3 The activity is on any other land not covered by 2 above.

Is a permitted activity subject to compliance with conditions (a) to (l) inclusive below.

- 4 The activity is vegetation clearance in an ephemeral flowpath (refer to definition), and either (a) or (b):
  - (a) Is the clearance of vegetation that is causing erosion, or is blocking water flow; or
  - (b) Is the removal of exotic weed tree species, including, but not limited to, willows and wilding pines.

Or

- 5 The activity is the harvesting of existing exotic vegetation species where the plants were planted as of 8 July 2008, and the activity is in the Riparian Management Zone, with a dominant slope no greater than 25 degrees in relation to Table LM 4(a) to (c), or with a dominant slope no greater than 35 degrees in relation to Table LM 4(d), and the area specified in Table LM 4 is replanted in indigenous vegetation or allowed to re-vegetate for retirement purposes;

Table LM 4 Riparian Retirement Distance

	General Area	Land Slope	Riparian Retirement Distance
(a)	Riparian Management Zone – Rotorua Lakes	0 to 25°	Between 0-10 horizontal metres from the edge of the lake
(b)	Riparian Management Zone – streams and rivers listed in Schedule 1	0 to 25°	Between 0-10 horizontal metres from the edge of the river or stream
(c)	Riparian Management Zone – streams and rivers classified as Water Supply in the Water Quality Classification Map	0 to 25°	Between 0-10 horizontal metres from the edge of the river or stream
(d)	Riparian Management Zone - All streams, rivers not other addressed by (b) or (c); wetlands; and lakes not specified in (a)	0 to 25°	Between 0-5 horizontal metres from the edge of the water body
		25-35°	Between 0-10 horizontal metres from the edge of the water body

Or

- 6 The activity is in the Riparian Management Zone with a dominant slope no greater than 25 degrees in relation to Table LM 4(a) to (c), or with a dominant slope no greater than 35 degrees in relation to Table LM 4(d), and the riparian area specified in Table LM 4 has previously been retired and is retained.

Or

- 7 The activity is associated with stream crossings in the Riparian Management Zone where the dominant slope is no greater than 35 degrees, and the area of vegetation clearance on the activity site is no greater than that permitted for stream crossings in LM R1 Table LM 1 within any 12 month period.

Or

- 8 The activity is in the Riparian Management Zone with a dominant slope no greater than 35 degrees, and the area of vegetation clearance on the activity site is no greater than that specified in Table LM 5, within any 5 year period.

Table LM 5 Permitted Vegetation Clearance in the Riparian Management Zone

	General Area	Land Slope	Riparian Management Zone distance	Permitted Vegetation Clearance – exposed area
(a)	Riparian Management Zone – Rotorua Lakes	0 to 15°	Between 0-10 horizontal metres from the edge of the lake	Exposed area no greater than 100 m <sup>2</sup>
		>15 to 25°	Between 0-20 horizontal metres from the edge of the lake	
		25 to 35°	Between 0-25 horizontal metres from the edge of the lake	
(b)	Riparian Management Zone - other lake not specified in (b), wetland	0 to 7°	Between 0-5 horizontal metres from the edge of the water body	Exposed area no greater than 400 m <sup>2</sup>



	General Area	Land Slope	Riparian Management Zone distance	Permitted Vegetation Clearance – exposed area
	or the bed of any river or stream, excluding streams and rivers with Water Supply water quality classification and Schedule 1 streams	>7 to 15°	Between 0-5 horizontal metres from the edge of the water body	
		>15 to 25°	Between 0-20 horizontal metres from the edge of the water body	
		25 to 35°	Between 0-25 horizontal metres from the edge of the water body	
(c)	Riparian Management Zone – streams and rivers with Water Supply water quality classification	0 to 15°	Between 0-10 horizontal metres from the edge of the water body	Exposed area no greater than 400 m <sup>2</sup>
		>15 to 25°	Between 0-20 horizontal metres from the edge of the water body	
		25 to 35°	Between 0-25 horizontal metres from the edge of the water body	
(d)	Riparian Management Zone – Schedule 1 streams	0 to 7°	Between 0-5 horizontal metres from the edge of the water body	Exposed area no greater than 400 m <sup>2</sup>
		>7 to 15°	Between 0-5 horizontal metres from the edge of the water body	
		>15 to 25°	Between 0-20 horizontal metres from the edge of the water body	
		25 to 35°	Between 0-25 horizontal metres from the edge of the water body	

## Permitted activity conditions for LM R7:

- (a) There shall be no point source discharge of sediment contaminated stormwater to surface water from the activity.
- (b) The diffuse discharge of sediment contaminated stormwater to surface water from the activity shall not cause the following effects, except where a 20% AEP flood event is exceeded:
  - (i) The production of any conspicuous oil, grease films, scums or foams, or floatable or suspended solids.
  - (ii) Any conspicuous change in colour or visual clarity.
  - (iii) Any emission of objectionable odour.
  - (iv) The rendering of fresh water unsuitable for consumption by farm animals.
  - (v) No more than minor adverse effects on aquatic life.
- (c) The activity shall not cause or induce erosion to land or to the bed or banks of any surface water body, where the erosion is persistent or requires active erosion control measures to bring it under control. Erosion includes:
  - (i) Instability of land or the banks of the surface water body.
  - (ii) Scour to the bed of the surface water body.

- (d) The activity shall not disturb vegetation in a wetland; or change the water flow of quantity, or water quality in a wetland.
- (e) The activity shall not disturb an identified contaminated land.
- (f) The activity shall not obstruct or divert the flow of water in such a manner that it results in damming, flooding or erosion.
- (g) All practicable measures shall be taken to avoid vegetation, soil, slash or any other debris being deposited into a water body or placed in a position where it could readily enter or be carried into a water body.
- (h) All vegetation slash shall be managed to avoid accumulation to levels that could cause erosion or instability of land, especially around skid sites or landings.
- (i) Vegetation or debris resulting from the activity shall be removed from all permanently flowing streams where it will divert or dam the watercourse, obstruct fish passage or destroy the aquatic habitats of indigenous species or trout. The vegetation or debris shall be removed in a manner that minimises the damage or disturbance to the banks of surface water bodies.
- (j) No machinery refuelling or fuel storage shall occur at a location where fuel can enter any water body.
- (k) No contaminants (including, but not limited to, oil, hydraulic fluids, petrol, diesel, other fuels, paint, solvents or anti-fouling paints), excluding sediment, shall be discharged to water, or discharged to land in circumstances where the contaminant may enter water, from the activity.
- (l) Where the activity is in an ephemeral flowpath, vegetation shall not be removed from the site by hauling along the ephemeral flowpath. This does not apply to aerial hauling.

#### Advisory Note

- 1 For the avoidance of doubt, vegetation clearance on slopes 0-35 degrees; and not in the Erosion Hazard Zone, Coastal Margin, Riparian Management Zone, or an ephemeral flowpath; is a permitted activity.
- 2 This rule does not apply to plantation forestry activities as these are regulated under the Resource Management (National Environmental Standards for Plantation Forestry) Regulations 2017.

#### Explanation/Intent of Rule

To allow vegetation disturbance in low risk areas, and where there is only minor discharges of sediment contaminated stormwater off-site. This rule does not restrict the trimming of vegetation, or other vegetation disturbance activities that do not disturb land. Such activities are not addressed by this regional plan. Refer to Flow Diagram LM 2 to assist reading of this rule.

#### LM R8 (Rule 2A)

#### Controlled - Land and Soil Disturbance by Vegetation Clearance

The disturbance of land and soil resulting from vegetation clearance, where the activity is:

- 1 In an Ephemeral flowpath not in the Erosion Hazard Zone, where the dominant slope is no greater than 35 degrees, and where the activity does not otherwise comply with LM R7;

Or

- 2 The activity is the harvesting of existing exotic vegetation species where the plants were planted as of 1 December 2008, and the activity is in the Coastal Margin with a dominant slope no greater than 35 degrees;

Is a controlled activity.

The Regional Council reserves its control over the following matters:

- (a) Measures to manage discharges of contaminants from the activity, including discharges of sediment contaminated stormwater.
- (b) Measures to avoid, remedy or mitigate erosion.
- (c) Timing and duration of the activity.
- (d) Effect on water flows, including overland or secondary flow paths that convey stormwater during rainfall events.
- (e) Measures to avoid, remedy or mitigate adverse effects on sites of significance to tangata whenua, and significant habitats of indigenous flora and fauna, and significant indigenous vegetation (including geothermal vegetation).
- (f) Measures to avoid, remedy or mitigate adverse effects on wetlands, and aquatic habitats.
- (g) Measures to avoid, remedy or mitigate adverse effects on coastal hazards, natural character and amenity values of the Coastal Margin.
- (h) Information and monitoring requirements.

#### **Advisory Note**

- 1 The location of replanting boundaries in the Coastal Margin of the activity site may be considered in relation to (a) to (g) inclusive.
- 2 This rule does not apply to plantation forestry activities as these are regulated under the Resource Management (National Environmental Standards for Plantation Forestry) Regulations 2017.

#### **Explanation/Intent of Rule**

To control the disturbance of land resulting from vegetation disturbance that presents some risk to the environment, and where it is appropriate to assess the effects of the activity within the resource consent application process.

#### **LM R9 (Rule 2B)**

#### **Restricted Discretionary – Land and Soil Disturbance by Vegetation Clearance**

The disturbance of land and soil resulting from vegetation clearance, where the activity is:

- 1 On land not in the Riparian Management Zone, Erosion Hazard Zone, or Coastal Margin (refer to definitions), and the dominant slope is greater than 35 degrees and the site is being replanted in tree vegetation;

Or

- 2 The harvesting of existing exotic vegetation species where the plants were planted as of 1 December 2008, on land in the Riparian Management Zone adjacent to either the Rotorua Lakes, streams and rivers listed in Schedule 1; or streams and rivers with Water Supply water quality classification; and where the dominant slope is between 25 and 35 degrees, and a riparian area is replanted or allowed to revegetate for retirement purposes in indigenous riparian vegetation;

Or

- 3 On land in the Riparian Management Zone on slopes no greater than 35 degrees, where the activity does not otherwise comply with LM R7;

Or

- 4 The activity would otherwise be permitted by LM R7, except for non-compliance with condition (b).

Is a restricted discretionary activity.

The Regional Council restricts its discretion to the following matters:

- (a) Measures to manage discharges of contaminants from the activity, including discharges of sediment contaminated stormwater.
- (b) Measures to avoid, remedy or mitigate erosion.
- (c) Timing and duration of the activity.
- (d) Effect on water flows, including overland or secondary flowpaths that convey stormwater during rainfall events.
- (e) Measures to avoid, remedy or mitigate adverse effects on sites of significance to tangata whenua, and significant habitats of indigenous flora and fauna, and significant indigenous vegetation (including geothermal vegetation).
- (f) Measures to avoid, remedy or mitigate adverse effects on wetlands, and aquatic habitats.
- (g) Information and monitoring requirements.

#### **Advisory Note**

- 1 The location or replanting boundaries in the riparian margin of the activity site may be considered in relation to (a) to (f) inclusive.
- 2 This rule does not apply to plantation forestry activities as these are regulated under the Resource Management (National Environmental Standards for Plantation Forestry) Regulations 2017.

#### **Explanation/Intent of Rule**

To control the disturbance of land resulting from vegetation disturbance that presents a higher risk to the environment, and where it is appropriate to assess the effects of the activity within the resource consent application process.

#### **LM R10 (Rule 2C) Discretionary – Land and Soil Disturbance by Vegetation Clearance**

The disturbance of land and soil resulting from vegetation clearance, where the activity:

- 1 Is not permitted by a rule in this regional plan, and

- 2 Is not a controlled activity under a rule in this regional plan, and
  - 3 Is not a restricted discretionary activity under a rule in this regional plan;
- Is a discretionary activity.

**Advisory Note**

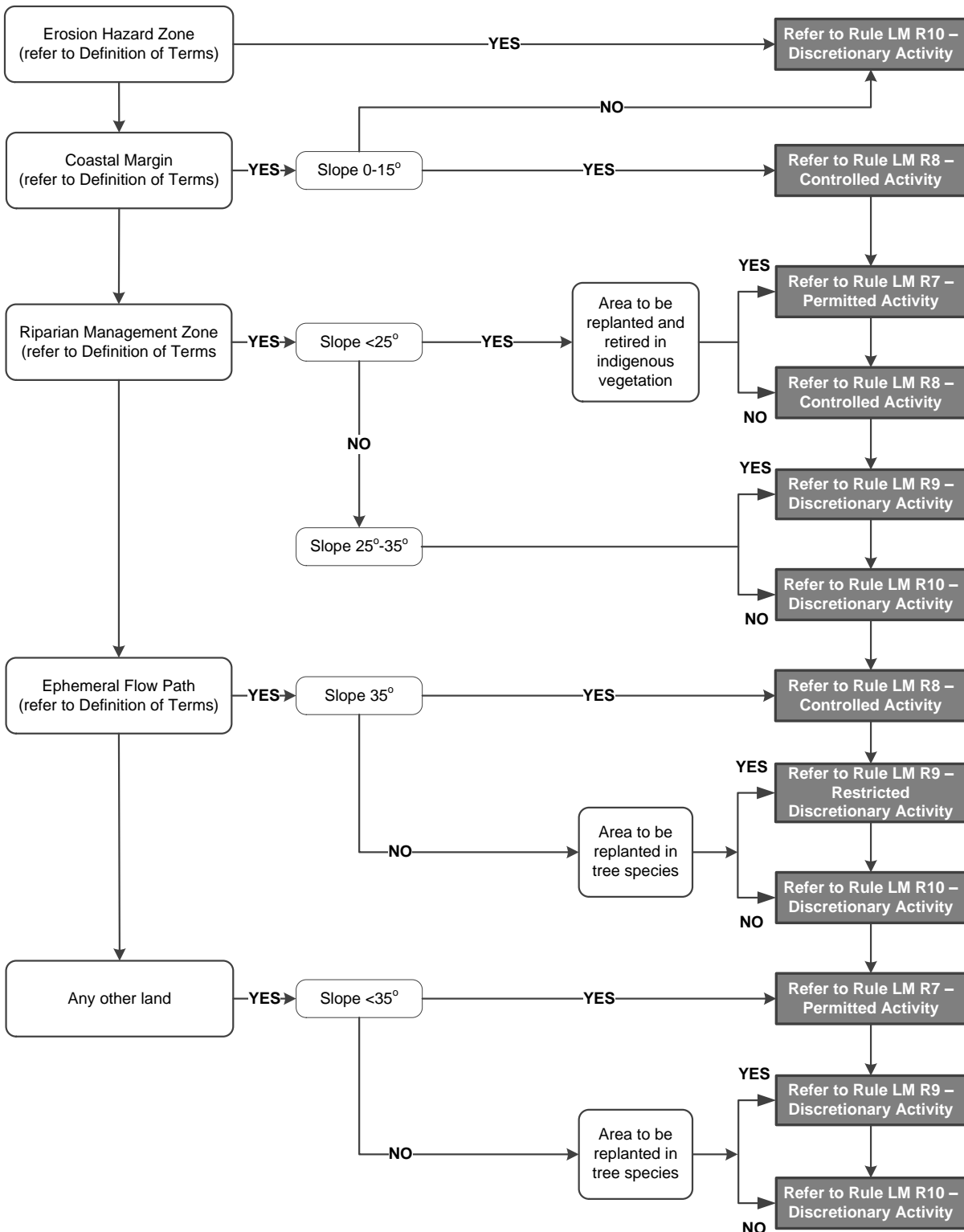
- 1 This rule does not apply to plantation forestry activities as these are regulated under the Resource Management (National Environmental Standards for Plantation Forestry) Regulations 2017.

**Assessment Criteria**

When assessing resource consent applications under this rule, the Regional Council will have particular regard to, but not be limited to, the following provisions:

*Objective*    *KT O4, KT O5, LM O1, LM O2, LM O3, LM O5, DW O9, DW O124*  
*Policy*        *KT P5, KT P14, KT P15, KT P17, KT P18, KT P20, IM P21, DW P15, DW P18*  
*Method*       *KT M13, KT M20, KT M21, IM M10, IM M12, DW M28*

### Flow Diagram LM 2 – Vegetation Clearance



#### Advisory Note

- 1 This flow diagram is to assist working out which rules apply but does not constitute a part of the rules. If there is any inconsistency between the flow diagram and the rules in the regional plan it refers to, the criteria in the rules prevail.

### *Forest Harvesting and Forestry Earthworks*

LM R11 (Rule 3) Removed to give effect to the National Environmental Standards for Plantation Forestry Regulations 2017.

LM R12 (Rule 3A) Removed to give effect to the National Environmental Standards for Plantation Forestry Regulations 2017.

### *Clearance of Vegetation by Burning*

#### **LM R13 (Rule 4) Permitted – Clearance of Vegetation by Burning**

The disturbance of land and soil resulting from the clearance of vegetation by burning is a permitted activity subject to the following conditions:

- (a) The activity shall not exceed the permitted limits specified in Table LM 7.
- (b) The activity shall be undertaken using best management practices to ensure that burns are of low intensity and avoid loss of soil structure and nutrients.
- (c) There shall be no point source discharge of sediment contaminated stormwater to surface water from the activity.
- (d) The diffuse discharge of sediment contaminated stormwater to surface water from the activity shall not cause the following effects, except where a 20% AEP flood event is exceeded:
  - (i) The production of any conspicuous oil, grease films, scums or foams, or floatable or suspended solids.
  - (ii) Any conspicuous change in colour or visual clarity.
  - (iii) Any emission of objectionable odour.
  - (iv) The rendering of fresh water unsuitable for consumption by farm animals.
  - (v) Any more than minor adverse effects on aquatic life.
- (e) The activity shall not cause or induce erosion to land or the bed or banks of any surface water body, where the erosion is persistent or requires active erosion control measures to bring it under control. Erosion includes:
  - (i) Instability of land or the banks of the surface water body.
  - (ii) Scour to the bed of the surface water body.
- (f) The activity shall not disturb vegetation in a wetland; or change the water flow or quantity, or quality in a wetland.
- (g) All practicable measures shall be taken to avoid vegetation, soil, slash or any other debris being deposited into a water body or placed in a position where it could readily enter or be carried into a water body.
- (h) No machinery refuelling or fuel storage shall occur at a location where fuel can enter any water body.
- (i) No contaminants (including, but not limited to, oil, hydraulic fluids, petrol, diesel, other fuels, paint, solvents or anti-fouling paints), shall be discharged to water, or discharged to land in circumstances where the contaminant may enter water, from the activity.

Table LM 7 Permitted Limits for Clearance of Vegetation by Burning

	General Area	Location	Land Slope	Distance from surface water body as measured from the edge of the surface water body	Permitted Burn Area
(a)	In the upper Rangitaiki River catchment above the confluence of the Otangimoana Stream and Rangitaiki River, including the Otamatea River catchment.	(i) On the margins of erosion susceptible permanent streams and rivers, or (ii) In the beds and margins of ephemeral streams and rivers, or (iii) On steep terrace edges, as shown in Regional Council Plan Series M1009 <sup>1</sup> .	Any slope	N/A	All discretionary
(b)	Coastal margin	Refer to Definition of Terms	Any slope	0-40 metres from Coastal Marine Area	All discretionary
(c)	Sand Dune Country	Refer to Definition of Terms	Any slope	N/A	All discretionary
(d)	Riparian Management Zone – Rotorua Lakes	Rotorua Lakes (refer to Refer to Definition of Terms)	0 to 15°	Between 0-20 horizontal metres of the lake	All discretionary
			>15 to 25°	Between 0-25 horizontal metres of the lake	
			>25 to 35°	Between 0-40 horizontal metres of the lake	
			>35°	Between 0-40 horizontal metres of the lake	
(e)	Riparian Management Zone – excluding (d)	All streams, rivers, wetlands, and lakes not specified in (d)	0 to 7°	Between 0-5 horizontal metres of the water body	
			> 7 to 15°	Between 0-10 horizontal metres of the water body	
			> 15 to 25°	Between 0-20 horizontal metres of the water body	
			> 25 to 35°	Between 0-25 horizontal metres of the water body	
			> 35°	Between 0-40 horizontal metres of the water body	



	General Area	Location	Land Slope	Distance from surface water body as measured from the edge of the surface water body	Permitted Burn Area
(f)	Rangitaiki catchment southward on State Highway 38, excluding the area specified in (a), and carried out within the period of 1 March to 30 May in any year		0 to 7°	Greater than 50 metres from a surface water body	No greater than 50 hectares of logging slash from untended stands of minor species <sup>2</sup>
			> 7 to 15°	N/A	
(g)	Not in (a) to (f)		0 to 15°	N/A	No greater than 5 hectares
			16 to 40°	N/A	Isolated burns no greater than 50 m <sup>2</sup>
<b>Notes:</b>					
1 The photomap plan series M1009 prepared by the Regional Council at a scale of 1:25,000 shows the location of the beds and margins of the relevant land areas and ephemeral flowpaths that are covered by definition points (a)(i) to (iii) in Table LM 7. Copies of these maps are available from or may be viewed at any Regional Council office.					
2 Minor species include all other exotic pine species except for the predominant species of <i>Pinus radiata</i> and Douglas fir. The main plantings of 'minor' species are of <i>P. contorta</i> , <i>P. nigra</i> and small areas of southern pines (i.e. <i>P. ellioti</i> and <i>P. carabea</i> etc.).					

#### Advisory Note

- 1 Refer to Flow Diagram LM 4 to assist reading of this rule.
- 2 Restrictions on burning are also contained in the Operative Bay of Plenty Regional Air Plan.
- 3 The burning of vegetation may also require a permit from the relevant fire control authority; and a consent from the relevant district council.
- 4 This rule does not apply to plantation forestry activities as these are regulated under the Resource Management (National Environmental Standards for Plantation Forestry) Regulations 2017.

#### Explanation/Intent of Rule

To allow small-scale, low risk clearance of vegetation by burning subject to the general permitted activity conditions that avoid or mitigate adverse effects on soil and water resources.

#### LM R14 (Rule 4A) Discretionary – Clearance of Vegetation by Burning

The disturbance of land and soil resulting from the clearance of vegetation by burning that is not a permitted activity in accordance with LM R13 is a discretionary activity.

### Advisory Note

- 1 This rule does not apply to plantation forestry activities as these are regulated under the Resource Management (National Environmental Standards for Plantation Forestry) Regulations 2017.

### Explanation/Intent of Rule

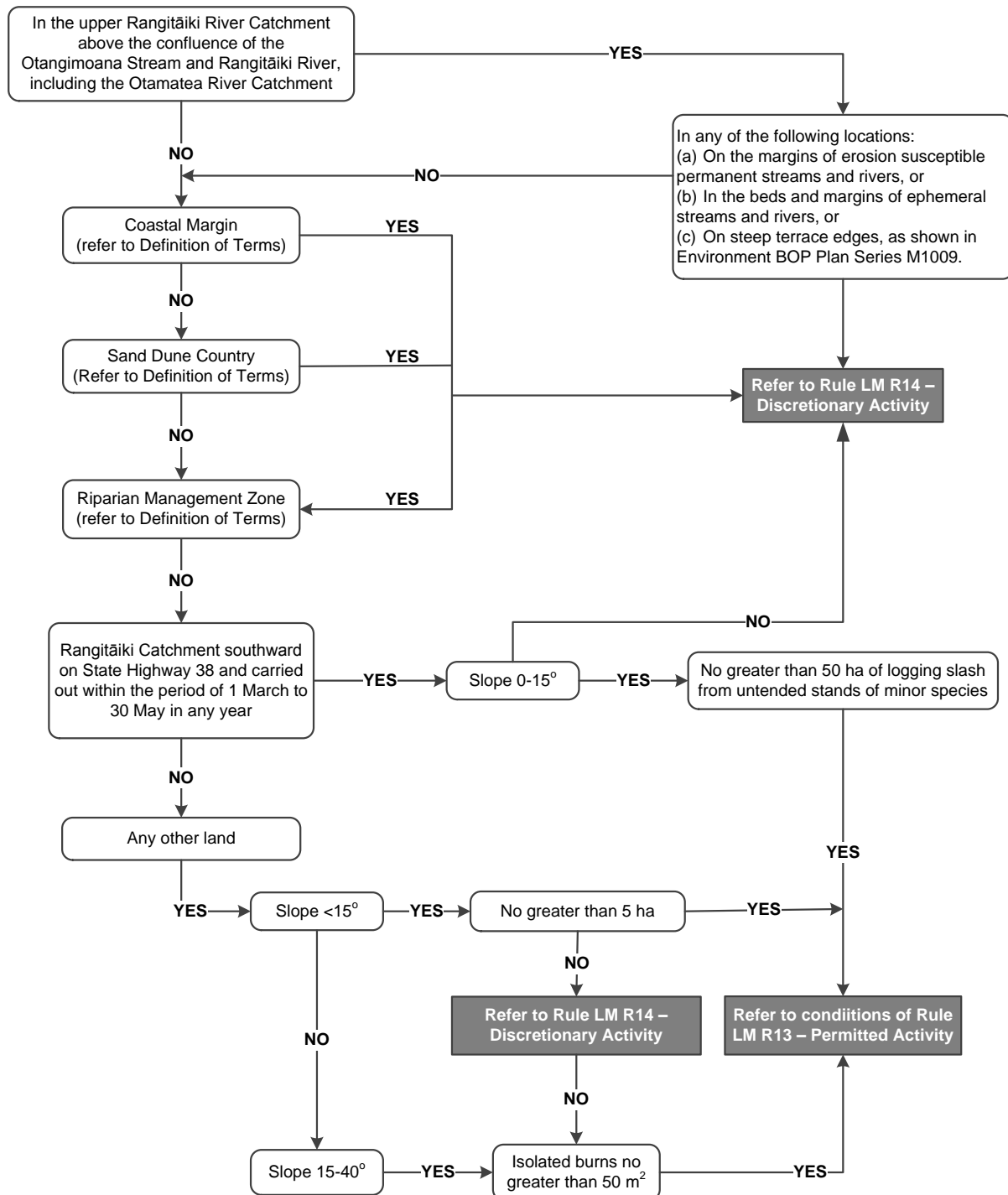
To allow the Regional Council to assess the adverse environmental effects of land disturbance activities on a case by case basis, where the activity is likely to cause more than minor effects, including activities in high risk locations. Refer to Flow Diagram LM 4 to assist reading of this rule.

### Assessment Criteria

When assessing resource consent applications under this rule, the Regional Council will have particular regard to, but not be limited to, the following provisions:

*Objective*    *KT 04, KT 05, LM 01, LM 02, LM 03, LM 05, DW 09, DW 012*  
*Policy*        *KT P5, KT P14, KT P15, KT P17, KT P18, KT P20, IM P1, DW*  
                    *P15, DW P18*  
*Method*       *KT M13, KT M20, KT M21, IM M10, IM M12, DW M28*

### Flow Diagram LM 4 – Clearance of Vegetation by Burning



**Advisory Note**

- 1 This flow diagram is to assist working out which rules apply but does not constitute a part of the rules. If there is any inconsistency between the flow diagram and the rules in the regional plan it refers to, the criteria in the rules prevail.

## Cultivation

### LM R15 (Rule 5) Permitted – Cultivation

The disturbance of land and soil resulting from cultivation is a permitted activity subject to the following conditions:

- (a) The activity shall not be carried out in any of the areas in Table LM 8:

Table LM 8 Locations Where Cultivation is Not Permitted (Discretionary activity under Rule LM R16)

	General Area	Location	Land Slope	Distance from surface water body as measured from the edge of the surface water body
(a)	On any land where the dominant slope is equal to or greater than 25 degrees	Land not otherwise specified in (b) to (e).	Greater than 25 degrees.	N/A
(b)	Erosion Hazard Zone	Refer to Definition of Terms	Refer to Definition of Terms	N/A
(c)	Coastal Margin	Land on the edge of an estuary, harbour, or the open rocky coast.	Greater than 25 degrees.	Between 0-10 metres horizontal distance from the Coastal Marine Area
(d)	Riparian Management Zone – Rotorua Lakes	Rotorua Lakes (refer to definition)	0 to 7°	Between 0-5 horizontal metres of the lake
			>7 to 15°	Between 0-10 horizontal metres of the lake
			>15 to 25°	Between 0-10 horizontal metres of the lake
(e)	Riparian Management Zone – Schedule 1 streams and rivers	Streams and rivers listed in Schedule 1	>0 to 7°	Between 0-5 horizontal metres of the water body
			>7 to 15°	Between 0-5 horizontal metres of the water body
			>15 to 25°	Between 0-10 horizontal metres of the water body
(f)	Riparian Management Zone - other lakes not specified in (d), wetland, stream or river not listed in Schedule 1	All streams and rivers not listed in Schedule 1, wetlands and lakes not in (d)	0 to 7°	Between 0-3 horizontal metres of the water body
			> 7 to 15°	Between 0-5 horizontal metres of the water body
			> 15 to 25°	Between 0-10 horizontal metres of the water body

- (b) There shall be no point source discharge of sediment contaminated stormwater to surface water from the activity.
- (c) The diffuse discharge of sediment contaminated stormwater to surface water from the activity shall not cause the following effects, except where a 20% AEP flood event is exceeded:
- (i) The production of any conspicuous oil, grease films, scums or foams, or floatable or suspended solids.
  - (ii) Any conspicuous change in colour or visual clarity.
  - (iii) Any emission of objectionable odour.

- (iv) The rendering of fresh water unsuitable for consumption by farm animals.
- (v) Any more than minor adverse effects on aquatic life.
- (d) The activity shall not cause or induce erosion to land or to the bed or banks of any surface water body, where the erosion is persistent or requires active erosion control measures to bring it under control. Erosion includes:
  - (i) Instability of land or the banks or the surface water body.
  - (ii) Scour to the bed of the surface water body.
- (e) The activity shall not disturb vegetation in a wetland; or change the water flow or quantity, or quality in a wetland.
- (f) All practicable measures shall be taken to avoid vegetation, soil, slash or any other debris being deposited into a water body or placed in a position where it could readily enter or be carried into a water body.
- (g) No machinery refuelling or fuel storage shall occur at a location where fuel can enter any water body.
- (h) No contaminants (including, but not limited to, oil, hydraulic fluids, petrol, diesel, other fuels, paint, solvents or anti-fouling paints), excluding sediment, shall be discharged to water, or discharged to land in circumstances where the contaminant may enter water, from the activity.
- (i) Cultivation shall be undertaken across the contour of the land.
- (j) A permanent vegetation cover shall be retained to provide a sediment filter between the cultivation activity and the edge of the river, stream, wetland or lake.

#### **Advisory Note**

- 1 Best management practices, including appropriate cropping, silt traps, silt fences, or bunding, can be used to maintain optimal sediment filtration across the riparian strip.
- 2 LM R15 does not regulate no-tillage cultivation practices, and direct seed drilling (refer to Definition of Terms for further exclusions).
- 3 The Riparian Management Zone in LM R15 does not apply to artificial watercourses or ephemeral flowpaths (refer to Definition of Terms).

#### **Explanation/Intent of Rule**

To allow cultivation as part of normal farming practices in areas that do not present a high risk to the environment. Refer to Flow Diagram LM 5 to assist reading of this rule.

#### **LM R16 (Rule 5A) Discretionary – Cultivation**

The disturbance of land and soil from cultivation that is not a permitted activity in accordance with LM R15, is a discretionary activity.

#### **Explanation/Intent of Rule**

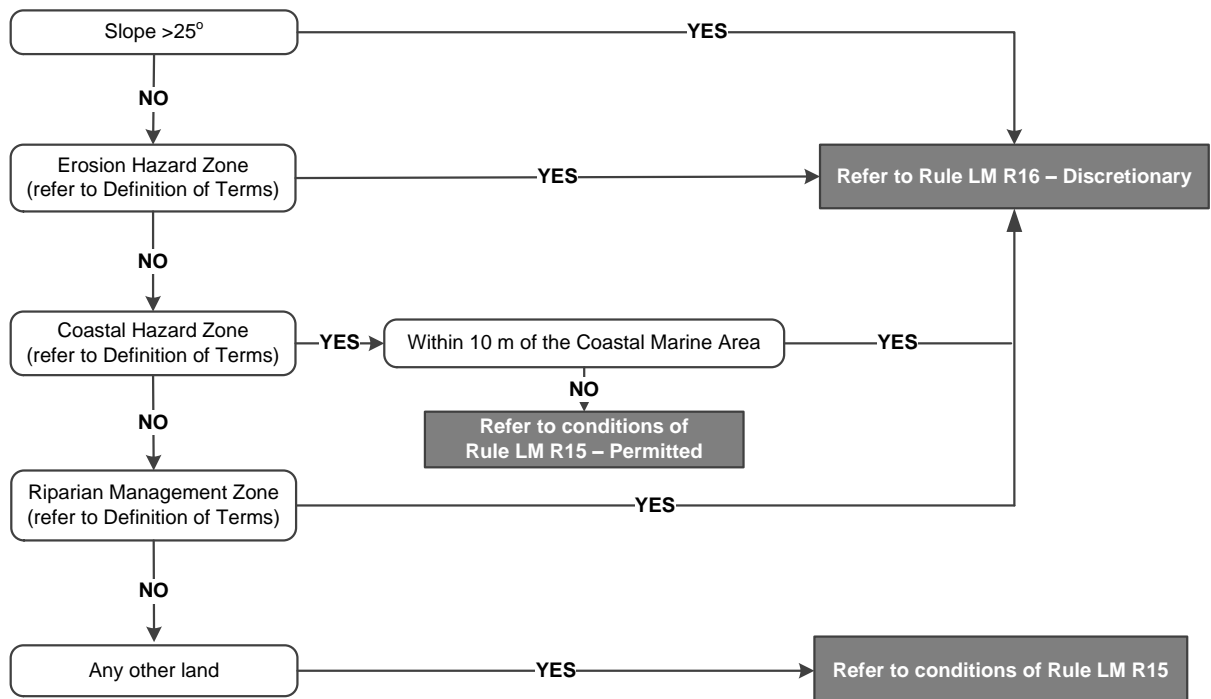
To allow the Regional Council to assess the adverse environmental effects of land disturbance activities on a case by case basis, where the activity is likely to cause more than minor effects, including activities in high risk locations.

**Assessment Criteria**

When assessing resource consent applications under this rule, the Regional Council will have particular regard to, but not be limited to, the following provisions:

*Objective*    *KT O4, KT O5, LM O1, LM O2, LM O3, LM O5, DW O9, DW O12*  
*Policy*        *KT P5, KT P14, KT P15, KT P17, KT P18, KT P20, IM P1, DW*  
                      *P15, DW P18*  
*Method*        *KT M13, KT M20, KT M21, IM M10, IM M12, DW M28*

### Flow Diagram LM 5 – Cultivation



#### Advisory Note

- 1 This flow diagram is to assist working out which rules apply but does not constitute a part of the rules. If there is any inconsistency between the flow diagram and the rules in the regional plan it refers to, the criteria in the rules prevail.

#### LM R17 (Rule 10) Permitted – Grazing of Land

The disturbance of land, soil and ephemeral flowpaths and artificial watercourses by the grazing of stock is a permitted activity subject to the following conditions:

- 1 The activity complies with the following standards:
  - (a) The activity shall not cause or induce erosion to land or to the banks of a surface water body where the erosion is persistent or requires active erosion control measures to bring it under control. Erosion includes:
    - (i) Instability of land or the banks of a river, stream, lake or wetland.
    - (ii) Scour to the bed of a river, stream, lake or wetland.
  - (b) The grazing of stock shall be managed to avoid the point source discharge of surface runoff containing accumulated stock faecal material into a stream, river, lake or wetland. This excludes dairy effluent discharges that are addressed under resource consent.
  - (c) All practicable steps shall be taken to avoid, remedy or mitigate the increase of nutrient, urine or faecal matter, or sediment in water within artificial watercourses resulting from stock access or crossing of artificial watercourses.
  - (d) Grazing of stock in the riparian area of a stream, river, lake or wetland shall be managed to maintain sufficient vegetation cover to provide a filter between land and the surface water body;

Or

The landowner implements, maintains and complies with an active Farm Quality Programme that addresses the adverse effects of grazing in a manner that complies with the provisions of this regional plan. A Farm Quality Programme can be any one of the following:

- (a) An operative Environmental Programme or Property Plan; or
- (b) An operative Quality Assurance Programme with a robust environmental component that is operated by an appropriate sector of the farming industry that is listed in Schedule 8; or
- (c) A specific, operative environmental management plan for an area of land that is listed in Schedule 8.

#### **Explanation/Intent of Rule**

To control the adverse environmental effects of grazing. This rule is a pragmatic, equitable and practicable means of addressing the adverse effects of the activity. The Regional Council prefers landowners to comply with the permitted rule conditions rather than having to require a resource consent. Any grazing that is not permitted by LM R17 is a discretionary activity under LM R18. Farm Quality Programmes listed in Schedule 8 comply with WQ M10.

#### **LM R18 (Rule 10A) Discretionary – Grazing of Land**

The disturbance of land, soil and ephemeral flowpaths by the grazing of stock that is not permitted by LM R17 is a discretionary activity.

#### **Explanation/Intent of Rule**

To allow the Regional Council to assess the adverse environmental effects of land disturbance activities on a case by case basis, where the activity is likely to cause more than minor effects.

#### **Assessment Criteria**

When assessing resource consent applications under this rule, the Regional Council will have particular regard to, but not be limited to, the following provisions:

*Objective* LM 02, TH 01, RL 03, OH 01, LM 03, LM 04  
*Policy* 21