2.1 INTRODUCTION
This part of the District Plan outlines how the environment and resources of the urban parts of the District are to be managed through the District Plan. Matters relating to environmental protection and in particular, landforms, vegetation, the air, general amenity and related matters, are examined.

2.2 OVERVIEW
The impact of human activities in the District has resulted in modifications to the coastline, landforms, vegetation, water and soil. Further, general amenity has been affected through the generation of noise, air pollution, glare, odour and vibration. To a certain extent, this is a natural consequence of urban development. At the same time, some impacts have been the result of limited or poorly developed or integrated controls.

Papakura District is subject to a range of man-induced and natural hazards. Site development works as part of the process of urbanisation frequently result in the loss of vegetation and soil cover. Such impacts of man are of relatively manageable proportions and can be modified through controls. Natural hazards differ in severity according to a number of factors including the specific characteristics of the extreme physical events and the ways in which the community responds. These occurrences require a different response.

2.3 NATURAL LANDFORMS AND VEGETATION
Provisions for the conservation of landscape are set out in the District Plan and these relate variously to the protection of the native and exotic tree species set out in Schedule 3E, the protection of bush of greater than specified areas, the protection of any tree, bush, plant or landscape listed in Schedule 3B as being of scientific, wildlife, botanical or historic interest or of visual appeal, the removal of topsoil and the excavation of spoil, soil or any other materials. Further, limitations on the use or development of the Sites of Special Wildlife Interest are also set out. The deposition of spoil, soil and other materials is controlled by the provisions for landfilling as an activity, subject to assessment criteria and limitations on scale.
2.4 ENVIRONMENTAL STANDARDS

One method in this Plan for determining the suitability of a particular use in a zone is the likely effect of that use on the environment and the amenities of the surrounding area. To gauge the effect of a particular use, a series of environmental standards have been developed against which an application may be measured. Standards relating to Air Pollution, Noise, Glare and Vibration have been developed.

2.4.1 Air Pollution

The majority of commercial and industrial areas are located relatively close to residential areas and it is important that these areas are protected from the airborne effects of industry.

The provisions of the former Clean Air Act 1972 and the industrial processes listed in the Second Schedule to that Act as amended to 1 July 1977 will form the basis of the District Plan provisions for determining the pollution potential of a particular activity.

2.4.2 Noise

Noise, particularly mechanical noise, is recognised as causing the greatest level of annoyance to surrounding areas. Control of noise is often a matter of building design or adequate sound-proofing of machinery.

Noise levels are measured at the boundary between lots. The effect of this ordinance will be to encourage uses, having noise levels exceeding the standard, to locate away from the residential areas. Should any activity create excessive noise within an area, the Council will consider taking action under section 327 of the Resource Management Act 1991 (Issue and Effect of Excessive Noise Direction) or under the provisions of other legislation controlling noise levels.

2.4.3 Glare

Illumination from floodlighting, welding and similar activities is likely to occur in a number of zones. In order to prevent a glare nuisance to adjacent activities, a standard specifying levels of illumination has been applied in all zones. In addition, illumination is to be screened or directed in such a manner as to avoid annoyance to neighbouring sites.

2.4.5 Vibration

Vibration can interfere with comfort, working efficiency and, in some instances, health and safety. Accordingly, this matter is addressed in the District Plan and controls are included which deal with human response to building vibration and in
Section Three, Part 2 – Protection of the Urban Environment

respect of levels of vibration which cause annoyance or discomfort rather than affect health or structural integrity.

Building vibration is most commonly transmitted to the body as a whole through the supporting surface. This includes the feet when standing, the buttocks when seated or the supporting area when reclining. Standards formulated to control vibration are generally related to the tolerance of a sitting or standing person. To this end, the Council has adopted the provisions of International Standard ISO 2631-2:1989 as the basis for the controls on vibration included in the District Plan.

Annex A and Table 2 of the standard give consideration to the time of day and the use made of the occupied space in the building. Below these magnitudes of vibration, the probability of human reaction is low.

2.5 RESOURCE MANAGEMENT ISSUES
The resource management issues which arise from a consideration of environmental protection and amenity matters in the urban area include:

- the management of activities throughout the District in order to avoid and mitigate adverse environmental effects.
- the management and control of activities within known areas of natural hazards.
- the overall management and control of activities throughout the District in order to avoid and mitigate the adverse effects of natural hazards.

2.6 RESOURCE MANAGEMENT STRATEGY
The resource management strategy to address matters of environmental protection and amenity is:

- to include in the District Plan provisions relating to the conduct of activities in identified flood-prone and unstable areas.
- to include provisions in the District Plan directed at the avoidance and mitigation of land erosion.
- to include provisions in the District Plan relating to noise, air pollution, glare, vibration, vegetation removal and water quality.

2.7 OUTCOMES
The expected outcome of the strategy is the retention and enhancement of the present levels of environmental quality and amenity, as well as increased understanding and awareness of the environmental effects of various activities in the urban area.

2.8 OBJECTIVES AND POLICIES
Objective

2.8.1 To permit the widest range of activities within the District while maintaining environmental quality and not adversely affecting amenity values.

Policies

2.8.1.1 To minimise the impact of activities on adjoining land uses and the coastal environment and waterways through the application of environmental standards.

2.8.1.2 To encourage a standard of environmental quality which contributes to the physical and social well-being of the community.

Objective

2.8.2 To maintain air quality in the District to the highest practical standard.

Policies

2.8.2.1 To require industrial activities to adopt the best practicable means of collecting, containing and minimising air pollution.

2.8.2.2 To prohibit those industrial activities which produce unacceptable levels of air pollution.

Objective

2.8.3 To prevent disturbances to the community caused by noise.

Policies

2.8.3.1 To set maximum permitted noise levels for all activities in order to prevent disturbance to people living and working in the community.

2.8.3.2 To measure and assess noise levels in accordance with New Zealand Standard 6801 and New Zealand Standard 6802 or their successors.

2.8.3.3 To measure noise with a sound level meter complying with the International Standard IEC 651 (1979) Sound Level Meters, Type 1, or other such meter or standard that Council may consider should replace and supersede this type.
Section Three, Part 2 – Protection of the Urban Environment

2.8.4 To prevent nuisance from sources of glare.

Policy

2.8.4.1 To require buildings to be designed so that glare does not cause a nuisance to adjoining properties.

2.8.4.2 To require activities to be conducted so that any glare created does not cause a nuisance to adjoining properties.

2.8.4.3 To measure glare on an instrument meeting the requirements of NZ Standards Institute C.P 22 (1962) and amendments, or other such instrument that Council may consider should replace and supersede this type.

Objective

2.8.5 To conserve those features of the physical landscape which contribute significantly to the character and amenity value of the District.

Policies

2.8.5.1 To protect native and exotic trees as specified in the list of species set out in Schedule 3E to this section of the Plan.

2.8.5.2 To identify and protect in the District Plan Significant Natural Areas as shown on the District planning maps.

2.8.5.3 To retain significant areas of bush in the District.

2.8.5.4 To list in Schedule 3B for protection and preservation, trees, bush, plants and landscape of significant scientific, wildlife, botanical or historic interest or of visual appeal.

2.8.5.5 To retain established land contours wherever practicable where development occurs in any zone.

2.8.5.6 To limit the extent of earthworks including the excavation and/or depositing of spoil, soil or any other materials to the scales specified in the rules.

2.8.5.7 To subject landfilling to specific assessment criteria.

Objective

2.8.6 To retain the Coles Crescent lagoon as a controlled wetland.

Policies
2.8.6.1 To manage the lagoon so as to retain it in its natural state insofar as this is practicable.

2.8.6.2 To set the water level, as a matter of course, at the maximum height available in the floodgate system.

2.8.6.3 To periodically flush the lagoon.

2.8.6.4 To carry out periodic maintenance on the lagoon and surrounding banks.

2.8.7 EXPLANATION

The conservation of the physical landscape, especially of trees, bush and landforms, will assist in soil and water management, including the prevention of instability, erosion and siltation. Further, such protection will provide valuable habitat for birds and other wildlife in the District.

Appropriate activities will be provided for throughout the District on the basis of the capability of the land to accommodate these.

2.9 RULES

2.10.1 Earthworks

2.10.1.1 No earthworks involving quantities greater than 50m$^3$ shall be permitted in any zone except where the Council has granted consent to an application for a Controlled Activity. In considering any such application, the Council shall have regard to the following matters:

(a) the nature and extent of the proposed work and the degree to which it may disturb natural landforms or vegetation or create soil instability or lead to adverse effects on habitats, watercourses, wetlands, estuaries or coastal waters;

(b) the proposed methods of re-instatement of all areas of cut and fill through landscaping, drainage or other stabilising methods where these are necessary; and

(c) the need for the proposed earthworks and the alternatives available to the landowner to avoid the necessity for the earthworks.
2.10.2.2 No earthworks shall be undertaken within a coastal yard, within 10 metres of a natural watercourse or affecting land that has a gradient greater than 1:5 or land comprising a significant landform except where the Council has granted consent for a Discretionary Activity. In considering any such application, the Council shall have regard to the following matters:

(a) that any re-contouring, filling or excavation works do not adversely impact the visual quality of the landscape;

(b) that the works do not create damage, danger or nuisance to adjacent or adjoining property;

(c) that the quality and extent of existing vegetation be retained where possible and that proposals for landscaping and re-contouring be set out in the application; and

(d) that any proposed ridgeline development be compatible with the natural landform.

2.10.2 Conservation of Landscape

2.10.2.1 Subject to Rule 2.10.2.2 below, no alteration shall be made to any tree or bush or any physical feature which involves:

(a) the destruction of or irreparable damage to any native or exotic trees specified in Schedule 3E appended to Part 3 standing higher than 6 metres or having a trunk circumference of more than 0.5 metres when measured 0.5 metres from the ground; or

(b) the destruction of or irreparable damage to any tree, bush, plant or landscape specified in Schedule 3B appended to Part 3; or

(c) the destruction of or irreparable damage to any tree, bush, plant or landscape within a Significant Natural Area identified on the planning maps.

This rule shall not limit:

(a) the trimming and pruning of a tree in accordance with recognised arboricultural practice, which is not likely to result in the death or destruction of the tree or cause irreparable damage to it.

(b) the treatment and removal of dead, damaged or diseased trees or other works relating to trees, earthworks or landform features which are immediately necessary to avoid any actual or potential damage to the life, health or property of the people of any area.

(c) the establishment, management and harvesting of indigenous forests planted for that purpose.

(d) the management and harvesting of trees planted for that purpose.

(e) the powers of any statutory authority to carry out work authorised by any statutory provision.
(f) the power of the Council in terms of this District Plan to approve a plan of subdivision and set conditions as to the preservation of natural landscape, trees or areas of trees or bush.

(g) the operation of any Statute or delegated legislation which may conflict with this ordinance or to which this ordinance is subordinate.

(h) the operation of Rule 3.8.11 relating to deletion of scheduled items.

2.10.2.2. Where any proposed use of land for any purpose does not comply with the provisions of this rule, an application for a Discretionary Activity shall be made to the Council.

In considering any application under the above rule, the Council will have regard to:

(a) the objectives and policies of the District Plan and of the zone in which the land is located;

(b) previous applications in respect of the land which involved consideration of the conservation of the landscape;

(c) the need of the applicant to be able to use the land in a practicable way;

(d) the need of an applicant to obtain a practicable building site, access, parking area or the installation of engineering services on the land;

(e) the botanical and ecological value of indigenous vegetation, taking into account its regeneration, the diameter and height of dominant trees and the presence of rare species;

(f) the significance of indigenous vegetation as a wildlife habitat;

(g) the scenic value of indigenous vegetation to the amenities of the area, including its visual impact from roads and other publicly owned land;

(h) the suitability of the land for the proposed use, taking into account the effects of the environment, land capability and soil conservation advice and the provisions of Part 9, Subdivision, of the District Plan.

To assist the Council in making its decision on any application under this ordinance, the Council may seek the advice of one or more of the following:

(a) Auckland Regional Council
(b) Department of Conservation
(c) New Zealand Historic Places Trust
(d) The Tree Council
(e) The Royal New Zealand Institute of Horticulture
(f) New Zealand Institute of Landscape Architects
(g) New Zealand Institute of Parks and Recreation Administration
(h) The District Maori Council and tangata whenua
(i) any other organisations or individuals considered by the Council to have specialist knowledge or interest relevant to the proposal.
Any advice received in terms of this rule will be forwarded to the applicant, who will be afforded adequate opportunity to comment on or rebut the advice received.

2.10.3 Water and Soil Resources and Hazardous Substances

2.10.3.1 No activity shall cause the unauthorised discharge of any potentially contaminating material to the ground or into natural waters. Certain discharges may be permitted, subject to the granting of a water permit from the Auckland Regional Council.

2.10.3.2 All surfaces which are able to drain to the ground, natural waters, and/or sewers, shall be maintained in a clean and uncontaminated condition. The following Industrial and Commercial activities shall provide the best practical means of avoiding stormwater contamination:
- washing down of matter
- storage and handling of all chemicals and petro chemicals
- car parking spaces
- any process or material storage which could generate contaminated stormwater runoff.

2.10.3.3 The storage or stockpiling of any potentially harmful or contaminating material shall not be permitted, unless the Director of Planning and Regulation is satisfied that all reasonable precautions have been taken to prevent the material from washing into the ground, natural waters and/or sewers.

2.10.3.4 All potentially harmful or contaminating materials shall be stored so that any leak or spill is promptly and easily detectable and bunded so that the material cannot enter soil, natural waters and/or sewers. The bund storage volume should be at least equal to that of the storage vessel or vessels.

2.10.3.5 Underground storage facilities must be subject to satisfactory tests for leakage to the approval of the Director of Regulation and Planning and must comply with the Code of Practice for the design, installation and operation of underground Petroleum Storage Systems.

2.10.3.6 Some discharges to the sanitary sewer may require a Trade Waste approval.
2.10.3.7 Potentially harmful or contaminating materials are those which would contaminate water or soil so as to change its physical or chemical condition in such a manner as to make it unclean, noxious or impure, or as to be detrimental to the health, safety or welfare of persons using water, or as to be poisonous or harmful to animals, birds, fish or plants around or in the water or soil.

2.10.3.8 The Council will require land users using, storing, disposing or transporting hazardous substances in quantities greater than Level 1 in Schedule 6F to provide a contingency plan outlining actions to be taken in the event of an incident leading to the possible discharge of pollutants into the stormwater system. The contingency plan will cover the matters set out in Rule 6.15.4(d) and will be referred to the Auckland Regional Council for comment prior to approval.

2.10.3.9 The Council may, for any proposed activity where there is a reasonable likelihood of potential major adverse effects, require the applicant to furnish to the Council a risk assessment prepared by a suitably qualified person in order to enable the Council to properly evaluate the application. In determining whether or not a risk assessment is required, the Council will be guided by the principles embodied in the Code of Practice “Managing Hazards to prevent Major Industrial Accidents” (Department of Labour 1994).

2.10.4 Flooding

The following provisions apply to areas shown on the planning maps as flood hazard areas or possible flood hazard areas, excluding land covered by Designation 222 for Ardmore Airport Limited (refer Section Three Part 6 Rule 16.14.8.2).

2.10.4.1 Filling in Areas that are Subject to Flooding

1. The placement of fill on land that is subject to flooding is a restricted discretionary activity where:

   (i) A draft comprehensive flood management plan has been published by the Council for the catchment or comprehensive discharge consent for the discharge of stormwater from the catchment has been granted, which allow for filling to be located in the 1% annual exceedance probability flood plain.

   Advice Note:
The placement of fill on land which is subject to flooding, but not subject to Clause (i) above, will be required to obtain resource consent as a non-complying activity.

Where there is no comprehensive discharge consent for the catchment within which the site is located, a resource consent to divert water may be required from the Auckland Regional Council.

(ii) The fill will not affect surface water resulting from a storm having a 1% annual exceedance probability so as to increase the level of flooding on other property or adversely affect other property.

The Council’s discretion shall be limited to the matter of flooding.

Except as provided for by section 95A(4) of the Resource Management Act 1991, applications for a restricted discretionary activity will be considered without notification or the need to obtain approval from affected persons.

### 2.10.4.2 Buildings or Structures in Areas Subject to Flooding

1. The placement of buildings or structures on land that is subject to flooding is a restricted discretionary activity where:

   The Council’s discretion shall be limited to the matter of flooding.

   (i) A draft comprehensive flood management plan has been published by the Council for the catchment, or comprehensive discharge consent for the discharge of stormwater from the catchment has been granted, which allow for buildings to be located within the 1% annual exceedance probability flood plain.

   **Advice Note:**

   • The placement of buildings or structures on land which is subject to flooding but not subject to Clause (i) above, will be required to obtain resource consent as a non-complying activity.

   • Where there is no comprehensive discharge consent for the catchment within which the site is located, a resource consent to divert water may be required from the Auckland Regional Council.

   (ii) The habitable floor levels are at least 300mm above the 1% annual exceedance probability flood level.
(iii) The development will not affect surface water resulting from a storm having a 1% annual exceedance probability so as to increase the level of flooding on other property or adversely affect other property.

The Council’s discretion shall be limited to the following matters:

(i) Flooding

(ii) Provision of emergency access

(iii) Basement development which may be subject to inundation.

Except as provided for by section 95A(4) of the Resource Management Act 1991, applications for a restricted discretionary activity will be considered without notification or the need to obtain approval from affected persons.

2.10.4.3. Placement or Storage of Material

The placement or storage of material that is hazardous or floatable on land that is subject to flooding (that is within the 1% AEP flood level) is a discretionary activity.

Criteria for Assessment

Whether in the event of a storm having a 1% annual exceedance probability or less, material will be contained within the site and no adverse environmental effects will result.

2.10.5 Maintenance of Land and Buildings

2.10.5.1 No buildings or part thereof, excavation, or other work shall be left unfinished or shall be allowed to fall into such condition and no land shall be allowed to deteriorate or to remain in such a condition that it would, in the opinion of the Council, visually detract from the amenity values of the property or adjoining properties or the neighbourhood.

2.10.6 Ridgeline Amenity

2.10.6.1 Buildings located within the ridgeline amenity area shown on the planning maps shall be designed so that the proposed development is not visually intrusive.

2.10.7 Vibration in Buildings
(a) No activity shall be permitted to create vibration levels (acceleration in metres per second squared) relative to frequency which affect occupants of adjacent premises by exceeding the base curves of Figures 2a, 3a and 4a of International Standard ISO 2631-2:1989 “Evaluation of human exposure to whole-body vibration, Part 2: Continuous and shock-induced vibration in buildings” (1-870Hz).

(b) Annex A and Table 2 of ISO 2631-2:1989 shall be used for the assessment of continuous and transient (impulsive) vibrations.

(c) Instruments to measure such vibration and methods of measurement shall comply with Australian Standard AS2973:1987.

(d) The Council may approve vibration levels above these standards where it is satisfied that such levels are necessary for construction or demolition work of a limited duration.
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