

## **8.2 DESIGN AND LOCATION OF BUILDINGS**

### **8.2.1 SETBACK FROM PUBLIC DRAINS, LAKES, RIVERS, STREAMS, FLOODWAYS, SPILLWAYS AND FLOOD PROTECTION WORKS**

#### **8.2.1.1 DISCUSSION, PURPOSE AND REASONS**

- (1) Drainage of land in the Hauraki Plains area is imperative to ensure that the agricultural investment can continue to operate. As part of protecting this agricultural resource, access to the main drainage infrastructure has to be maintained for cleaning and flood control purposes. The placing of buildings within the area required to be available for drain maintenance will act as an impediment to the functions of the drains, and is managed by the Hauraki District Council Consolidated Bylaw Part 7 (Land Drainage). In addition, the floodways of the main river systems must be protected from inappropriate developments.
- (2) Flood protection works, under the control of the Waikato Regional Council and the Hauraki District Council, are also imperative to the future usability of the Hauraki Plains area. Aspects of this system – stopbanks, floodways and spillways and their immediate environment, must be protected from inappropriate developments.
- (3) For the towns throughout the District, the function of the drains is to protect the urban environment from the effects of flooding. Some of the drains are set aside as reserves (especially in Ngatea), or are protected by easements in favour of the District or Regional Councils or the Crown. For situations where these forms of protection are not in place, the setback of structures from drains and watercourses achieves the same result.
- (4) The margins of lakes, rivers and streams are such that buildings should not be constructed within them. This is due to the need to protect the water environment itself and to ensure that those margins be kept in a state that is suitable for esplanade purposes, and are able to vest "unencumbered" as an esplanade reserve in the event of subdivision or development. The Waikato Regional Plan includes rules relating to the building of structures along these water bodies for water environment protection. For those rivers and streams which have been identified for the setting aside of esplanade reserves and strips, controls on the erection of buildings are included in this District Plan.

#### **8.2.1.2 ENVIRONMENTAL RESULTS**

- (1) To ensure that drains, stopbanks, floodways and spillways that serve to protect the agricultural resource of the Plains and the urban resource of all the towns are available, and readily able to be maintained, for that purpose.
- (2) Protection of the margins of those rivers and streams which have been identified as requiring esplanade reserves and strips.
- (3) Protection of the function of floodways and spillways that are part of the flood protection schemes and to ensure the avoidance of damage to buildings within the proximity of spillways.

## 8.2.1.3 STANDARDS

Zone	Standard
(1) Rural and Reserve (Passive)	(a) No <i>building</i> is permitted within a floodway or spillway. Non compliance with this standard is a <i>Non Complying Activity</i> . (b) No <i>building</i> is permitted within 100 metres of a spillway. (c) No <i>building</i> is permitted within 12 metres of the boundary of a <i>Flood Protection Works</i> .
(2) All Zones	(a) No <i>building</i> is permitted within 20 metres of the margin of a river or stream identified for a future esplanade reserve or strip.

**Notes:**

- (a) The setback for *buildings*, planting of vegetation, *earthworks*, erection of fencing and other activities that could impede the operation and maintenance of public drains managed by the Hauraki District Council is controlled by the Hauraki District Council Consolidated Bylaw – Part 7 (Land Drainage).
- (b) The setback for *buildings* from rivers, streams, lakes and drains is also controlled by the Waikato Regional Plan.

## 8.2.1.4 RESTRICTED DISCRETIONARY ACTIVITY MATTERS

- (1) The *Council* will restrict the exercise of its discretion to the ability of the activity or development to achieve the particular environmental result in Section 8.2.1.2 of the Standards in Rule 8.2.1.3 for which compliance is not met and the following relevant matters:
  - (a) Whether the characteristics of the watercourse etc are such that it is unlikely to be required for an esplanade reserve or esplanade strip.
  - (b) Whether or not the *building* will impact on public access along the margin of the watercourse or is incompatible with the conservation values of the proposed esplanade reserve or esplanade strip.
  - (c) Whether the design, scale, location and intended use of the *building* will impede the efficient functioning of the spillway or *flood protection works*.

## 8.2.2 FLOOR LEVELS

### 8.2.2.1 DISCUSSION, PURPOSE AND REASONS

- (1) In some parts of the District localised flooding and ponding of water during periods of heavy and/or prolonged rain is experienced. The effects of this may range from minor nuisance for a short time, through to significant loss of property.
- (2) The setting of minimum floor levels is one way in which the detrimental effects of flooding and ponding can be avoided. The standard applies to residential and communal non-residential buildings only, as Council considers its primary responsibility is to protect the people of the District from the detrimental effects of natural hazards. It is the individual's responsibility to protect their business and other activities (other than communal non-residential activities) from the detrimental effects of natural hazards.
- (3) The floor levels set out in this standard are designed to protect buildings used for residential and communal non-residential purposes from frequent high intensity rain events with an up to 50 year return period (being the 2% Annual Exceedence Probability (AEP)) other than for the Piako Flood Ponding Area where the acceptable level is determined as being up to the 100 year flood event (being the 1% AEP). The level does not take into account failure of a stopbank. With respect to sea level rise Council has adopted the "mid-range value" of 0.5 metres, and incorporated this value within the standard of the District Plan.

### 8.2.2.2 ENVIRONMENTAL RESULTS

- (1) To ensure that residential and communal non-residential *buildings* and hence people are protected from the effects of reasonably expected flooding and ponding.

### 8.2.2.3 STANDARDS

Zone/Area	Standard
(1) Paeroa – Areas identified on the planning maps as being ' <i>Subject to Inundation</i> '  Paeroa – All other areas in all urban <i>zones</i> excluding the Flood Ponding Zone	Any new <i>building</i> or additions to existing <i>buildings</i> in the area shown on the planning maps as being ' <i>Subject to Inundation</i> ' which are to be used for residential or communal non-residential purposes shall be constructed so that the floor level of the <i>building</i> shall be at or above 500mm above the adjoining Flood Ponding Zone level shown on the planning map.  The provisions of the Building Act 2004 shall apply.
(2) Piako Flood <i>Ponding Area</i> - In that part of the Hauraki Plains area shown on the planning maps as being the Piako Flood <i>Ponding Area</i>	Any addition to an existing <i>building</i> which is to be used for residential or communal non-residential purposes shall be constructed so that the floor level of the <i>building</i> shall be at or above 500mm above the 100 year flood level (1% AEP).

Zone/Area	Standard
(3) In all other <i>zones</i> /areas (excluding the Paeroa Flood Ponding Zone) not otherwise specified in (1) and (2) above	The provisions of the Building Act 2004 apply.

#### 8.2.2.4 RESTRICTED DISCRETIONARY ACTIVITY MATTERS

- (1) The *Council* will restrict the exercise of its discretion to the ability of the activity or development to achieve the particular Environmental Result in Section 8.2.2.2 of the Standards in Rule 8.2.2.3 for which compliance is not met and the following relevant matters:
- (a) The degree to which other works have been or will be undertaken to avoid the effects of flooding, which make the standard unnecessary.
  - (b) Whether the purposes for which the part of the residential or communal non-residential *building* that will be below the flood level are to be used, are such that the standard is unnecessary.

## 8.2.3 EROSION PROTECTION SETBACK LINES (WHIRITOA BEACH)

### 8.2.3.1 DISCUSSION, PURPOSE AND REASONS

- (1) Whiritoa Beach is the only part of the District's coast that is susceptible to erosion of the sand dunes, where there is residential development existing or likely. A significant physical, social and economic resource has developed that requires protection, as do the residents of the settlement. While the coastal processes of erosion and deposition vary from season to season, investigations have shown that the long term trends can be reasonably well predicted and planned for.
- (2) Council wishes to recognise that coastal erosion is a possibility that needs to be accommodated when allowing development. The standards contained in this section have been developed after investigations of the beach by the Hauraki District and Waikato Regional Councils in the early 1990s, which were reviewed by the Waikato Regional Council in 2002, and subsequently reviewed by J Dahm, Eco Nomos Ltd in March 2010. His report titled 'Review of Coastal Erosion Setbacks: Whiritoa Beach' can be viewed on the Council website ([www.hauraki-dc.govt.nz](http://www.hauraki-dc.govt.nz)). This information has been used to revise the setbacks that had been in place under the previous District Plan.
- (3) The revised development setbacks are measured from a fixed baseline, which is the toe of the frontal dune mapped from 1995/96 photographs, with some localised modifications at the northern and southern ends of the beach. Separate setbacks have also been calculated around the entrances to the Ramarama and Whiritoa Streams. The position from which the setbacks are measured does not change even though the shoreline or stream banks may at different times erode and build up. The first of the setback lines (**Primary Development Setback**) delineates land potentially vulnerable to extreme (100 year return period) erosion with existing sea level conditions. The second setback (**Secondary Development Setback**) delineates additional land that may become vulnerable to erosion with present best estimates of sea level rise and climate change over the next 100 years. This secondary setback was calculated using a projected sea level rise of 0.5 metres.
- (4) The protection setback lines are one of a number of actions being undertaken to remedy and mitigate the dune erosion. Other actions include the establishment of the Whiritoa Beach Care Group, closure of a long established sand mining operation and education of the public on the conservation of the dune system.

### 8.2.3.2 ENVIRONMENTAL RESULTS

- (1) To safeguard, maintain and expand the coastal dune ecosystem.
- (2) To provide for the community's wellbeing, by encouraging development that is free of the identified natural hazard to a level demanded by the community.

## 8.2.3.3 STANDARDS

Zone	Standard
(1) In the Residential, Reserve (Active) and Reserve (Passive) Zones at Whiritoa	<p>(a) No new <i>buildings</i> are permitted seaward of the Primary Development Setback Line delineated on the planning map for Whiritoa.</p> <p>Non compliance with this standard is a <i>Non Complying Activity</i>.</p> <p>(b) No additions to existing <i>buildings</i> are permitted seaward of the Primary Development Setback Line delineated on the planning map for Whiritoa.</p> <p>(c) No new <i>dwellings</i> or <i>minor dwelling units</i> are permitted between the Primary and Secondary Development Setback Lines delineated on the planning map for Whiritoa.</p> <p>Non compliance with this standard is a <i>Non Complying Activity</i>.</p> <p>(d) Additions to existing <i>dwellings</i>, and <i>minor dwelling units</i>, and <i>accessory buildings</i>, located between the Primary and Secondary Development Setbacks Lines delineated on the planning map for Whiritoa, shall be designed to be <i>relocatable</i>.</p> <p><b>Note:</b></p> <p><i>Council</i> may issue the building consent subject to Section 73 of the Building Act 2004 (which provides for <i>Council</i> to issue the building consent subject to a condition that the Registrar-General of Land make an entry on the <i>title</i> that a building consent has been issued in respect of land which is subject to or likely to be subject to erosion).</p>

## 8.2.3.4 RESTRICTED DISCRETIONARY ACTIVITY MATTERS

- (1) The *Council* will restrict the exercise of its discretion to the ability of the activity or development to achieve the particular environmental result in Section 8.2.3.2 of the Standards in Rule 8.2.3.3 for which compliance is not met and the following matters:
- (a) Whether, through subsurface investigations, it is confirmed by an appropriately qualified person experienced in coastal erosion that erosion is unlikely to occur.
  - (b) Whether there are existing *buildings* on the *site* that are not *relocatable*, making it impracticable or unreasonable to require any new *building* or addition to an existing *building* to be *relocatable*.
  - (c) Alternative design measures to *relocatable* are proposed that will adequately protect the *building* from the adverse effects of coastal erosion and predicted sea level rise.

## 8.2.4 SEWAGE PLANT BUFFER AREAS

### 8.2.4.1 DISCUSSION, PURPOSE AND REASONS

- (1) The towns' and townships' sewage plants for treatment of human waste can generate effects which are detrimental or obnoxious to residents in the area. The proper management and operation of the plants can in most circumstances avoid smell becoming a nuisance. If residential development establishes in close proximity to the plants, the potential for conflict between the amenity of the residential area and the operation of the sewage treatment facility is increased. This potential conflict should be avoided, as the ability of the system to operate is essential to the wellbeing of the residents and the protection of the environment (especially waterways).
- (2) A buffer area is a straight-forward and cost-effective mechanism that can be implemented.
- (3) All existing and future public sewage treatment facilities are or will be designated in the District Plan. This is an upfront and transparent manner in which to provide for these facilities. However, the amount of land included in these designations may not be sufficient to contain all the detrimental effects of the facility. Accordingly, a buffer area around these facilities provides an additional protection.

### 8.2.4.2 ENVIRONMENTAL RESULTS

- (1) To achieve protection of the environment and the wellbeing of the community through providing for the operation of public community sewage facilities in a manner that does not create nuisance from odour or other effects.

### 8.2.4.3 STANDARDS

Zone	Standard
(1) In all zones	(a) No <i>buildings</i> or activities for residential, community or recreation purposes shall be sited or carried out within 150.0 metres of the edge of a sewage pond and sewage plant forming part of a public community sewage facility.

### 8.2.4.4 RESTRICTED DISCRETIONARY ACTIVITY MATTERS

- (1) The *Council* will restrict the exercise of its discretion to the ability of the activity or development to achieve the Environmental Result in Section 8.2.4.2 of the Standards in Rule 8.2.4.3 for which compliance is not met and the following relevant matters:
  - (a) The degree to which the *building* or activity to be carried out is detrimentally affected by the sewage plant.

## 8.2.5 GLARE AND LIGHTING

### 8.2.5.1 DISCUSSION, PURPOSE AND REASONS

- (1) Some building materials, particularly glass and unpainted metal sheeting, create glare which in some circumstances has the potential to be a detraction for adjoining areas and in some cases can be a hazard to motorists.
- (2) Lighting has a similar potential to glare, creating a hazard and/or a detraction from amenities. In addition, because it is in operation during night-time, lighting can be a cause of disturbance to residential amenities in a similar manner to noise. Lighting can be associated with security, advertising signs, sports fields or to allow outside work to occur at night-time.
- (3) Glare from buildings can be avoided or minimised by using screening or landscaping, painting and orientation of walls to reflect glare away from adjoining areas.
- (4) Lighting can be orientated or shaded in order that the spill of lighting remains within the site.

### 8.2.5.2 ENVIRONMENTAL RESULTS

- (1) To ensure glare and lighting from buildings or activities is managed in a way that allows the building or activity to be established and continue to operate in a manner that does not detract from the amenities of adjoining properties or zones, and does not create a hazard to traffic.

### 8.2.5.3 STANDARDS

#### (1) GLARE

In all *zones*, *buildings* are to be constructed and finished to ensure reflection (glare) from the *building* surfaces does not reflect into adjoining properties, or into the vision of motorists on a street or *road*.

#### (2) LIGHTING

In all *zones*, artificial lighting shall be installed, designed, shaded and arranged in order that the level of lighting measured horizontally or vertically at any point on or directly above the boundary of any adjacent site or *road* is no greater than 8.0 lux.

**Note:** For the limitations related to lighting associated with advertising and *signs*, refer to Section 7.6.



**8.2.5.4 RESTRICTED DISCRETIONARY ACTIVITY MATTERS**

- (1) The *Council* will restrict the exercise of its discretion to the ability of the activity or development to achieve the particular environmental result in Section 8.2.5.2 of the Standards in Rule 8.2.5.3 for which compliance is not met and the following relevant matters:
- (a) Whether the level of "brightness" from the surface or lighting is such that it will create a traffic hazard or interfere with the operation of activities on properties outside the *site*.
  - (b) Whether the nature of the activities on adjoining sites or *zones* is such that any glare or lighting spill would not be noticeable and would not have a detrimental effect.

