

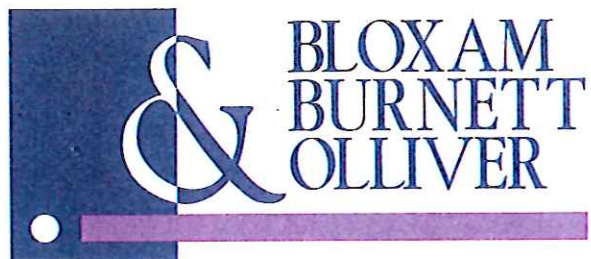
**INGHAM'S ENTERPRISES (NZ) PTY LTD**

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**SOIL ASSESSMENT / LANDUSE  
CAPABILITY STUDY**

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**ENGINEERS • PLANNERS • SURVEYORS**


**APRIL 2013**

# Inghams Enterprises (NZ) Pty Ltd

## Soil Assessment / Landuse Capability Study

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## **1.0 INTRODUCTION**

- 1.1 Inghams Enterprises (NZ) Pty Ltd ('Inghams') operates a poultry processing factory at Waihekau Road, Waitoa. The site is provided for in the Operative Matamata-Piako District Plan ('District Plan') in the form of a Development Concept Plan ('DCP'). Additionally, the site holds a number of resource consents granted by both the District and Regional authorities.
- 1.2 Progressive development of the Inghams site means that the DCP has effectively been superseded by resource consents and no longer provides for future growth of the facility.
- 1.3 The purpose of the Plan Change is to ensure alignment between Inghams existing resource consents and the Development Concept Plan ('DCP') contained within the Matamata-Piako District Plan, and to provide for additional growth and development.
- 1.4 Specifically, the Plan Change seeks to achieve the following outcomes:
- To increase (or delete) the daily processing number limit in birds per day, in order to allow for future growth;
  - To amend the noise level limits in order to better reflect current and future noise emissions; and
  - To update the DCP to reflect current site status and planned future development.
- 1.5 A range of environmental effects are required to be considered as part of the Plan Change process. This includes an assessment of the effects of the Plan Change on the soils of the Matamata-Piako District. This report outlines the results from a 'desktop' review of available soil studies specific to the site.

## **2.0 DEVELOPMENT CONCEPT PLAN**

- 2.1 The existing Development Concept Plan (DCP) designates the specific parts of the site which can be utilised for the various components of the poultry processing operation. The DCP currently allocates an approximately 15.1ha portion of the site along the eastern boundary, fronting Waihekau Road for 'Building and Plant Management' activities. This area is currently severed by the Waipuna Drain which comprises a deeply incised channel, flowing east to west through the site effectively splitting the current 'Building and Plant Management Area' in two. The area to the north of the drain forms the existing area of site development/operational area incorporating all site processing facilities, administration buildings, water tanks, wastewater ponds and staff carparking. The area to the south of the drain, while designated for 'Building and Plant Management' activities, is retained in pasture due to the physical barrier presented by the drainage channel.
- 2.2 The intent of the proposed plan change is to amend the existing DCP through extending the area currently allocated for 'Building and Plant Management' activities further northward to provide for development of a further approximately 4.8ha area. This area (under the current long-term site development strategy) will be used predominantly for creation of new car parks which are required in conjunction with the proposed intensification of the production capacity of the poultry processing operation. The area of extension is proposed as it forms a practical extension from the existing site carparking and entry point in proximity to the site

reception and entrance. Development of the 'Building and Plant Management' area to the south of the Waipuna Drain would be unpractical due to its physical separation from the existing facilities, distance from the site entrance and the flow of bird processing through the site (i.e. birds arrive at the northern end of the site and are processed in a north to south flow before they are dispatched at the southern end of the site).

### 3.0 SITE SOIL ASSESSMENT

#### 3.1 Soil Classifications

- 3.1.1 Classification of the site soils has been undertaken through review of two separate soil classification resources comprising the '*New Zealand Land Resource Inventory Worksheets, National Water and Soil Conservation Organisation, 1978*' and the '*Soil Resources of Piako County, North Island, New Zealand, New Zealand Soil Survey Report 39 , AD Wilson, 1980*'.
- 3.1.2 The *Wilson* report was developed through intensive investigations of the soils of the old Piako County area (now incorporated within the Matamata-Piako District) and included a detailed interpretation of the limitations of the soils for a range of possible uses.
- 3.1.3 Soil classifications maps within both resources identify three separate soil types within approximately the same areas the site. The extent of these three soil types within the site as identified within these documents is shown on the soil classification plan taken from the *Wilson* report which is attached as **Appendix 1** and are described in the following sections of this report.

#### 3.2 Kereone Soils

- 3.2.1 Soils within the elevated terrace towards the northern site boundary and extending as an approximate 150m wide band parallel to Seddon Road are identified within *Wilson* as 'Kereone Soils' (shown as 'Ke' on the soil classification plan taken from the *Wilson* report which is attached as **Appendix 1**). Kereone Soils are described as a very friable yellow-brown silt loam on underlying sands with good drainage characteristics, and a medium natural nutrient status. Potential soil uses are described as being well suited to intensive livestock, mixed cropping and horticultural production and as soils of high actual value for food production.
- 3.2.2 These soils are identified within the *New Zealand Land Resource Inventory Worksheets* as comprising Class II soils which are described as very good land with slight physical limitations to arable use, readily controlled by management and soil conservation practices.
- 3.2.3 It is within this part of the site that extension of the land designated for 'Building and Plant Management' activities is proposed.

#### 3.3 Te Puninga Soils

- 3.3.1 A narrow band of soils identified within *Wilson* as 'Te Puninga Soils' extend through the site following the east-west alignment of the lower lying land surrounding the Waipuna Drain. Te Puninga Soils (shown as 'TP' on the soil classification plan taken from the *Wilson* report which is attached as **Appendix 1**) are described as a very friable yellow-brown silt

loam on underlying mottled sands. Drainage characteristics are generally good though limited by seasonally high water tables and a medium natural nutrient status. Potential soil uses are described as being well suited to intensive grassland, mixed cropping and horticulture and marginally suited to deeper rooting crops and are again noted as soils of high actual value for food production.

- 3.3.2 These soils are identified within the *New Zealand Land Resource Inventory Worksheets* as comprising Class I soils which are described as the most versatile, multiple use land with minimal limitations for arable use.

### **3.4 Waitoa Soils**

- 3.4.1 The balance area of the site being the pastoral land south of the Waipuna Drain is identified as comprising 'Waitoa Soils' (shown as 'Wt' on the soil classification plan taken from the *Wilson* report which is attached as **Appendix 1**). Waitoa Soils are described as a friable silt loam overlying grey/mottled sands subject to gleying. Drainage characteristics are moderate/slow being limited by seasonally high water tables and a low natural nutrient status. Potential soil uses are described as limited, requiring drainage though suited to intensive dairy and beef production and limited cropping.
- 3.4.2 These soils are identified within the *New Zealand Land Resource Inventory Worksheets* as comprising Class II soils which again, are described as very good land with slight physical limitations to arable use (drainage), readily controlled by management and soil conservation practices.

## **4.0 LANDUSE CAPABILITY ASSESSMENT**

- 4.1 The soil classifications of the site identify all parts of the site as either Class I or II high quality soils with multiple potential agricultural/horticultural uses.
- 4.2 Both Class I and II soils can be considered versatile and/or high producing land which forms New Zealand's limited resource of productive/versatile land. Of the whole country only 1,398,000ha (5.4%) is classified as Class I or II land. Comparatively, within the Matamata-Piako District, land classified as Class I and Class II occupies 23,965ha and 61,586ha respectively (85,551ha) total, accounting for approximately 49% of the district's total land area.
- 4.3 An allowance for further development of the site through the proposed changes to the DCP will undoubtedly result in the loss of a portion of the site's soils' productive capabilities, being replaced by hardstand carparking surfaces and/or buildings.
- 4.4 However, in considering the scale of this loss in the context of the entire site and the overall high quality soil resource of the district, the extension of the 'Building and Plant Management' area by an approximate 4.8ha area for hardstanding car parking surfaces and buildings is considered to present a negligible loss and is not considered to create any risk or precedent to the high quality soil resources of the district. With the entire Inghams site and close to half of the district identified as comprising Class I or II high quality soils, Inghams' ability to utilise an alternative area within the site or within the wider district for further development, which would not result in the loss of an area of high quality soils is significantly restricted.

- 4.5 Hence the proposed development through an extension around the periphery of the existing facilities, resulting in the loss of only a minor area of high quality soils and reducing potential fragmentation of the balance of the pastoral block within the site, is considered to represent the best practical option to allow site developments to proceed.
- 4.6 Furthermore, the proposed site development comprises a practical extension to the existing facilities, occurring adjacent to the existing carpark, site entrance and road frontage with carpark engineering requirements being dependent upon low gradient, structurally sound subsoils . Hence, the elevated land adjacent to the Seddon/Waiheke Road intersection is again considered to provide the most practical location for this facility while minimising potential impacts upon high quality soils.



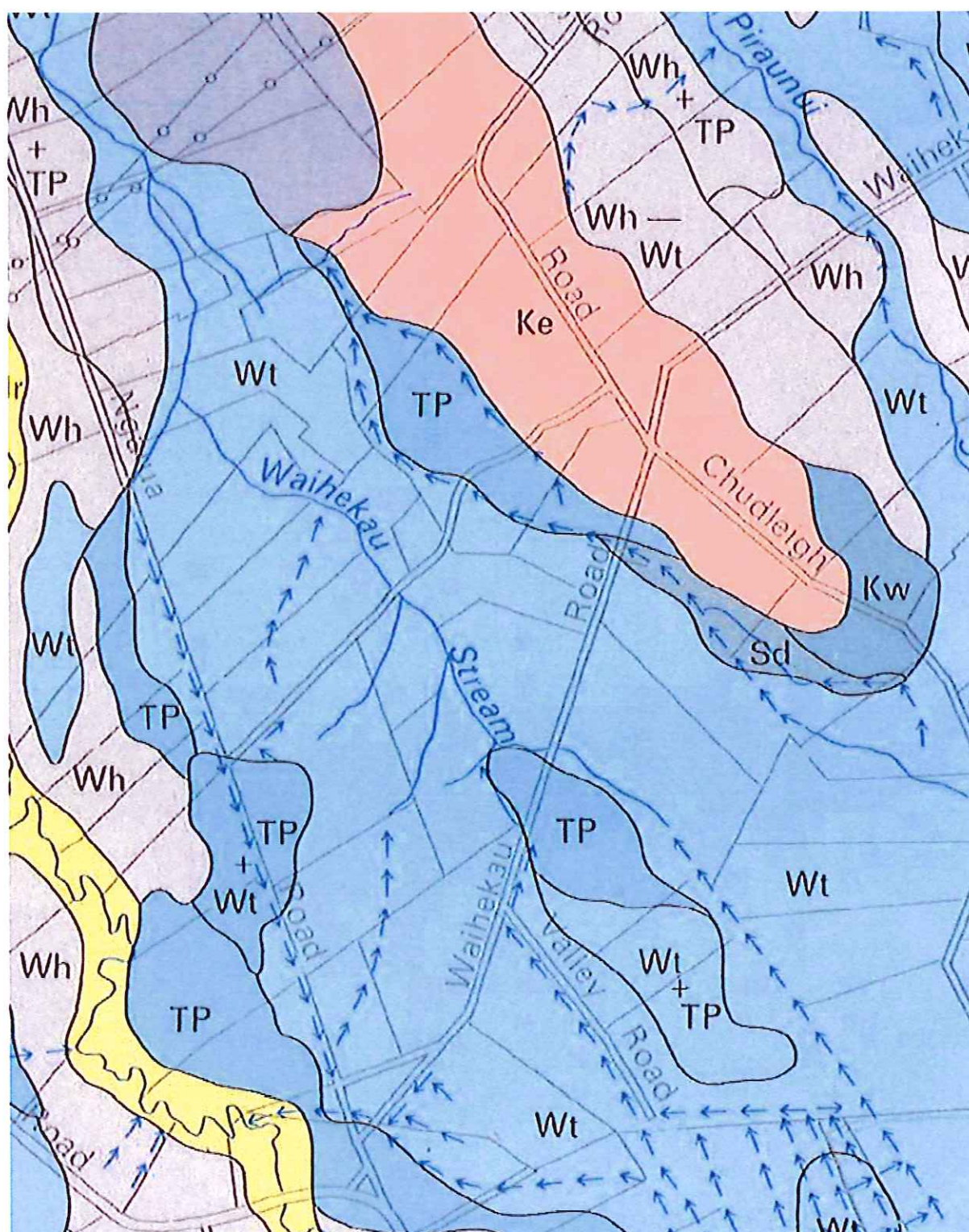
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April 2013



# **APPENDIX 1:**

# **SITE SOILS MAP**



**Site Soils Map** – taken from ‘Soil Resources of Piako County, North Island, New Zealand, New Zealand Soil Survey Report 39 , AD Wilson, 1980’