

**Legend**

Modelled Area - Port Waikato

Land Region

Date	Description	Date	Approved	Name	Date
			Modelled:	J. Haim	JUL 2004
			Drawn:	J. Chien	JUL 2004
			Checked:		
			Supervisor:		
			Scale:	@ A3 1: 20,000	
			Project:	024517-1049	

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**Franklin**
  
 COUNCIL

Project: **Stromwater Catchment Management Plan**  
**Port Waikato Township**  
 Location of Study Area

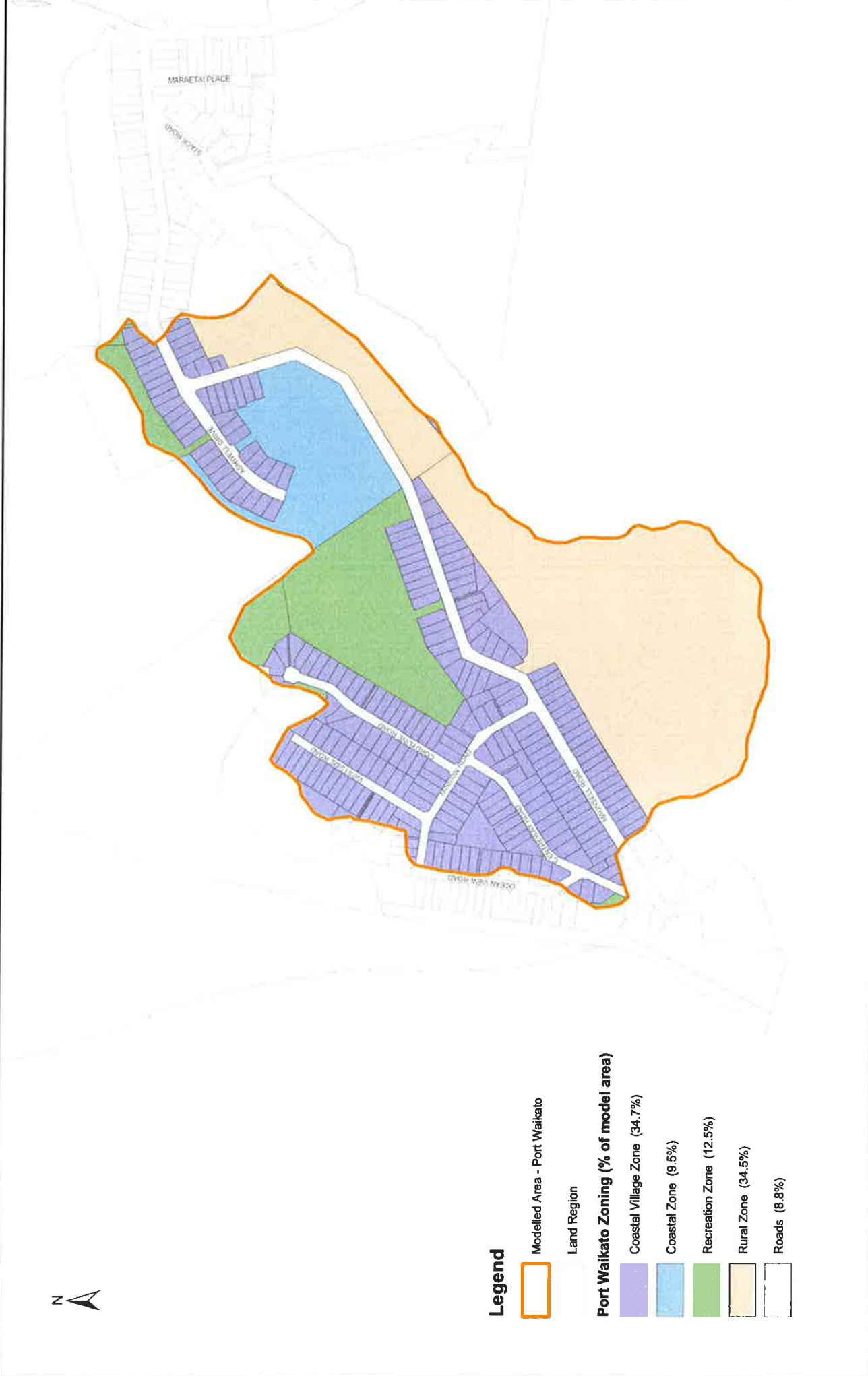
Issued for: **Information**

Project Number: **004517**

Sheet Number: **Figure 1**

Issue: **Draft**

GIS file: G:\WBEM\004517\GIS\Port\_Waikato\_Change.mxd  
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**Legend**

- Modelled Area - Port Waikato
- Land Region

**Port Waikato Zoning (% of model area)**

- Coastal Village Zone (34.7%)
- Coastal Zone (9.5%)
- Recreation Zone (12.5%)
- Rural Zone (34.5%)
- Roads (8.8%)

Date	Description	Drawn	Checked	Approved	Date	Designated	Drawn	Checked	Approved	Date
July 2004		J. Chien		S. Leuberg	July 2004	J. Chien				July 2004

GIS files: G:\WORK\GIS\Project\04157\GIS\Port\_Waikato\_20040701.mxd  
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**Client:**  
 Franklin District Council

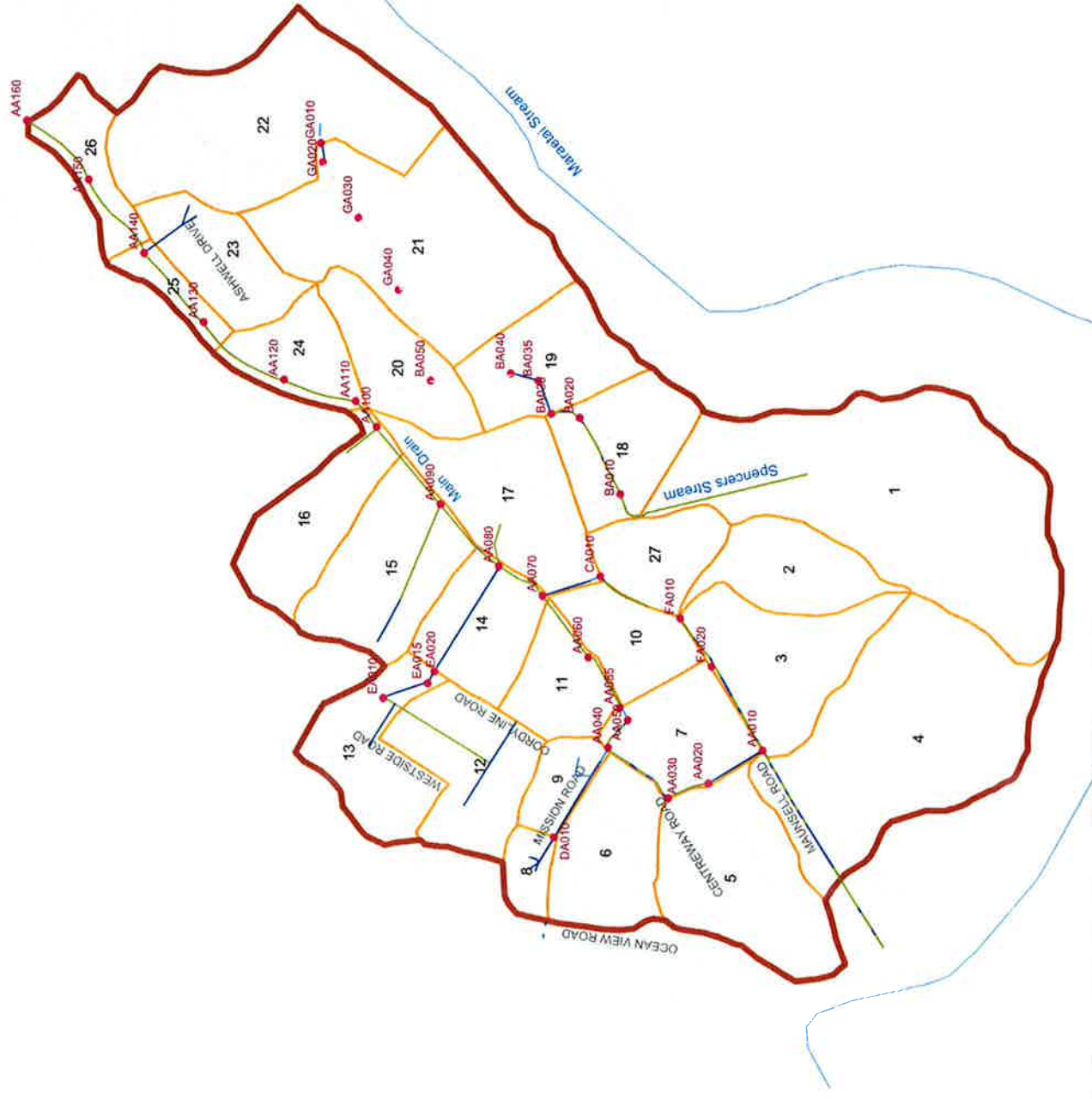
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**Project:** Stromwater Catchment Management Plan  
 Port Waikato Township  
 District Plan Zoning Areas

**Information**  
 Issued for: V04517  
 Project Number: V04517  
 Sheet Number: Figure 2  
 Issue: Draft



MARAETAI PLACE  
STACK ROAD



### Legend

- Modelled Nodes
- Stormwater Pipes
- Open Channel
- Stormwater Culvert
- Land Region
- Sub\_catchment Boundary
- Modelled Area

Issue	Description	Date	Approved	Name	Date
	Modelled	July 2004	J. Islam		July 2004
	Drawn	July 2004	J. Chan		July 2004
	Checked				
	Approved				
Scale: @ A3 1:5000					
Projection: NZMS 1980					

GIS file: G:\WEM\Wd\Project\FU\WST\GIS\Fort_Waikato_Digges.mxd	
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Client:	Franklin City Council
Project:	CITY DESIGN Lead: B. Buckle, House, 24 Waterloo St, Auckland P.O. Box 853, Waterloo St, Auckland 1, NZ
Project Number:	V04517
Sheet Number:	Figure 3
Block:	Draft
Issued for:	Information

## Stormwater Catchment Management Plan Port Waikato Township Sub-catchment Layout Plan

**Legend**

Port Waikato Cross-section

Survey Points

Land Region

Modelled Area - Port Waikato

**Survey Density (Metre to Point)**

0 - 5

5.01 - 10

10.1 - 15

15.1 - 20

20.1 - 25

25.1 - 30

30.1 - 35

35.1 - 40

40.1 - 45

45.1 - 50

50.1 - 55

55.1 - 60

60.1 - 65

65.1 and over



Issue	Description	Date	Approval	Name	Due
				J. Islam	July 2004
				J. Chen	July 2004

**Franklin**

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**Stromwater Catchment Management Plan**  
**Port Waikato Township**  
**Survey Points**

Project: Information

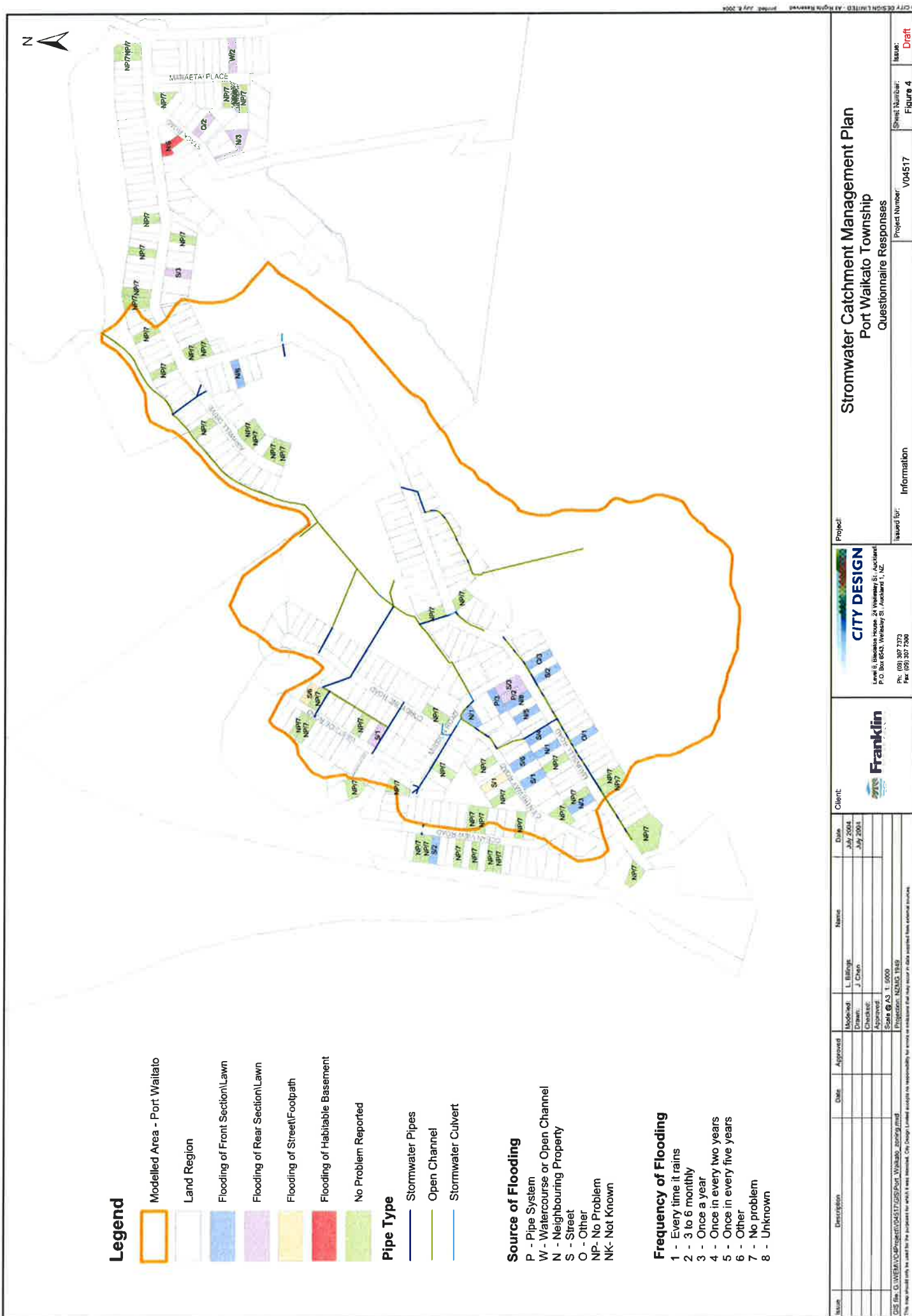
Issued for: Information

Project Number: V04517

Sheet Number: Figure 4

Issue: Draft

GIS file: G:\WPM\VO\Proj\GIS\Port\_Waikato\_Survey\_Points.mxd  
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**Legend**

- Modelled Area - Port Waikato
- Land Region
- Flooding of Front Section/Lawn
- Flooding of Rear Section/Lawn
- Flooding of Street/Footpath
- Flooding of Habitable Basement
- No Problem Reported

**Pipe Type**

- Stormwater Pipes
- Open Channel
- Stormwater Culvert

**Source of Flooding**

- P - Pipe System
- W - Watercourse or Open Channel
- N - Neighbouring Property
- S - Street
- O - Other
- NP - No Problem
- NK - Not Known

**Frequency of Flooding**

- 1 - Every time it rains
- 2 - 3 to 6 monthly
- 3 - Once a year
- 4 - Once in every two years
- 5 - Once in every five years
- 6 - Other
- 7 - No problem
- 8 - Unknown

Issue	Description	Date	Approval	Name	Date
			Modelled:	L. Billing	July 2004
			Drawn:	J. Chan	July 2003
			Checked:		
			Approved:		

**Franklin**

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**Project:** Stormwater Catchment Management Plan  
 Port Waikato Township  
 Questionnaire Responses

**Client:** Information

**Project Number:** V04517

**Sheet Number:** Figure 4

**Issue:** Draft

GIS file: G:\WEB\A\Projects\04517\GIS\Port\_Waikato\_2003.mxd  
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MARAETAI PLACE  
 WAIKATO ROAD



**Legend**

- Stormwater Pipes
- Open Channel
- Stormwater Culvert
- Land Region
- MPD 2 Year ARI Floodplain
- MPD 5 Year ARI Floodplain
- MPD 100 Year ARI Floodplain
- Modelled Area

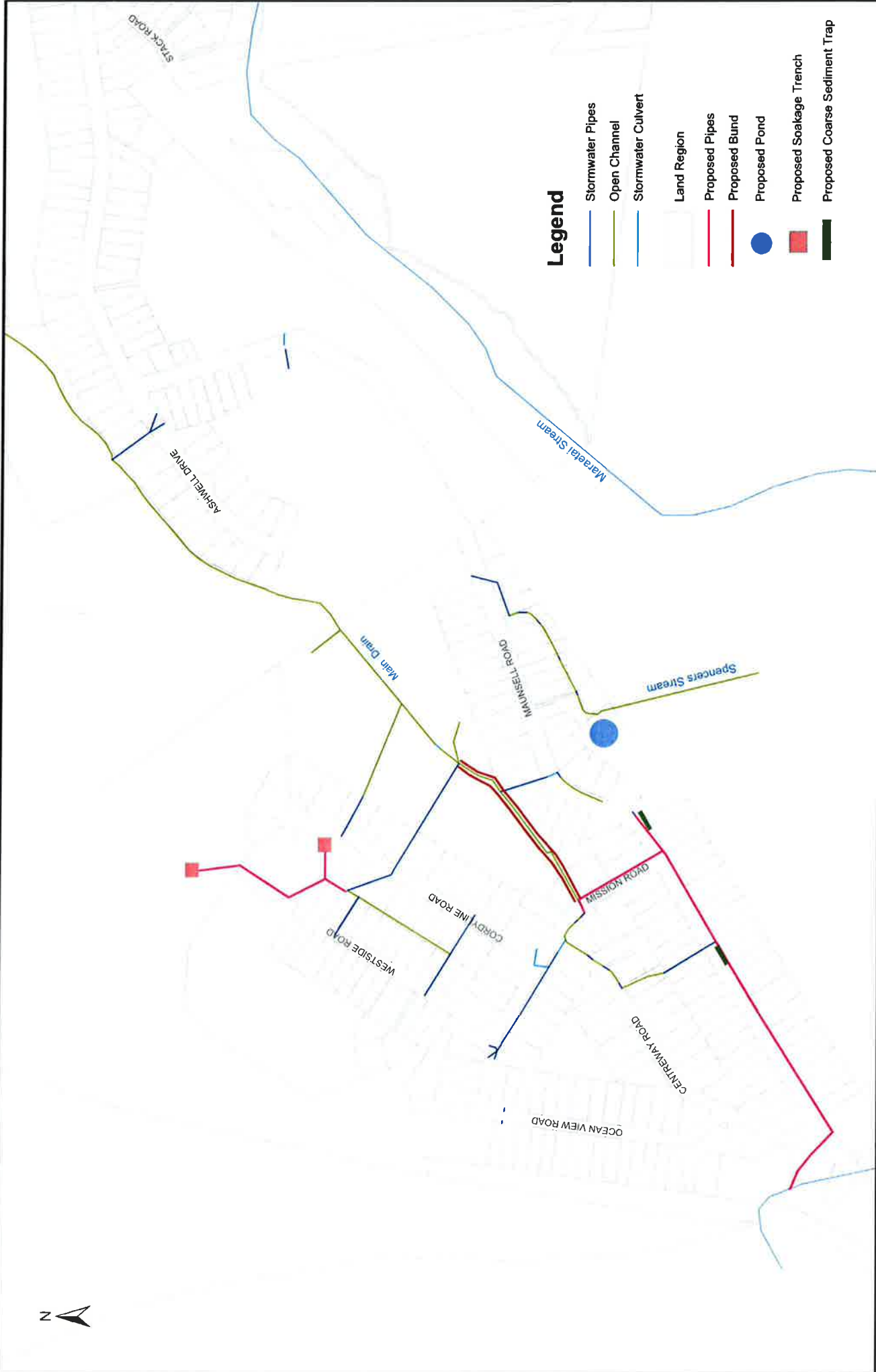
Issue	Description	Date	Approved	Modelled	Name	Date
				Modelled	J. Hain	July 2004
				Drawn	J. Chin	July 2004
				Checked		
				Approved		
				Scale	AS 1:5000	
				Projection	MZMS 1949	



Project: **Stormwater Catchment Management Plan**  
 Port Waikato Township  
 MPD 2 Year, 5 Year, and 100 Year ARI Floodplain

Information  
 Issued for: **Information**  
 Project Number: **V04517**  
 Sheet Number: **Figure 6**  
 Date: **Draft**

GIS file: G:\WV\WV04\Project\041517\GIS\Port\_Waikato\_Floodplain.mxd  
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### Legend

- Stormwater Pipes
- Open Channel
- Stormwater Culvert
- Land Region
- Proposed Pipes
- Proposed Bund
- Proposed Pond
- Proposed Soakage Trench
- Proposed Coarse Sediment Trap

			Project: <b>Stromwater Catchment Management Plan</b> Port Waikato Township Proposed Remedial Options	Sheet Number: Figure 7	Issue: Draft
Client:		Project Number: V04517		Information	
Date: July 2004		Project Number: V04517		Issue: Draft	
Name: J. Hillam J. Chan		Project Number: V04517		Issue: Draft	
Modelled: Checked: Approved:		Project Number: V04517		Issue: Draft	
Scale: 1:1000 Projection: NZMG 1949		Project Number: V04517		Issue: Draft	

GIS file: G:\WEB\WQ\Project\W04517\GIS\Port\_Waikato\_Eigen.mxd  
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## MEMORANDUM

To:	Ewan Higham - Building Team	Date:	6 November 2009
CC:	Norm Beazer - Planning & Development	File:	D450/11/CMP
From:	Godfrey White, Stormwater Manager Works & Services		
Subject:	MFL'S Port Waikato		

The following recommendations are based on a draft CMP prepared for the Port Waikato Catchment by City Design July 2004 Ref: V04517.

The recommendations apply to the modelled area being generally from No 120 Maunsell Road eastwards. This area is drained by the main central drain that discharges to the Waikato River via a pump station situated in the Maraeti Bay Reserve. Modelling indicated that for a 100 year ARI storm event, peak flood levels would reach RL 2.32 in the central basin area, with no allowance being made for climate change, and existing pumps assumed operative. To reduce flood levels to the base level in the main drain would take 5 days of continuous pumping.

1. The following Minimum Floor Level (MFL) is recommended for all houses within the modelled area. In particular this will apply to all properties identified as having potential inundation reference FDC Hazard Register.

Modelled Level	2.32
Additional Risk Factor	0.18
Normal Freeboard	0.50
<b>MFL = R.L</b>	<b>3.00</b>

2. In addition to allow overland flows to reach the main drain developments should ensure adequate flow paths are preserved or provided for with floor levels a minimum of 500mm above the flow paths.
3. For development within the inundation zone, raising of ground levels by filling is not permitted without a specific consent. Filling will reduce available flood storage area and raise flood levels.

For further assistance and or additional information please contact Council's Stormwater Manager or Development Engineer.



Subject:

Godfrey White  
**Stormwater Manager**