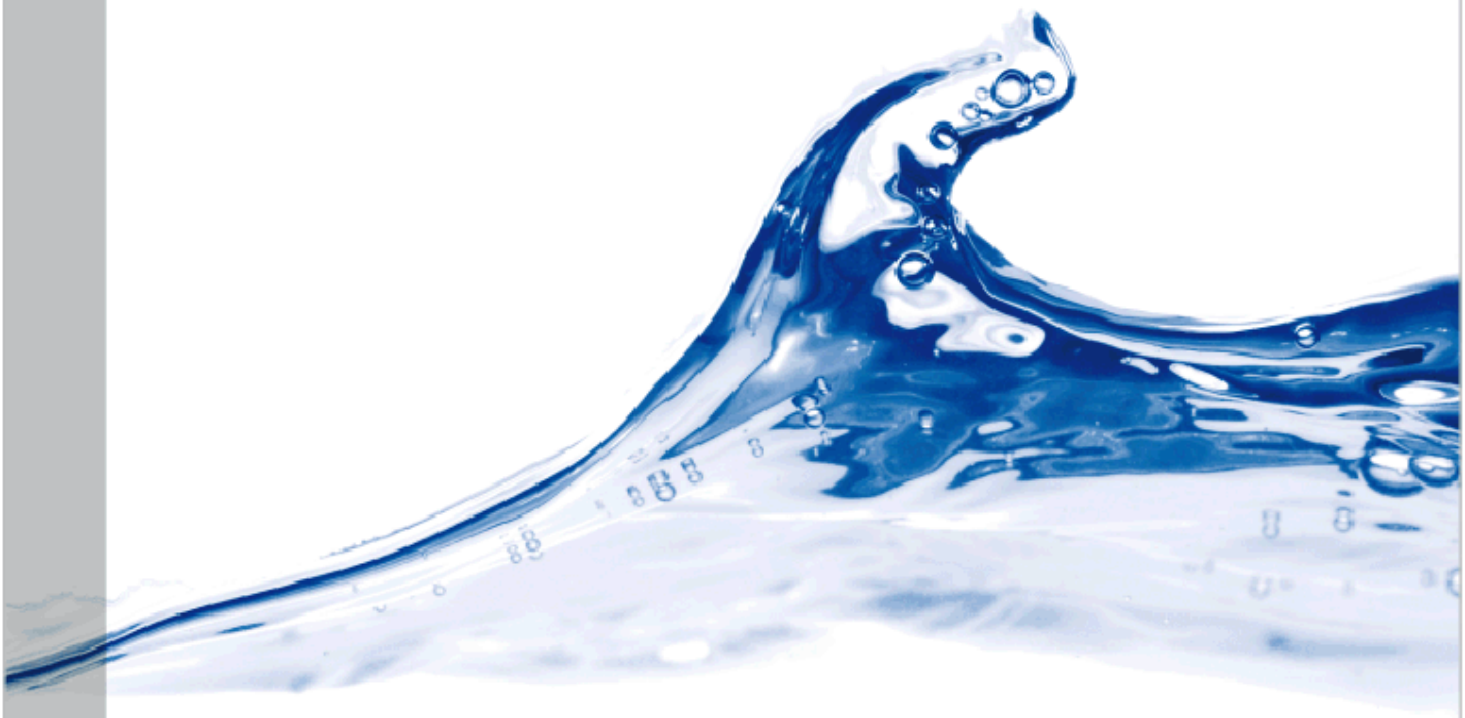
Martinborough Wastewater Treatment Plant - Effluent Discharge Management Plan

South Wairarapa District Council

March 2014 – Working Draft



SOUTH WAIRARAPA DISTRICT COUNCIL

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QUALITY RECORD SHEET

Document Martinborough Wastewater Treatment Plant - Effluent Discharge Management Plan Martinborough Wastewater Treatment Plant - Effluent Discharge Management Plan – Working Draft

Reference R:\Projects\1250_Combined_Scheme_Review\500 Deliverables\510 Reports\Martinborough Resource Consent Application\Martinborough Effluent Discharge Management Plan.docx

Date March 2014

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Reviewed by	Checker name			
Approved by	Approvers name			

REVISION HISTORY

Version	Prepared by	Description	Date
Working Draft	Sarah Sunich	Effluent Discharge Management Plan	4 March 2014

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1.2 Purpose of Management Plan

2 LAND TREATMENT AND RIVER DISCHARGE PROCESS DESCRIPTION

2.1 Treatment Process

Make reference to OMM which will contains details on Treatment Process

2.1.1 Effluent Quality Criteria

Description of wastewater effluent quality required to meet Schedule 2 Condition 2&3 and Schedule 4: Condition 3.

2.2 River Discharge

2.2.1 Site Description

Brief description of the discharge channel and the Ruamahanga River

2.2.2 Pumping and Conveyance Infrastructure

Description of how the discharge process operates.

2.2.3 River Discharge Regime

Description of the discharge rates and linkage to the River flow data.

2.3 Stage 1 Adjacent Block Land Treatment

2.3.1 Site Description

Brief description of the Adjacent block Site.

2.3.2 Pumping and Conveyance Infrastructure

Description of the pumping and conveyance infrastructure to the Adjacent Block.

2.3.3 Irrigation Infrastructure

Description of application method to be used.

2.3.4 Land Irrigation Regime

Description of the timing and volume of wastewater application to land, including specifically how the requirements of Schedule 4: Condition 1 & 2, will be achieved).

2.4 Stage 2 Pain Farm Land Treatment

2.4.1 Site Description

2.4.2 Pumping and Conveyance Infrastructure

2.4.3 Irrigation Infrastructure

2.4.4 Deficit Storage

2.4.5 High Flow Discharge

2.4.6 Land Irrigation/Storage Regime

3 OPERATIONAL MANAGEMENT AND MAINTENANCE OF DISCHARGE INFRASTRUCTURE

3.1 Water Discharge Management

3.1.1 River Flow

3.1.2 Effluent Discharge Flow Rates

3.1.3 Discharge Channel Maintenance

3.2 Land Treatment Management

Methods and procedures of how the system will be operated and maintained including: the selection of crops and/or grazing regimes, high wind speed shut-down, monitoring of soil moisture status and climatic conditions, monitoring of application rates and volumes applied, monitoring of effluent quality.

3.2.1 Weather Climate Reporting

A method for ascertaining the climate conditions prior to and during irrigation.

3.2.2 Soil Management

A method for ascertaining the soil moisture status prior to and during irrigation. Management of irrigation scheme to avoid ponding and/or surface runoff of irrigated effluent.

3.2.3 Hydraulic Application Rate

A system to log the daily applications including application area and zone applied to, duration, time and volume irrigated.

3.2.4 Nutrient Loading Rate

A description of projected daily and annual hydraulic and nutrient (nitrogen) loading rates;

3.2.5 Pasture and Crop Management

Crop selection description and management procedures for maintaining the crop in good health and maximise nutrient uptake rates and crop yields.

Harvesting techniques described, harvesting schedule, and with-holding period information.

3.2.6 Fertiliser Management

3.2.7 Grazing

At this stage no grazing is proposed.

3.2.8 Buffer Zones

Identification of "no spray zones".

3.2.9 High Speed Wind Shut-down

Description of how the automated wind shut-down will be operated and climatic condition triggers for irrigation ceasing to manage spray drift.

3.2.10 Odour Management

This section will reference the Odour Management Plan.

3.2.11 System Maintenance

4 OPERATIONAL MONITORING AND REPORTING

4.1 Discharge Monitoring

4.1.1 Flow Monitoring

Monitoring records of days of land irrigation and river water discharge, wastewater volumes irrigated on those days.

4.1.2 Quality Monitoring

Monitoring effluent quality from the UV disinfection unit as per the schedule in the consent. Procedures for collecting samples assuming the operators will be undertaking this sampling, parameters to be monitored and frequency to be monitored. Procedure for documenting results.

4.2 Soil Moisture Monitoring

Monitoring and record keeping of soil moisture.

4.3 Site Inspection

Include a schedule of regular and irregular site inspection requirements for the river discharge and land treatment components.

4.3.1 Regular site walkovers

4.3.2 Inspection after Heavy Rain

4.3.3 Odour Monitoring

Reference to procedures set out in the Odour Management Plan for regular site walkover procedures and responding to odour incidences.

4.4 Complaints Register

A centralised record of any complaints associated with the system and procedure for responding to complaints.

4.5 Environmental Monitoring

This section will reference a separate Environmental Monitoring Programme that will provide details on the following:

- Soil Monitoring - Location of soils to be monitored and their variability across the site;
- Groundwater Monitoring – Location of piezometers to be monitored and procedure for monitoring and reporting
- River water quality monitoring – Location of river sampling sites, methods to be used to monitor and report

4.6 Reporting

4.6.1 Quarterly Reporting

4.6.2 Annual Reporting

4.6.3 Notification of an Exceedence of Consent Conditions

5 CONTINGENCY MEASURES

5.1 Excess Flow

5.2 Pump Failure

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6.2 Contacts

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SITE INSPECTION CHECKLIST

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SITE INSPECTION SCHEDULE AND MONITORING SCHEDULE