



Date: Tuesday, 14 February 2017
Time: 1.30pm
Location: Council Chamber, Wairoa District Council,
Coronation Square, Wairoa

AGENDA

Late Reports

Ordinary Council Meeting

14 February 2017

Fergus Power
Chief Executive Officer

The agenda and associated papers are also available on our website: www.wairoadc.govt.nz

For further information please contact us 06 838 7309 or by email info@wairoadc.govt.nz

Order Of Business

8 **General Items**.....3
 8.1 Wairoa Wastewater Consent Update 3

Recommendation | *That in accordance with Section 46A (7) of the Local Government Official Information and Meetings Act 1987 the item **Wairoa Wastewater Consent Update** be considered given the item had not come to hand at the time of Agenda compilation and consideration of this matter is required now in order to respond within the timeframe allowed.*

8 GENERAL ITEMS

8.1 WAIROA WASTEWATER CONSENT UPDATE

Author: Jamie Cox, District Engineer

Authoriser: Fergus Power, Chief Executive Officer

Appendices: 1. Wairoa Wastewater Re-consenting - Task Scope for Consenting

1. PURPOSE

- 1.1 To provide Council with a progress update on this project
- 1.2 To seek Council's support for the establishment of a stakeholder group which will work closely with the project team in the community engagement and optioning process leading to the selection of the best practicable option (BPO).

RECOMMENDATION

The Engineering Manager RECOMMENDS that Council review and receive information within this report.

EXECUTIVE SUMMARY

The Wairoa wastewater consenting project will be taken through a consultation process over the next six months culminating in the selection of a BPO.

2. BACKGROUND

- 2.1 The Wairoa municipal wastewater discharge will be due for re-consenting in 2019. The processing of the resource consents involved will be undertaken by Hawke's Bay Regional Council and potentially the Minister of Conservation (depending on whether there is a discharge into the coastal marine area).
- 2.2 The Wairoa wastewater re-consenting project is under the coordination and overall technical direction of the author. Previously the initial broad stages of the project plan have been reported to Council. Attached is the work scope outline required for the project.
- 2.3 Technical investigation have been ongoing to provide information for a robust consultative process with Tangata Whenua and the wider community, in order to select a discharge option which is the BPO.
- 2.4 A public consultation schedule will unfold over the next six months and it is anticipated that feedback will lead to the selection of a BPO in the last quarter of 2017.

3. PROGRESS TO DATE

- 3.1 Neil Cook of Rationale Consultants has been engaged to assist with project management, business case development and the public consultation process. Options associated with external funding will also be pursued.
- 3.2 In order to ensure a robust optioning process is carried out, it is proposed to form a stakeholder group which will allow a tightly focused representative group to work alongside the project team in optioning toward the BPO. Our intentions is for

memberships to include 2 Councillors, 2 members of MSC, 1 member from AFFCO, 1 member from the business community, 1 youth member and 1 from a senior citizens group.

4. OPTIONS

- 4.1 The options identified are: This paper is for information purposes and options do not need to be considered.

5. CONCLUSION

- 5.1 Lodgement of a draft resource consent application with HBRC is expected by mid 2018 with final lodgement required by October 2018.

6. CORPORATE CONSIDERATIONS

What is the change?

- 6.1 This paper is for information purposes only.
- 6.2 The proposed stakeholder group is consistent with the Annual Plan, and the work has been planned for.

Compliance with legislation and Council Policy

- 6.3 Long Term Plan 2015-2025 – as above
- 6.4 District Plan – N/A
- 6.5 Economic Development Strategy – N/A
- 6.6 Other Council Policies – N/A
- 6.7 Relevant Legislation – There is a statutory requirement to procure resource consents.

What are the key benefits?

- 6.8 The development of a long term wastewater discharge for the Wairoa community will assist the consenting process.

What is the cost?

- 6.9 Costs associated with the re-consenting project have been provided for the Long Term Plan.

What is the saving?

- 6.10 N/A

Who has been consulted?

- 6.11 Consultation has started and a strategy has been developed.
- 6.12 Community engagement and views will be a key requirement to informing decisions to be made with this project
- 6.13 Consultation will be ongoing over the duration of this project.
- 6.14 Tangata whenua engagement is a critical element of this project. While already provided for, direction and assistance will be sought from the MSC.

Service delivery review

6.15 N/A

Maori Standing Committee

6.16 The MSC will be extensively involved with this project.

7. SIGNIFICANCE

7.1 The Wairoa Wastewater Consent process triggers a number of criteria set in terms of significance and engagement. Notably the 'wastewater network as a whole' is identified as a strategic asset in schedule two of the Significance and Engagement Policy. As such, the establishment of the proposed stakeholder group goes some way towards ensuring Council meets the obligations under it's Significant & Engagement Policy.

8. RISK MANAGEMENT

8.1 The strategic risks (e.g. publicity/public perception, adverse effect on community, timeframes, health and safety, financial/security of funding, political, legal – refer to S10 and S11A of LGA 2002, others) identified in the implementation of the recommendations made are as follows:

- a. At an early stage of this project (7 July 2016) a risk workshop involving the project team was undertaken. This highlighted processes and opportunities, as well as work stream requirements that needed to be considered to ensure the successful outcome of the project.

Further Information**Background Papers**

None at this stage

References (to or from other Committees)



Nil

Confirmation of statutory compliance

In accordance with section 76 of the Local Government Act 2002, this report is approved as:

- a. containing sufficient information about the options and their benefits and costs, bearing in mind the significance of the decisions; and
- b. is based on adequate knowledge about, and adequate consideration of, the views and preferences of affected and interested parties bearing in mind the significance of the decision

Signatories

	
Jamie Cox Author	Fergus Power Approved by

Wairoa Wastewater Re-Consenting Task Scopes for Consenting

Prepared for

Wairoa District Council

Prepared by

L E W E
Environmental
I m p a c t

February 2017
Revision 6





Wairoa Wastewater Re-Consenting Task Scopes for Consenting

Wairoa District Council

This report has been prepared for the Wairoa District Council by Lowe Environmental Impact (LEI). No liability is accepted by this company or any employee or sub-consultant of this company with respect to its use by any other parties.

Quality Assurance Statement		
Task	Responsibility	Signature
Project Manager:	Hamish Lowe	
Prepared by:	Peter Hill/Angela Lane	
Reviewed by:	Hamish Lowe	
Approved for Issue by:	Hamish Lowe	
Status:	Draft/Preliminary/Final	

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Ref: RE-10292-WDC-Task_Scopes-Revision6-170201.docx

Job No.: 10292

Date: February 2017

Revision Status			
Version	Date	Author	What Changed and Why
6	01/02/2017	AL	Update task and add couple new ones.
5	23/08/2016	PH	Re-allocation of tasks.
4	01/08/2016	PH	Scopes revised to more closely specify outputs.
3	03/06/2016	PH	Client corrections; focus moved to initial tasks.
2	13/05/2016	HL	Revision for discussion and approval.

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1 OVERVIEW

This summary provides an overview of the Wairoa Wastewater Consenting (“WWWC”) project, and more specifically investigations and consenting requirements.

It defines the project purpose and objectives, as well as identifying the scopes of individual projects and reports that are to be used for the development of consent applications and design modifications for the WWWC.

This summary addresses the “Initial” tasks identified. Further “Detailed tasks” will be identified and developed in the light of the findings of these Initial tasks. It is intended that this summary will be updated as needed to include or amend scopes.

References at the beginning of each of the scopes are to Phase (A, B etc) and to report or task number (1 = Report 1, 2 = Report 2, 3 = Report 3 etc).

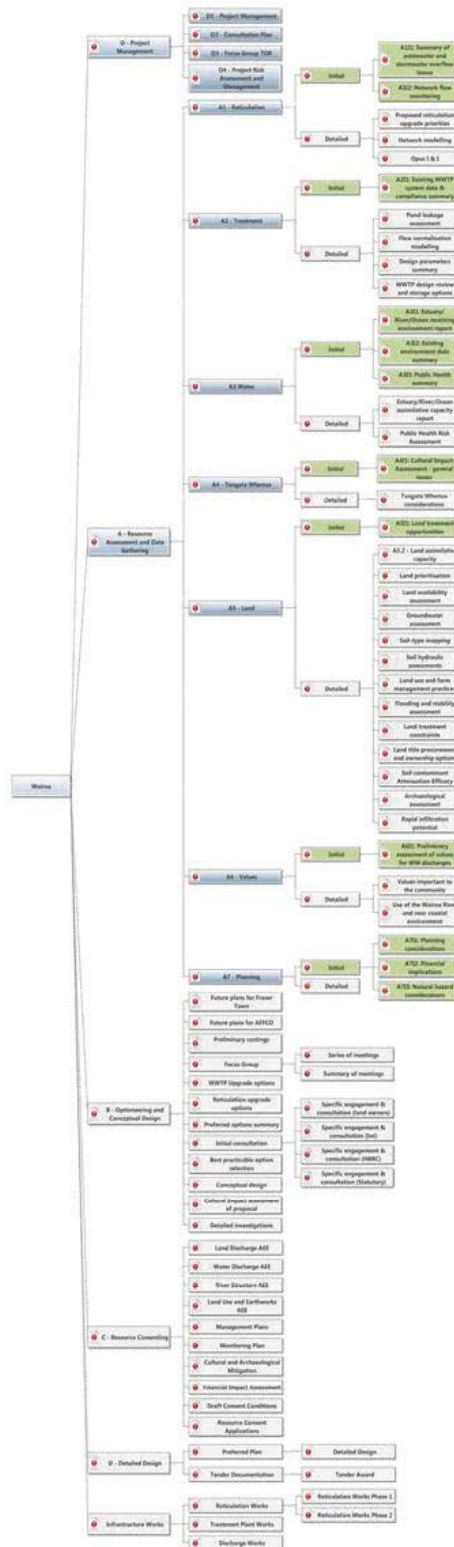
The reporting and delivery of the various tasks is to be carried out by a number of parties. The relevant parties are identified for the individual outputs. Additional parties may need to be engaged as the project progresses. This may also include indirect contributions and information gleaned by association and consultation, such as outputs from community involvement.

The figure below sets out how it is envisaged the various reports to be generated relate to each other.



Wairoa WWTP Re-consenting - Project Overview
Revised 14/2/2016

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2 WAIROA WWTP CONSENTING PROJECT STRATEGY

Revised 03/06/2016

Vision of what is to be achieved:

- Develop and obtain regulatory approval of a long term sustainable wastewater treatment and discharge system for the Wairoa community.

Cultural Impact:

- Ensure development of a wastewater management system that is acceptable to local tangata whenua.

Environmental Impact:

- Ensure that a wastewater discharge system is developed that can operate year round which does not have an adverse effect on the local receiving environment.

Recreational and Social Impact:

- Ensure that a wastewater discharge system is developed that has minimal impact of the greater receiving environment and does not cause or add to restrictions on recreational use of local waterways and land.

Financial Impact:

- Ensure that a wastewater management and discharge system is developed that is affordable to the community and within the LTP budgets.

Things that will not change:

- The need for Wairoa to be able to discharge treated wastewater.

Things that may change:

- The relative size and impact of wastewater contributions from commercial and industrial enterprises.

Timing:

- Initial Investigations -Starting August 2016
- Community consultation -Starting January 2017
- Completion of initial investigations -January 2017
- Concept design -April 2017
- Start Further investigations -May 2017
- Preliminary design -July 2017
- Costings -September 2017
- Council approval of costs -October 2017
- Draft consent application submitted -December 2017



3 REPORTING REQUIREMENTS AND STRUCTURE

3.1 Report Requirements

In order to make informed decisions with regard to re-consenting Wairoa's wastewater treatment and discharge system, a series of reports are required. The purpose of the reports is to summarise available information or to bring together information on which design decisions will be based as the project develops. Reports will often contain relevant information for subsequent investigations and reports, which means that the future use of each report's contents is an important factor that guides the scope and outcomes of each report. The ultimate goal is to prepare a comprehensive set of documentation that is suitable for lodging as supporting information for resource consent applications to HBRC and WDC for the re-consenting of the Wairoa WWTP treatment and discharge systems.

3.2 Report Structure

To assist with collating and managing reports, they will all follow the same generic structure as closely as possible. This includes the following:

1. Executive Summary (What, why, who, Analysis, and Recommendations);
2. Introduction;
 - a. Purpose;
 - b. Background;
 - c. Scope;
3. Summary of Existing Facts and Information;
4. Data sources;
5. Methodology;
6. Analysis (factual);
7. Discussion (interpretation);
8. Conclusions;
9. Recommendations;
10. References; and
11. Appendices (figures, data, etc).



4 PROJECT SCOPES

4.1 O – PROJECT MANAGEMENT

O1 - Project Management – Technical Coordination

Date:	3 June 2016
Name:	Project Management – Technical Coordination
Reference:	O1
Background:	The Wairoa wastewater treatment system requires re-consenting and a possible upgrade. The identification of a preferred option for re-consenting will require a number of technical reports to be prepared by various organisations. This will require organisation to ensure that reporting is to pre-determined scopes and budgets, and that timelines are managed.
Purpose:	In conjunction with the client, coordinate and assist with managing the Wairoa re-consenting project, and in particular manage the technical inputs to the project.
What to Cover:	<ul style="list-style-type: none"> • Liaison with Project Owner. • Coordination of technical reporting by all personnel involved. • Assist with and attend project and team meetings as required.
Exclusions:	•
Contributors	LEI, JS, and other external parties as needed.
Project Manager:	HL
Who to Contact:	As needed
Who not to Contact:	Persons not directly involved in the preparation of technical inputs.
Timing:	Starts 1 May 2016, continues until project completion.
Costs:	LEI – estimate approximately \$1,500 per month, but variable depending on tasks.
Type of Output:	Fortnightly progress updates to Project Owner during project team meetings.
Reference Material:	As needed.
Status:	Ongoing



O2 – Consultation Plan

Date:	3 June 2016
Name:	Consultation Plan
Reference:	O2
Background:	The Wairoa wastewater treatment system requires re-consenting and a possible upgrade. The preferred option will require the engagement with the community and interested stakeholders to assist with deciding on a preference of proposed system and its impacts (social, cultural, financial and environmental).
Purpose:	Provide a plan that identifies the methodology for engagement with and reporting of communication with the community and interested and affected stakeholders.
What to Cover:	<ul style="list-style-type: none"> • Provide a plan that identifies the method for engagement with statutory stakeholders, the community and interested parties. • The plan will cover the difference between engagement to develop options, rather than the separate issue of engagement to assess the effects. • Iwi engagement is critical. • Will address LGA and RMA requirements.
Exclusions:	<ul style="list-style-type: none"> • This Task is to prepare a plan, not to carry it into effect, which is provided for elsewhere.
Contributors	Project Owner, LEI.
Project Manager:	HL
Who to Contact:	As needed
Who not to Contact:	
Timing:	Started 2015
Costs:	Previous work
Type of Output:	Report.
Reference Material:	As needed.
Status:	Draft completed, revisions made and has been returned to the Project Owner for approval and adoption.



O3 – Stakeholder Group Terms of Reference

Date:	31 January 2017
Name:	Stakeholder Group Terms of Reference.
Reference:	O3
Background:	The Wairoa wastewater treatment system requires re-consenting and a possible upgrade. Engagement with key community stakeholders at an early stage is a sound method to assist with informing of the community's preferred options. It also serves as a means for disseminating technical information.
Purpose:	To provide a plan for the establishment and rules for engaging with clearly identifiable members of the community.
What to Cover:	<ul style="list-style-type: none"> • Who to be involved; • Rules of involvement; • Method for running the meetings; and • Reporting requirements.
Exclusions:	<ul style="list-style-type: none"> • Carrying the Stakeholder Group into effect, which will be by Project Owner's nominee, and covered in A6I1 below. • General/wider public consultation.
Contributors	WDC/LEI
Project Manager:	HL to coordinate preparation of ToR.
Who to Contact:	As needed
Who not to Contact:	-
Timing:	Start January 2017.
Costs:	\$3,000
Type of Output:	Summary memo.
Reference Material:	As needed.
Status:	Underway.



O4 - Project Risk Assessment and Management

Date:	25 July 2016
Name:	Project Risk Assessment and Management
Reference:	O4
Background:	The Wairoa wastewater treatment system requires re-consenting and a possible upgrade. The preferred option for re-consenting will require a number of technical reports to be prepared by various organisations, and sensitive engagement with a number of interested parties. This incurs a large number of risks to the project that will require careful planning and management to ensure that progress, direction, budgets, and timelines are maintained.
Purpose:	In conjunction with the client, assess the risks to the Wairoa re-consenting project, plan risk management methods to reduce the risks, and in particular implement and monitor the risk management processes for the project.
What to Cover:	<ul style="list-style-type: none"> • Identification of all risks from project complexity and party engagement; • Proposed risk management methods to reduce each identified risk; • Implementation of proposed risk management methods, including team discussions and changes as needed; and • Monitoring the effectiveness of all implemented risk management methods.
Exclusions:	•
Contributors	LEI, WDC project team.
Project Manager:	HL
Who to Contact:	As needed
Who not to Contact:	
Timing:	Start July 2016.
Costs:	LEI \$6,000
Type of Output:	<ul style="list-style-type: none"> • Risk table; • Memos between Project Manager and Project Owner as required.
Reference Material:	As needed.
Status:	Draft risk list prepared; mitigation proposal still requires completion. With Client for review.



4.2 A – RESOURCE ASSESSMENT AND DATA GATHERING

A1I1 – Summary of wastewater and stormwater overflow issues

Date:	3 June 2016
Name:	Summary of wastewater and stormwater overflow issues.
Reference:	A1I1
Background:	The Wairoa wastewater treatment system requires re-consenting and a possible upgrade. The major consent non-compliance issue with the present system, and a major issue to be addressed in re-consenting, is the recurrence of wastewater overflows to the Wairoa River, from manholes and pump stations, during times of heavy rain and high river level.
Purpose:	To characterise the issue of uncontrolled overflows from the Wairoa municipal wastewater system in the light of available and existing information, and to recommend options to manage the issue.
What to Cover:	<ul style="list-style-type: none"> • Information on the location, timing, preceding rainfall and river level in relation to overflow events; • Information on the effects of overflows; • Assessment of causes of overflows; • Identification of priority actions required to reduce, and ultimately eliminate, the un-managed overflows; and • Recommendation of a program of investigations to identify specific works requirements for the reduction of the overflows.
Exclusions:	<ul style="list-style-type: none"> • Assessment of the Wairoa piped stormwater network.
Contributors:	LEI, WDC.
Project Manager:	HL
Who to Contact:	As needed
Who not to Contact:	Individual property owners.
Timing:	Started mid-2015; final report provided to Project Owner October 2015.
Costs:	\$25,500
Type of Output:	Report and Recommendations.
Reference Material:	WDC asset information.
Status:	Completed.

**A1D1 – Network flow monitoring**

Date:	25 July 2016
Name:	Network flow monitoring
Reference:	A1D1
Background:	<p>The Wairoa wastewater treatment system requires re-consenting and a possible upgrade. In order to confirm wastewater flow rates for the purposes of resource consenting and possible reticulation upgrades, as well as to assess the location and severity of possible stormwater inflows, it will be necessary to monitor wastewater flows at selected points within the sewer network.</p> <p>Recommendations were made in a Memorandum prepared as part of Task A1I1 (Overflow Issues) on the locations of 18 monitoring points, which together covered almost the entire Wairoa sewer catchment.</p>
Purpose:	To establish the magnitude, and extent of variability, of flow regimes within the Wairoa municipal sewer network.
What to Cover:	<ul style="list-style-type: none"> • Design of a program to enable the tabulation and interpretation of flow data to be gathered from selected sub-catchments within the Wairoa sewer network; • Selection of priority sub-catchments; •
Exclusions:	<ul style="list-style-type: none"> • Recording of data is to be undertaken by a contractor to WDC.
Contributors:	JS? + NC + others
Project Manager:	HL/NC
Who to Contact:	
Who not to Contact:	<ul style="list-style-type: none"> • Persons not directly involved in the Task; • Individual or collective property owners.
Timing:	<p>.Data analysis and report preparation will follow once data has been collected.</p> <ul style="list-style-type: none"> • Start as soon as possible; • Proposal for actual flow monitoring to be presented to Engineering Manager for approval by 28 February 2017. • Engagement of resources to undertake flow monitoring to be undertaken as soon as proposal approved; • Flow data to be available for interpretation and modelling by 1 April 2017; • Summary of flows in various catchments by
Costs:	LEI \$TBA once worked out who doing what NC \$ TBA once worked out who doing what
Type of Output:	Report summarising flow and issues within different catchments.
Reference Material:	WDC sewer sub-catchment flow monitoring data.
Status:	Not started.



A2I1 – Existing WWTP system data & compliance summary

Date:	17 January 2017
Name:	Existing WWTP system data & compliance summary.
Reference:	A2I1
Background:	<p>The Wairoa wastewater treatment system requires re-consenting and a possible upgrade. Re-consenting will require verifiable information on the quality, quantity and timing of the present discharge from the WWTP.</p> <p>In order to assess any requirement to upgrade the Wairoa WWTP, the capabilities, limitations, and environmental effects of the current system needs to be assessed.</p>
Purpose:	<p>To provide a description of the existing Wairoa WWTP, and any limitations it may have for effective sewage treatment capability.</p> <p>Also, to identify and assess the available wastewater discharge monitoring data in order to:</p> <ul style="list-style-type: none"> • Identify any instances of incomplete or absent monitoring data; • Identify any instances of breaches of resource consent conditions; • Identify and summarise any trends of parameters over time; • Assess the overall sewage treatment performance of the Wairoa WWTP; and • Assess and comment on any apparent effects on the receiving environment (based on the observations of report A3I1).
What to Cover:	<ul style="list-style-type: none"> • Description of current treatment methods, including size, depth, design, and hydraulic retention time of each component of the plant; • Dimensions, performance, capacity, including any recent and potential for expansion; • Gather existing data on consent condition compliance; • Describe flaws and limitations of the current system and its operation; • Description of the existing discharge structure and its function, operation and condition; • Identify drivers for change to the existing system; • Assess relevant inflow and effluent monitoring data relating to the existing WWTP and its discharge receiving environment; • Assess data for completeness, errors, overall trends, compliance with current consent conditions, overall performance of the treatment plant, and environmental effects resulting from the effluent discharge.
Exclusions:	<ul style="list-style-type: none"> • Sources of I&I are addressed elsewhere, but the effects of I&I on WWTP performance and discharge characteristics may be addressed in this Task.
Contributors:	LEI; Aquanet; LG, Julia C.
Project Manager:	HL
Who to Contact:	WDC; HBRC Compliance personnel.
Who not to Contact:	-
Timing:	Can start immediately; completion by 28 February 2017.
Costs:	LEI \$15,000 (depending on WDC contribution)



Type of Output:	Report
Reference Material:	HBRC compliance reporting; WDC asset data; Report A3I1
Status:	Underway.

**A2I2 - Current outfall description**

Date:	31 January 2017
Name:	Current outfall description
Reference:	A2I2
Background:	<p>The Wairoa wastewater treatment system requires re-consenting and a possible upgrade. Re-consenting will require verifiable information on the quality, quantity and timing of the present discharge from the WWTP.</p> <p>In order to assess any requirement to upgrade the Wairoa WWTP, the capabilities, limitations, and environmental effects of the current outfall piping system needs to be assessed.</p>
Purpose:	<p>To provide a description of the current outfall system, its design, and recent inspections.</p> <p>Also, to identify and assess the benefits and limitations of such a system to:</p> <ul style="list-style-type: none"> • Assess any risk to current discharge flow rates • Effects of plumbing and obstruction of flow at the outfall
What to Cover:	<ul style="list-style-type: none"> • Description of the existing outfall system and its function, operation and condition; • Size and type of material of the outfall piping system • Investigative work undertaken (i.e. dive report details) • Describe benefits and limitations of the current system and its operation; • Identify drivers for change to the existing system; • Any consent applications/lodges for changes to the current system
Exclusions:	<ul style="list-style-type: none"> • Plant equipment and structures, this scope is limited to the outfall piping system only.
Contributors:	LG, KA, AL.
Project Manager:	HL
Who to Contact:	Brendan Cappely (Greenfield diving services), LG.
Who not to Contact:	Any person or organisation who is not a relevant source of factual data on the outfall piping system.
Timing:	Can start immediately; completion by 28 February 2017.
Costs:	LEI est \$5,000 to assist pulling project together.
Type of Output:	Memo
Reference Material:	Email thread from LG; Greenfield Diving Services Report 30 th May 2016
Status:	Not Started.



A3I1 – Estuary/ Ocean receiving environment

Date:	17 January 2017
Name:	Estuary/ Ocean receiving environment.
Reference:	A3I1
Background:	The Wairoa wastewater treatment system requires re-consenting and a possible upgrade. Consenting will require the assessment of discharge to water options. This will need to include an assessment of the capacity to safely receive nutrient and pathogen loading into the Wairoa River, its estuary, and ocean beyond.
Purpose:	<p>The determination of the current condition of the waters of the Wairoa River estuary and the ocean. This should include a commentary about the impact of the wastewater discharge over time and a brief discussion of the impact of AFFCO discharges.</p> <p>To produce a recommendation regarding ongoing monitoring of the estuary and ocean receiving environment with a focus on the ecological impacts and trace elements identified in bio-indicators. This will be produced from data and trends seen from monitoring in 2007, 2011 and 2017.</p>
What to Cover:	<ul style="list-style-type: none"> • A summary of water quality and biological trends in the Wairoa River and the estuary from 2007 - 2017; • Additional monitoring data for 2017 to show effects on the ocean receiving environment; • All technical and measurable aspects of the effect of the current discharge on the coastal marine environment to include sediment, biological effects, trace elements and water quality; • This report is to have a primarily ecological focus, and is to be considered in conjunction with the separate report on the physical and social history of the river mouth environment.
Exclusions:	<ul style="list-style-type: none"> • Social and cultural impacts, which are addressed elsewhere; • The physical history of the river mouth environment; • Planning aspects, which are addressed elsewhere.
Contributors:	Triplefin Consulting
Project Manager:	HL
Who to Contact:	Relevant sources of factual data on the Wairoa coastal marine area.
Who not to Contact:	Any person or organisation who is not a relevant source of factual data on the Wairoa coastal marine area.
Timing:	TBA
Costs:	LEI \$TBA Triplefin \$TBA
Type of Output:	Report
Reference Material:	As relevant; Report A3I2; previous Triplefin reports.
Status:	Underway.



A312 – Existing environment data summary

Date:	17 January 2017
Name:	Existing environment data summary.
Reference:	A312
Background:	The Wairoa wastewater treatment system requires re-consenting and a possible upgrade. If continuation of the present coastal marine discharge is to be considered, then both the quality of the receiving waters, and the effects of the discharge on that environment, need to be assessed. Additionally, the climatic variations within the Wairoa Region will have an effect on when and how discharging will occur.
Purpose:	To identify and assess water quality in the present Wairoa WWTP discharge receiving environment, with a focus on Wairoa River water quality, flows and tidal variations. .
What to Cover:	<ul style="list-style-type: none"> • Collect data on river flow and water quality characteristics; • Gather results of WDC water quality monitoring; • Gather results of HBRC water quality monitoring; • Gather any information available on impacts of wastewater overflows into the Wairoa River; • Collate climate data; and • Compile report from data collected.
Exclusions:	<ul style="list-style-type: none"> • Consent compliance issues (they are covered in A2I1); • Social and cultural perspectives, which are covered elsewhere.
Contributors:	LEI; Project Owner; Julia C
Project Manager:	HL
Who to Contact:	Sources of river water quality data. HBRC for environmental monitoring data.
Who not to Contact:	Persons or organisations which are not sources of factual river water quality data.
Timing:	Can start immediately; report by 28 February 2017
Costs:	LEI, \$10,000
Type of Output:	Report
Reference Material:	As may be obtained.
Status:	Underway.



A3D1 – Estuary/River/Ocean Assimilative Capacity

Date:	31 January 2017
Name:	Estuary/River/Ocean Assimilative Capacity
Reference:	A3D1
Background:	The Wairoa wastewater treatment system requires re-consenting and a possible upgrade. Consenting will require the assessment of discharge to water options. This will need to include an assessment of the capacity to safely receive nutrient and pathogen loading into the Wairoa River, its estuary, and ocean beyond. Consideration of the effects of the AFFCO meat works discharge needs to be considered in conjunction with municipal waste discharge.
Purpose:	<p>The determination of the assimilative capacity of the waters of the Lower Wairoa River, its estuary, and the ocean beyond to receive the Wairoa wastewater discharge; as well as a commentary about the impact of the wastewater discharge over time, using 2017 updated monitoring data. To identify when adverse effects to water quality and biology will occur, and alternatively what are the effects of decreasing/ diluting the discharge?</p> <p>Determine the likelihood of wastewater discharge at high river flow rates (i.e. times other than those specified in the resource consent) for the following reasons;</p> <ul style="list-style-type: none"> • Dilution effect • River activity will be minimal, minimising any chances of contamination
What to Cover:	<ul style="list-style-type: none"> • Nutrient load able to be received under varying flows, tidal sequences and lunar phases, in the context of existing upstream water quality; • Identify environmental and ecological values to consider and their critical contaminant thresholds. • Identify potential toxic or acceptable levels of heavy metals found in shellfish/invertebrates and compare to those results found in the receiving environment. • All technical and measurable aspects of the effect of the current discharge on the coastal marine environment.
Exclusions:	<ul style="list-style-type: none"> • Cultural perspectives on the Wairoa River estuary, which is addressed elsewhere.
Contributors:	Triplefin
Project Manager:	HL
Who to Contact:	As needed.
Who not to Contact:	Any person or organisation who is not a relevant source of factual data on the Wairoa ecological or environmental concerns.
Timing:	Can be started immediately. Completion by 1 April 2017
Costs:	LEI \$TBA Triplefin \$TBA
Type of Output:	Report
Reference Material:	As may be required. Including A3I1 and A3I2.
Status:	Not Started.



A313 – Public Health Summary

Date:	17 January 2017
Name:	Public health summary.
Reference:	A313
Background:	The Wairoa wastewater treatment system requires re-consenting and a possible upgrade. One of several options to be considered is continuation of the status quo, with or without changes. This involves a discharge into the Wairoa River estuary, at night and on a falling tide. A factor to be addressed when considering continuation of this estuary discharge will be whether or not any public health issues have arisen which could be attributed to the existing wastewater discharge.
Purpose:	The assessment of the extent to which any public health issues have arisen which could be attributed to the existing Wairoa wastewater discharge.
What to Cover:	<ul style="list-style-type: none"> • Collect any Environmental Health Officer (WDC) reports and anecdotes; • Collect any DHB reports and anecdotes; Collect any relevant HBRC information on bathing water quality information; • Collect any Local GP opinions and anecdotes; and • Compile report and conclusions/recommendations.
Exclusions:	<ul style="list-style-type: none"> • Impacts on kai moana or similar, which are addressed elsewhere; • Uninformed public opinion.
Contributors:	HL; AL
Project Manager:	HL
Who to Contact:	<ul style="list-style-type: none"> • Environmental Health Officer (WDC); • DHB; • HBRC; and • .
Who not to Contact:	Anyone else.
Timing:	Can start immediately; memo by 3 February 2017
Costs:	LEI \$6,000
Type of Output:	Memo
Reference Material:	HB DHB Report on Wairoa Gastro outbreak, HBRC River Quality reports, minutes from HB DHB meeting Dec 2016
Status:	Underway.



A314 - Additional Wairoa River monitoring

Date:	18 January 2017
Name:	Additional Wairoa River Monitoring
Reference:	A314
Background:	The Wairoa wastewater treatment system requires re-consenting and a possible upgrade. If continuation of the present coastal marine discharge is to be considered, then both the quality of the receiving waters, and the effects of the discharge on that environment, need to be assessed.
Purpose:	To identify and assess water quality in the present AFFCO discharge receiving environment and additionally assess the Wairoa WWTP discharge receiving environment, and any quantifiable effects on that water quality that arise from these discharges.
What to Cover:	<ul style="list-style-type: none"> • Collect data on water quality characteristics; • Gather results from Linnaeus water quality monitoring; • Gather any information available on impacts of AFFCO discharges into the Wairoa River; and • Compile report from data collected.
Exclusions:	<ul style="list-style-type: none"> • Cultural perspectives on the Wairoa River estuary, which is addressed elsewhere. • Public Health issues which is addressed elsewhere. •
Contributors:	LEI; Linnaeus
Project Manager:	HL
Who to Contact:	Linnaeus to initiate additional monitoring sites; AFFCO for present and past river monitoring data.
Who not to Contact:	Persons or organisations which are not sources of factual river water quality data.
Timing:	Can be started immediately. Completion by 1 April 2017
Costs:	LEI \$TBS Linnaeus \$TBA
Type of Output:	Report
Reference Material:	As may be required.
Status:	Not Started.



A411 – Cultural Impact Assessment – General Issues

Date:	17 January 2017
Name:	Cultural Impact Assessment – general issues
Reference:	A411
Background:	The Wairoa wastewater treatment system requires re-consenting and a possible upgrade. The continuation of the current discharge into the Wairoa River estuary is one of the options to be considered. The Regional Coastal Environment Plan of HBRC is the document against which any estuary discharge would be assessed, and this allows the possibility of such a discharge only if that is the best practicable option, and if there has been appropriate consultation with Iwi and the wider community.
Purpose:	To establish the potential cultural implications and impacts on options for the Wairoa municipal wastewater discharge.
What to Cover:	<ul style="list-style-type: none"> • Identification of relevant generic cultural values of tangata whenua with regard to wastewater discharges; • • Identification of how areas of significance in the immediate of wastewater discharges can influence the method of discharge; • Potential cultural effects of land discharge options; and • Potential cultural effects of water discharge options.
Exclusions:	<ul style="list-style-type: none"> • Effects on cultural values of any proposed discharge system.
Contributors:	Jamie Ataria; LEI; WDC Iwi Liaison Officer..
Project Manager:	HL
Who to Contact:	Wairoa Hapu and Marae, as appropriate. MSC (Paul Kelly) for overall guidance, and for advice on resourcing and content.
Who not to Contact:	-
Timing:	Can start immediately
Costs:	Estimate \$15,000, subject to consultation requirements.
Type of Output:	Report.
Reference Material:	As may be considered relevant, including any Iwi Management Plans.
Status:	Not started.



A412 – Wairoa River Recreational Use Assessment

Date:	31 January 2017.
Name:	Wairoa River Recreational Use Assessment
Reference:	A412
Background:	The Wairoa wastewater treatment system requires re-consenting and a possible upgrade. The existing discharge of treated wastewater into the Wairoa River estuary is one of several discharge options that will need to be considered. Actual and potential relationships between any river or estuary discharge and recreational uses of the river and its margins will need to be taken into account when considering any future estuary discharge.
Purpose:	To characterise the use of the Wairoa River and its margins by Wairoa residents for recreational purposes. The use of a recreational survey involving all aspects of outdoor activities in Wairoa will minimise public dissatisfaction that could be created by including the Wairoa River and Estuary only.
What to Cover:	<ul style="list-style-type: none"> • Preparation of a Wairoa household survey to characterise recreational use of the Wairoa River in the reach from the upstream edge of Wairoa town to the sea; • Conduct the household survey door to door within Wairoa community; • Compile and analyse the results of the survey, and provide recommendations for ongoing provision of recreational amenities by WDC.
Exclusions:	<ul style="list-style-type: none"> • Specific cultural activities and expectations, which are addressed in Task A411.
Contributors:	LEI; WDC.
Project Manager:	HL
Who to Contact:	<ul style="list-style-type: none"> • Identified sample households; • Identified recreational organisations and groups; • Identified businesses; and • Identified public authorities.
Who not to Contact:	- Contacts outside of the Wairoa township
Timing:	<ul style="list-style-type: none"> • Should start preparation step as soon as approved by client, and preferably by end December 2016; (Peter and Kitea); • Should start actual survey as soon as survey format and content approved by client, preferably by end January 2017; (Kitea and WDC resources); • Should undertake results analysis and prepare report and recommendations as soon as survey completed, with report and recommendations to be with client by end February 2017. (Peter).
Costs:	LEI \$10,000
Type of Output:	Report
Reference Material:	As may be required.
Status:	Draft Survey to be reviewed by client.



A5I1 – Land Treatment Opportunities

Date:	31 January 2017
Name:	Land treatment opportunities
Reference:	A5I1
Background:	The Wairoa wastewater treatment system requires re-consenting and a possible upgrade. The continuation of the current discharge into the Wairoa River estuary is one of the options to be considered, but this will only be consentable if it is shown to be the best practicable option. In order for WDC to agree on a BPO, other credible options for the wastewater discharge will also need to be evaluated, and land discharge is the main credible alternative to an estuary discharge.
Purpose:	The identification of land treatment options for the Wairoa municipal wastewater discharge, and of the implications on environment, culture, social values and finance of those options.
What to Cover:	<ul style="list-style-type: none"> • Broad assessment of land assimilative capacity in the Wairoa locality; • Broad assessment of priorities of land suitability for land treatment; • Broad assessment of land availability, including indicative costs; • Identification of 5 options for further more detailed consideration; • Consideration of approximate land area requirements and wastewater discharge days and volumes; and • Consideration of environmental constraints.
Exclusions:	<ul style="list-style-type: none"> • Make no recommendation of a favoured option, but provide a factual basis upon which WDC may select favoured options for further consideration.
Contributors:	LEI, KB; AL.
Project Manager:	HL
Who to Contact:	Sources of relevant information, including real estate personnel.
Who not to Contact:	Individual landholders.
Timing:	Can start as soon as A2I1 Task (existing system summary) has been completed; start could be 1 September 2016, with completion by 28 February 2017
Costs:	\$15,000.
Type of Output:	Report.
Reference Material:	As may be considered relevant.
Status:	Underway



A6I1 – Preliminary Assessment of Values for WW Discharges

Date:	17 January 2017
Name:	Preliminary assessment of values for WW discharges.
Reference:	A6I1
Background:	The Wairoa wastewater treatment system requires re-consenting and a possible upgrade. The preferred option will require the engagement with the community and interested stakeholders to assist with deciding on a preference of proposed system and its impacts (social, cultural, financial and environmental). To this end, Task O3, "Stakeholder Group Terms of Reference", sets up a Stakeholder Group, and what is now required is for the Stakeholder Group to engage with the Project Team to facilitate this preliminary assessment of community values with regard to the Wairoa municipal wastewater discharge options.
Purpose:	A structured assessment of community values relating to Wairoa municipal wastewater discharge options.
What to Cover:	<ul style="list-style-type: none"> • Convening of meetings of the Stakeholder Group; • Preparation of agendas, and provision of facilities for Stakeholder Group meetings; • Preparation of records of the proceedings of Stakeholder Group meetings; and • Identification and prioritisation of community values that may be impacted by wastewater discharge options. <ul style="list-style-type: none"> • A parallel task may want to be run with iwi, which would be in addition to the CIA task identified in A4I1.
Exclusions:	<ul style="list-style-type: none"> • This is not a weighing of discharge options. It is to focus on the community values and their respective weightings.
Contributors:	LEI, JC- Project Owner.
Project Manager:	HL
Who to Contact:	Stakeholder Group, through channels established in Task O3.
Who not to Contact:	Anyone outside the Stakeholder Group, or other than as laid out in Task O3.
Timing:	Can start as soon as Stakeholder Group is established under Task O3.
Costs:	Depends on extent of LEI involvement. If only to prepare the agendas and summary report, \$3,000. If to assist with meeting attendances and preparation, then more like \$13,000.
Type of Output:	Report
Reference Material:	Agendas and minutes of Stakeholder Group meetings.
Status:	Not started. Waiting on A4I1 Cultural Assessment



A7I1 – Planning Considerations

Date:	17 January 2017.
Name:	Planning Considerations
Reference:	A7I1
Background:	The Wairoa wastewater treatment system requires re-consenting and a possible upgrade. Planning and consenting requirements are likely to influence the choice and operation of the preferred system. Their early identification will help to direct the options chosen.
Purpose:	The broad identification of the issues to be addressed in meeting planning and consenting requirements for the Wairoa Wastewater Re-Consenting project.
What to Cover:	<p>The need for resource consent from HBRC to authorise a treated wastewater discharge from the WWTP, whether to land or to the Wairoa River estuary, is generally understood. To inform the decisions on selection of a preferred discharge option for consenting, this Task is to produce a checklist of the issues to be covered off in the main discharge consent application. There may also be requirements for authorisation of other aspects of the project, which potentially include some or all of the following:</p> <ul style="list-style-type: none"> • LEI; Seepage to groundwater from part or all of the WWTP; • Temporary diversions and/or discharges of groundwater to facilitate WWTP and pipeline construction; • Earthworks consents from both District and Regional Councils; • Discharges to air; • Any land treatment component of the discharge regime; • The need for Department of Conservation concessions; • District Council consent or designation requirements, particularly for any activities outside the existing WWTP footprint, (where an existing designation authorises most works); and • Potential Building Consent requirements for any construction or earthworks activities.
Exclusions:	<ul style="list-style-type: none"> • Specific detail not required; this not an AEE, but a preliminary checklist of planning considerations to be addressed.
Contributors:	LEI
Project Manager:	HL
Who to Contact:	HBRC and WDC Planners as may be required.
Who not to Contact:	Anyone else.
Timing:	Can start immediately. Completion by 30 September 2016.
Costs:	\$8,000.
Type of Output:	Report.
Reference Material:	Relevant planning documents.
Status:	Completed, subject to discussions with client.



A712 – Financial Implications

Date:	31 January 2017.
Name:	Financial implications
Reference:	A712
Background:	The Wairoa wastewater treatment system requires re-consenting and a possible upgrade. All discharge options, including the status quo and the preferred option, will involve cost implications for WDC and its ratepayers. These cost implications will be important in reaching a decision on which option is to be favoured.
Purpose:	To lay out the cost implications of selected Wairoa wastewater discharge options for WDC and ratepayers.
What to Cover:	<ul style="list-style-type: none"> • Preliminary overall project cost estimates for options selected for further consideration; • Options for WDC to fund overall project option costs; • Options for WDC to apportion and recover project costs; • Impacts of project cost options on other WDC financial commitments; and • Impacts of cost apportionment options on ratepayers.
Exclusions:	<ul style="list-style-type: none"> • No recommendation to be made; options only to be laid out.
Contributors:	LEI; WDC finance management personnel (Chris Hankey).
Project Manager:	HL
Who to Contact:	WDC internal only.
Who not to Contact:	Anyone else.
Timing:	Should not start until Initial Phase Tasks have been completed, or are at least sufficiently under way to provide indicative discharge options and costs. Start 1 February 2017, completion by 31 March 2017, according to WDC finance management personnel availability.
Costs:	LEI likely costs \$5,000 to provide base information to WDC finance management personnel.
Type of Output:	Report or even a brief memo.
Reference Material:	As may be required.
Status:	Not started.



A713 – Natural hazard implications

Date:	17 January 2017
Name:	Natural hazard implications
Reference:	A713
Background:	The Wairoa wastewater treatment system requires re-consenting and a possible upgrade. Identification and consideration of a range of discharge options will be required. Each of the discharge options to be considered will involve an exposure to natural hazards, to a greater or lesser extent. The management and mitigation of those hazards can be expected to have both a financial impact and an impact on the selection of a best practicable discharge option.
Purpose:	To identify, and provide a preliminary assessment of the severity and cost implications of, natural hazard exposures relating to each wastewater discharge option selected for further consideration.
What to Cover:	<ul style="list-style-type: none"> • Identify coastal hazards applying to the existing discharge facility; • Identify flooding and/or erosion hazards applying to credible land treatment options; • Identify seismic liquefaction hazards relating to sewer reticulation; • Provide a general outline of the extent and potential severity of each hazard; and • Identify potential financial implications of satisfactory management of each hazard.
Exclusions:	<ul style="list-style-type: none"> • Specific detail. This will come later.
Contributors:	LEI; possibly GNS.
Project Manager:	HL
Who to Contact:	As needed
Who not to Contact:	-
Timing:	Should not start until Initial Phase Tasks have been completed, or are at least sufficiently under way to provide indicative discharge options. Start 1 December 2016, completion by 28 February 2017, according to contractor availability.
Costs:	LEI \$8,000
Type of Output:	Report
Reference Material:	As may be required.
Status:	Completed.



A714 – History of Wairoa River Mouth

Date:	31 January 2017
Name:	History of Wairoa River Mouth
Reference:	A714
Background:	The Wairoa wastewater treatment system requires re-consenting and a possible upgrade. Identification and consideration of a range of discharge options will be required. One option to be considered will be continuation of the present discharge into the Wairoa River estuary. The configuration of the river mouth has not been static but has changed from time to time, and this has a bearing on any future discharge into the estuary.
Purpose:	To describe the known physical history of the Wairoa River mouth, and in particular aspects of its known behaviour that may be expected to have a bearing on any future discharge into the estuary.
What to Cover:	<ul style="list-style-type: none"> • Source information on river mouth bar openings and closures; when, how and why they happen; • Present information in a format to enable this issue to be factored into consideration of estuary discharge as a future option; • The history of the Wairoa River mouth and bar crossings during pioneering times.
Exclusions:	<ul style="list-style-type: none"> • Cultural perspectives on the Wairoa River estuary, which is addressed elsewhere.
Contributors:	LEI; HBRC as Engineers; possibly GNS.
Project Manager:	HL
Who to Contact:	As needed
Who not to Contact:	-
Timing:	Can be started immediately. Completion by 3 February 2017.
Costs:	LEI \$6,000
Type of Output:	Memo
Reference Material:	As may be required.
Status:	Underway.



