AGENDA

Wastewater Management Review Committee Meeting

Wednesday, 31 August 2022

I hereby give notice that a Wastewater Management Review Committee Meeting will be held on:

Date: **Wednesday, 31 August 2022**

Time: **1pm**

Location: **Ground Floor - Meeting Room 1**
306 Cameron Road
Tauranga

Please note that this meeting will be livestreamed and the recording will be publicly available on Tauranga City Council's website: www.tauranga.govt.nz.

Marty Grenfell

Chief Executive

Terms of reference – Wastewater Management Review Committee

Membership

Chairperson	To be appointed
Deputy chairperson	To be appointed
Members	Commissioner Stephen Selwood – Tauranga City Council Commissioner Bill Wasley – Tauranga City Council Commissioner Shadrach Rolleston (alternate member – Tauranga City Council Ms Lara Burkhardt – Ngā Pōtiki Ms Te Rangimārie Williams – Ngā Pōtiki Mr Whitiora McLeod - Ngāi Te Rangi Mr Des Heke - Ngāti Ranginui Ms Destiny Leaf (alternate member – Ngāti Ranginui)
Quorum	Four members with at least one member representing Tauranga City Council and one member representing Ngā Pōtiki
Meeting frequency	A minimum of twice yearly

The Committee previously has a membership of eight, four elected members from TCC and four iwi. Currently the membership will be reduced to six, two Commissioners appointed to represent the TCC and four who are appointed as representatives of the Ngati Ranginui and Te Runanga o Ngai Te Rangi Iwi Trust and two members as representatives of the Nga Potiki Kaitiaki Resource Management Unit.

The quorum has been reduced from 5 to 4.

The Wastewater Management Review Committee is established as a committee of Council by the Mayor under section 41A of the Local Government Act 2002 and conditions imposed on Bay of Plenty Regional Council Coastal Permit # 62878.

Role

- To ensure Wastewater operations are in accordance with the Wastewater Management Review Committee Management Plan.

Scope

(a) To receive reports on the operation of the Wastewater Scheme, including reports in relation to monitoring and permit compliance, and to make recommendations to the Permit Holder on the development of Tauranga City Council's policies in relation to wastewater management, treatment and disposal, particularly following the review of wastewater treatment in light of new technologies and standards addressed in the Monitoring, Upgrade and Technology Review Report required by Condition 20 of Coastal Permit N^{o} 62878.

(b) To make decisions about the application of the Environmental Mitigation and Enhancement Fund established in accordance with Condition 19 of Coastal Permit N^{0} 62878.

(c) To make recommendations to the Permit Holder as to physical measures and initiatives to address or compensate for actual or potential effects of the Tauranga City Wastewater Scheme (in the broadest environmental sense).

(d) Without limiting the generality of function (c) above, to make recommendations to the Permit Holder as to the implementation of the works to be undertaken in accordance with Permit Nº 62881, namely:

(i) Decommissioning of the Te Maunga Sludge Pond and the future use of the pond.

(ii) Conversion of the Te Maunga Oxidation Ponds to wetlands.

(e) To make recommendations to the Permit Holder in relation to the independent consultant to be appointed to undertake the Monitoring, Upgrade and Technology Review Report required by Condition 20 of Coastal Permit Nº 62878.

(f) To make recommendations to the Permit Holder as to enhancing the involvement of tangata whenua in sampling, testing and monitoring.

(g) Assessment of the scope and adequacy of sampling and monitoring.

(h) Notification to appropriate parties of activities that may have adverse effects.

(i) To receive, review and recommend action following receipt of wastewater reports.

(j) To recommend the commissioning of reports and future Tauranga City Council actions on wastewater management, treatment and disposal issues and options, including:

(i) Development of alternatives to waterborne wastewater systems;
(ii) Options for further treatments;
(iii) Options for methods of disposal;
(iv) Monitoring effects on the environment.

(k) To co-ordinate and oversee education of the community on wastewater management, treatment and disposal issues.

(l) To identify and make recommendations to the Permit Holder as to sources of funding which may be available to supplement the Environmental Mitigation and Enhancement Fund established pursuant to Condition 19 of Coastal Permit Nº 62878 hereof and to be applied for the purposes specified in that condition.

(m) To make recommendations to the Permit Holder as to changes to conditions of these permits pursuant to section 127 of the Resource Management Act 1991, in light of the exercise of the Review Committee's functions, including reports received and information received as a result of monitoring, etc. or to avoid, remedy or mitigate actual or potential adverse effects associated with the operation of the Wastewater Scheme.

(n) To foster robust relationships and dialogue between the Review Committee, the Permit Holder, the Western Bay of Plenty District Council and Bay of Plenty Regional Council in relation to wastewater management, treatment and disposal, particularly following the review of wastewater treatment in light of new technologies.

(o) To make recommendations to Bay of Plenty Regional Council as to amendments to the conditions of these permits which could be implemented via a review under section 128 of the Act in accordance with Condition 22 of Coastal Permit N^0 62878.

(p) Prior to making any:

(i) Decisions as to the allocation of the Environmental Mitigation and Enhancement Fund in accordance with Condition 18.3(b) of Coastal Permit Nº 62878 hereof or,

(ii) Recommendations to the Permit Holder in relation to physical environmental mitigation or enhancement or mitigation works in accordance with Condition 18.3(c) of Coastal Permit Nº 62878 hereof; -

the Review Committee will exercise its best endeavours to ascertain the existence of any persons or bodies who may have a particular interest or stake in the ecological health of the Tauranga Harbour (particularly the Upper Harbour/Rangataua Bay area) and to consult with those bodies or persons as to appropriate initiatives and measures to be so recommended (in accordance with Condition 18.3(b)of Coastal Permit N^0 62878) or undertaken (in accordance with Condition 18.3(c)of Coastal Permit Nº 62878). As a minimum, the Review Committee shall consult with

- Nga Potiki Kaitiaki Resource Management Unit hapu and iwi of Te Runanga o Ngaiterangi Iwi Trust, Ngati Ranginui and Ngati Pukenga and Te Arawa and their respective hapu which hold kaitiaki status over the wider Tauranga Moana district, including any Working Group established by those hapu or iwi;
- Bay of Plenty Regional Council and the Western Bay of Plenty District Council in relation to issues which may affect those councils in accordance with their function under Condition 18.3(m) of Coastal Permit Nº 62878 hereof.

(q) Not later than one month following the first anniversary of the commencement of these permits and on each anniversary thereafter, the Wastewater Management Review Committee shall forward to the General Manager, Bay of Plenty Regional Council, a report on the exercise of its activities and functions, including where appropriate a report on the effectiveness of measures undertaken pursuant to the Environmental Mitigation and Enhancement Fund.

(r) Not less than six months following the first anniversary of this permit and each fifth anniversary thereafter, the Wastewater Management Review Committee's annual report shall contain a review of its activities over the previous five-year period and recommendations for appropriate initiatives over the next five-year period, including any recommendations for changes to conditions of these permits which may be considered necessary or desirable. This report shall be available at least three months prior to the date on which Bay of Plenty Regional Council is entitled to review the conditions of these permits in accordance with Condition 22 of Coastal Permit Nº 62878 hereof.

(s) A copy of this report shall also be provided to the Chief Executive, Tauranga City Council.

(t) As set out in Condition 18.1.3 of Coastal Permit Nº 62878, the Wastewater Management Review Committee Management Plan may be amended with the written approval of the Chief Executive of Bay of Plenty Regional Council or delegate.

(u) Confirmation of Committee minutes.

Reports to Council and the Chief Executive of the Bay of Plenty Regional Council.

Order of Business

1 Opening karakia 7
2 Apologies 7
3 Public forum 7
4 Acceptance of late items 7
5 Confidential business to be transferred into the open 7
6 Change to order of business 7
7 Confirmation of minutes 8
7.1 Minutes of the Wastewater Management Review Committee meeting held on 1 June 2022 8
8 Declaration of conflicts of interest 18
9 Business 19
9.1 Governance options for Wastewater Management Review Committee 19
9.2 Wastewater Overflow Management Report 33
9.3 Wastewater Activities Report August 2022 89
10 Discussion of late items 93
11 Closing karakia 93

1 OPENING KARAKIA

2 APOLOGIES

3 PUBLIC FORUM

4 ACCEPTANCE OF LATE ITEMS

5 CONFIDENTIAL BUSINESS TO BE TRANSFERRED INTO THE OPEN

6 CHANGE TO ORDER OF BUSINESS

7 CONFIRMATION OF MINUTES

7.1 Minutes of the Wastewater Management Review Committee meeting held on 1 June 2022

File Number: **A13870212**

Author: **Anahera Dinsdale, Governance Advisor**

Authoriser: **Anahera Dinsdale, Governance Advisor**

RECOMMENDATIONS

That the Minutes of the Wastewater Management Review Committee meeting held on 1 June 2022 be confirmed as a true and correct record.

ATTACHMENTS

1. **Minutes of the Wastewater Management Review Committee meeting held on 1 June 2022**

MINUTES

Wastewater Management Review Committee Meeting

Wednesday, 1 June 2022

Order of Business

1 Opening Karakia 3
2 Apologies 3
3 Public forum 3
4 Acceptance of late items 3
5 Confidential business to be transferred into the open 3
6 Change to order of business 3
7 Confirmation of Minutes 4
7.1 Minutes of the Wastewater Management Review Committee meeting held on 10 November 2021 4
8 Declaration of conflicts of interest 4
9 Business 4
9.1 June 2022 Wastewater Activities Report 4
9.2 Programme Business Case Tangata Whenua Engagement and Communications Plan 5
9.3 Governance options for Wastewater Management Review Committee 6
9.4 June 2022 Pond 1 Desludging Report 7
9.5 Environmental Mitigation & Enhancement Fund 8
10 Discussion of late items 9
11 Closing Karakia 9

MINUTES OF TAURANGA CITY COUNCIL

**WASTEWATER MANAGEMENT REVIEW COMMITTEE MEETING
HELD AT THE GROUND FLOOR - MEETING ROOM 1, 306 CAMERON ROAD, TAURANGA
ON WEDNESDAY, 1 JUNE 2022 AT 1PM**

PRESENT: Commissioner Stephen Selwood, Commissioner Bill Wasley, Ms Lara Burkhardt, Mr Des Heke, Ms Destiny Leaf, Mr Whitiora McLeod.

IN ATTENDANCE: Nic Johansson (General Manager: Infrastructure), Radleigh Cairns (Acting Manager: Drainage Services), Carlo Ellis (Manager: Strategic Māori Engagement), Kelvin Hill (Manager: Water Infrastructure Outcomes), Claudia Hellberg (Team Leader: City Waters Planning), Coral Hair (Manager: Democracy Services), Robyn Garrett (Team Leader: Committee Support), Sarah Drummond (Committee Advisor)

1 OPENING KARAKIA

Mr Des Heke opened the meeting with a karakia.

Acting Chairperson Commissioner Bill Wasley welcomed Ms Destiny Leaf and noted that Mr Des Heke was also in attendance.

2 APOLOGIES

APOLOGY

COMMITTEE RESOLUTION WW2/22/1

Moved: Commissioner Bill Wasley
Seconded: Commissioner Stephen Selwood

That the apology for absence received from Ms Te Rangimarie Williams be accepted.

CARRIED

2 PUBLIC FORUM

Nil

3 ACCEPTANCE OF LATE ITEMS

Nil

4 CONFIDENTIAL BUSINESS TO BE TRANSFERRED INTO THE OPEN

Nil

5 CHANGE TO ORDER OF BUSINESS

At the direction of the Chairperson, the meeting agreed to defer consideration of the Governance Options report until later in the meeting, due to staff availability.

6 CONFIRMATION OF MINUTES

7.1 Minutes of the Wastewater Management Review Committee meeting held on 10 November 2021

COMMITTEE RESOLUTION WW2/22/2

Moved: Mr Des Heke
Seconded: Commissioner Bill Wasley

That the minutes of the Wastewater Management Review Committee meeting held on 10 November 2021 be confirmed as a true and correct record, with the following corrections:

- Correction pg. 11 Deputy Chair to Acting
- Paragraph 2 – Des Heke – Ngāti Ranginui

CARRIED

7 DECLARATION OF CONFLICTS OF INTEREST

Nil

8 BUSINESS

9.1 June 2022 Wastewater Activities Report

Staff Radleigh Cairns, Acting Manager: Drainage Services

Key points

- Summarised the key updates for the Programme Business Case and the next steps planned.
- The extra ground improvement works required for the bioreactor project meant the project was running slightly behind time. The outfall project was progressing well and was aligning closure, new outfall and pond capacity. Still some resource consent work to do. Was expecting connection of new outfall to existing pipeline in July.
- Regarding the exceedances in March/April, it was noted that a number of exceedances were allowed in the resource consent, but these incidents were under investigation anyway. A reason could be extra filter maintenance required but outfall was within resource consent parameters. Uncertain at this stage exactly why these exceedances had happened. Possibly to do with connection of the landward outfall.

In response to questions

- Tauranga City Council had investigated the cause and taken actions for exceedance even though within resource consent conditions and was still uncertain about reason for exceedances.
- Recognised that whatever needed doing must happen and could not be delayed. Had taken account of works in the Long-term Plan and the updated Annual Plan. At some point closer to 2024 would need to have a conversation about wider wastewater management issues for the city given the expected growth.

Discussion points raised

- Programme Business Case workshops had allowed for in-depth discussion and were progressing well. Also noted there was a considerable time commitment for all involved in the Programme Business Case workshops, and the workshops had built a mutual understanding of Te Tiriti o Waitangi principles with good connections made.

- Bioreactor to landfall section projects did not have a Ngā Pōtiki cultural monitor in place until a few months prior to Wastewater Management Review Committee Inaugural meeting.

COMMITTEE RESOLUTION WW2/22/3

Moved: Commissioner Stephen Selwood
Seconded: Ms Lara Burkhardt

That the Wastewater Management Review Committee:

(a) Receives the report: June 2022 Wastewater Activities Report.

CARRIED

9.2 Programme Business Case Tangata Whenua Engagement and Communications Plan

Staff Radleigh Cairns, Acting Manager: Drainage Services

Key points

- Draft needed to be revised to reflect the current Programme Business Case.

In response to questions

- The implementation of the engagement plan and various milestones could come through to the Programme Business Case workshops. The project team would need to review the engagement outcomes and assessment per the criteria briefing developed in the Programme Business Case workshops. Could also look at other reporting options to Te Rangapū Mana Whenua o Tauranga Moana.
- Once Programme Business Case workshops were completed, could have the engagement workshops happen in parallel with the project team. Plan could be received by Tangata Whenua/Tauranga City Council committee or Council as the Programme Business Case would affect the wider city.
- The overall Programme Business Case would be in parallel with the Programme Business Case workshops so that the feedback from the engagement can be incorporated. Staff wanted to be in the best position for options by 2024. Ideally would have the shortest list possible by that time.
- Should strive to do the right thing to achieve the right outcomes between Tangata Whenua and Council regardless of any particular source of funding. Noted the need to align outcomes and break down silos between projects and strategies.

Discussion points raised

- The Engagement and Communications plan sat outside as a draft document and was a key important document. It needed to be developed and progressed before it could be finalised. This was a parallel process with the interests of this committee and other iwi/hapū that were affected by the expansion of the city.
- Draft needed to build on principles of engagement. The draft would get the discussion going to get buy-in for the Programme Business Case. It also needed to be considered wider as the Programme Business Case impacted the whole city.
- Māori land and infrastructure was an ongoing concern and needed to fit in with infrastructure planning, urban growth and resilience.
- Expressed the need for a voice for Māori landowners and iwi/hapū. Might not be a programme that came out of this business case but would be an ongoing issue for Tauranga City Council to address.
- Expressed the need to link high level planning e.g. the 15th Ave/Turret Rd strategy and to consider Māori land in all the projects, look at equity of services to Māori land compared to

non-Māori land.
- Needed to find a way to support tangata whenua to provide quality input into meetings. Discussion around doing an engagement plan for a particular purpose or project, but an alternative could be to have a series of continual wananga for tangata whenua representatives to provide co-ordination across projects, strategies and higher level issues such as growth, infrastructure and impacts on Māori land.
- Engagement plan could be used as a model for ongoing engagement. Possibility this could link in with Three Waters in terms of funding.

COMMITTEE RESOLUTION WW2/22/4

Moved: Commissioner Stephen Selwood
Seconded: Mr Whitiora McLeod

Moved: Commissioner Stephen Selwood
Seconded: Mr Whitiora McLeod

That the Wastewater Management Review Committee:

(a) Receives the Report and previous draft engagement plan.

(b) Recommends to staff to continue with a review of the plan including:

(i) Undertake the required workshops to create the plan.

(ii) Undertake the required engagement to carry out the plan.

CARRIED

9.3 Governance options for Wastewater Management Review Committee

Staff Coral Hair, Manager: Democracy Services

Key points
- The Local Government Act 2002 (LGA) did not provide for official co-chairs; however, if a Chair and Deputy Chair were appointed, they could act as co-chairs by alternating meetings. Both would be involved in agenda briefings.
- Summarised the process for appointing a Chair and Deputy Chair.
- Developed position descriptions for iwi representatives. When completed they would be benchmarked by an outside agency to determine appropriate remuneration and should be reviewed regularly. The suggested review was three-yearly in conjunction with election cycle.

In response to questions
- Strategic pay review also included the alternate roles.
- Similar process undertaken for the Tangata Whenua representatives to the Strategy, Finance and Risk Committee.
- Suggestion of the Chair being a Tangata Whenua representative. If Council had not appointed a Chairperson than the Committee could do so, and it was up to the Committee to decide its process.
- Commission as a whole exercised the power of the Mayor rather than an individual commissioner. While the appointment of the Wastewater Management Review Committee Chair had usually sat with the Mayor; the Committee could decide to make its own appointment.
- An appointment panel was being used for the appointment of the independent chairperson for the Tangata Whenua/Tauranga City Council Committee, which would then provide a recommendation of appointment to Council. This was not an option for the Wastewater Management Review Committee under the Terms of Reference.
- Quorum was four which was decided by Council. Five was considered a risk as only six committee members in total. For a meeting to proceed, there must be one Ngā Pōtiki member

and one Tauranga City Council member present. Previously had been four councillors and four Tangata Whenua representatives.

Discussion points raised

- If there was a desire to move from the status quo of a Council appointed Chair and Committee appointed Deputy Chair, it was suggested to leave those decisions to lie on the table while any alternate processes were discussed by both commissioners and tangata whenua representatives.
- Majority of Terms of Reference were taken from the resource consent so limited flexibility to change. Needed to align the management plan that sits underneath the resource consent with any Terms of Reference changes and update Bay of Plenty Regional Council.
- Noted the Terms of Reference provided for appointment of alternates.

COMMITTEE RESOLUTION WW2/22/5

Moved: Commissioner Stephen Selwood
Seconded: Mr Whitiora McLeod

That the Wastewater Management Review Committee:

(a) Receives the report "Governance Options for Wastewater Management Review Committee".

(e) Recommends to Council that the position description for the Chairperson and Deputy Chairperson as set out in Attachment 2 are adopted.

(f) Recommends that alternate representatives for iwi representatives be appointed to ensure a quorum can be met.

CARRIED

COMMITTEE RESOLUTION WW2/22/6

Moved: Commissioner Stephen Selwood
Seconded: Mr Whitiora McLeod

That the Wastewater Management Review Committee agrees to leave recommendations (b), (c) and (d) of the Governance options for Wastewater Management Review Committee report to lie on the table until the next meeting.

CARRIED

9.4 June 2022 Pond 1 Desludging Report

Staff Radleigh Cairns, Acting Manager: Drainage Services

Key points

- Decision was taken prior to Council approving funding to be brought forward in the Long-term Plan to get desludging started in order to meet requirements to decommission.
- Contract had been let and work would start July 2022.
- Estimates of the amount of sludge varied and there was a lot of windblown sand also in the pond. Staff would not know the exact amount until the project started. The timeframe around disposal to the landfill could be tight so looked at ways to extend that if needed. Looked at options such as double shifts to try and meet timeframes set in the resource consent.

In response to questions

- Transporting sludge off-site added considerably to the cost of the project. There were no local sites that could take this type of sludge product; sites most likely to be utilised were Hampton Downs or the vermiculture plant. All options would be explored. The more local a disposal site

was, the cheaper in terms of cost.

Discussion points raised
- Tangata whenua would like Tauranga City Council to investigate quickly another disposal site if one would be needed to meet timeframes. Acknowledged that this may cost more money but expressed concern and did not want any more going to that site. Needed to get on with remediation of the site as soon as possible.
- Ngā Pōtiki concerned with disposal not a closed landfill and endorsed other options being investigated.

COMMITTEE RESOLUTION WW2/22/7

Moved: Commissioner Stephen Selwood
Seconded: Ms Lara Burkhardt

That the Wastewater Management Review Committee:

(a) Receives the report, June 2022 Pond 1 Desludging Report.

CARRIED

9.5 Environmental Mitigation & Enhancement Fund

Staff Radleigh Cairns, Acting Manager: Drainage Services

Key points
- Reviewed criteria and guidelines for application to the fund. The recommendation was to appoint a panel to consider applications. This report set out a process to establish the appointment panel.
- Reissue request for expressions of interest for the assessment panel. There were not many applications received the first time.
- Mr McLeod was happy to be appointed to the appointment panel. Also a nomination was received for Te Rangimarie Williams.

In response to questions
- The Terms of Reference for the assessment panel were discussed. These needed to be updated to reflect commissioners not elected members, and to update dates. Consequential amendments were needed from today's meeting decisions.

Discussion points raised
- Commission representatives suggested that the appointment panel representatives could both be tangata whenua appointees rather than including a commissioner.
- The rationale for Point 5 of project eligibility criteria – the fund only covering 50% of the project cost – was discussed. This requirement had been added by the tangata whenua members, and was around a project being more viable/achieving good outcomes if there was alternative funding available as well as TCC funding. Was about providing confidence that the project had been pre-worked and well-scoped, and applicants were committed to completion of the project. 50% requirement could be revisited, may not be achievable for some parties interested in applying for funding. Suggested that the need for confidence in applicants' commitment could be addressed by a different way e.g. asking for demonstrated effort to find additional funding/alternative funding. Assessment panel provides recommendations to the Committee, there was a discretion with the Committee in terms of amount of funding to be granted.
- Two applicants were successful in 2013. The projects were monitoring Rangataua Bay, and fed into wider work that was being done rather than council projects as such. That was not solely council information, would need to make sure there were no restrictions on where that

information could be provided; should be able to be provided to the committee members. Be useful for continuity with the Fund and meeting Fund objectives.

- Possible changes to the Manual to make sure it was clear that research such as projects to look at alternative options to ocean outfall were covered by the Fund. This could fall under the existing criteria, nothing that would work against an application for that kind of project.
- Mātauranga Māori should be included as one of the areas of expertise listed under clause 5.

COMMITTEE RESOLUTION WW2/22/8

Moved: Ms Lara Burkhardt
Seconded: Commissioner Stephen Selwood

Abstained: Mr Whitiora McLeod

That the Wastewater Management Review Committee:

(a) Receives the report, Environmental Mitigation & Enhancement Fund .

(b) Reviews the EMEF policy manual and approve any changes as required.

(c) Approves the appointment process for appointing members of the EMEF independent panel.

(i) Appoints Whiti Macleod as representative on the appointment panel.

(ii) Appoints Te Rangimarie Williams as representative on the appointment panel.

(d) Reviews and approves the terms of reference for the members of the EMEF independent panel.

CARRIED

9 DISCUSSION OF LATE ITEMS

Nil

10 CLOSING KARAKIA

Mr Des Heke closed the meeting with a karakia.

The meeting closed at 3.03pm.

The minutes of this meeting were confirmed as a true and correct record at the Wastewater Management Review Committee meeting held on 31 August 2022.

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CHAIRPERSON

8 DECLARATION OF CONFLICTS OF INTEREST

9 BUSINESS

9.1 Governance options for Wastewater Management Review Committee

File Number: **A13655270**

Author: **Coral Hair, Manager: Democracy Services**

Authoriser: **Christine Jones, General Manager: Strategy, Growth & Governance**

PURPOSE OF THE REPORT

1. This report sets out governance options for the Wastewater Management Review Committee to consider.

RECOMMENDATIONS

That the Wastewater Management Review Committee:

(a) Receives the report "Governance Options for Wastewater Management Review Committee".

(b) Recommends to Council that (insert name) is appointed as the Chairperson of the Wastewater Management Review Committee.

(c) Appoints (insert name) as the Deputy Chairperson of the Wastewater Management Review Committee.

(d) Recommends to Council that the Chairperson and Deputy Chairperson of the Wastewater Management Review Committee alternate presiding of meetings and that the amended terms of reference for the Wastewater Management Review Committee as set out in Attachment 1 are adopted.

EXECUTIVE SUMMARY

2. Following feedback from the tangata whenua members of the Wastewater Management Review Committee (WWMRC), staff were requested to look at enabling the WWMRC to have Co-Chairpersons (Co-Chairs).

3. Co-chairs are not legally able to be appointed to council committees. However, the Chairperson and Deputy Chairperson of the WWMRC could agree to alternate to preside over meetings, thus effectively acting as co-chairs. This arrangement can be set down in the Terms of Reference of the WWMRC.

4. Vacancies exist for the Chairperson and the Deputy Chairperson position. This provides an opportunity to discuss how these positions are filled.

5. The WWMRC considered a report on this matter at its meeting on 1 June 2022 and left the decision on appointments to lie on the table until this meeting.

6. Remuneration for tangata whenua representatives on the WWMRC has been evaluated by an external expert. A report on this, and other remuneration, will be going to the Council for a decision on 5 September 2022.

BACKGROUND

7. The WWMRC at its meeting on 1 June 2022 considered a report on Governance options for the WWMRC and resolved the following:

"That the Wastewater Management Review Committee:

(a) Receives the report "Governance Options for Wastewater Management Review Committee".

(e) Recommends to Council that the position description for the Chairperson and Deputy Chairperson as set out in Attachment 2 are adopted.

(f) Recommends that alternate representatives for iwi representatives be appointed to ensure a quorum can be met."

8. The WWMRC did not resolve recommendations (b), (c) and (d) and these were left to lie on the table until this meeting to enable both the Commissioners and tangata whenua representatives consider their desire to move away from the status quo. These recommendations are presented again for the WWMRC to consider.

DISCUSSION AND OPTIONS

9. The provisions of the Local Government Act 2002 relating to the appointment of a chairperson of a committee refer to the appointment of a person, singular, as the chairperson, which does not allow for the appointment of a co-chair. As such, the positions of Chairperson and Deputy Chairperson are appointed and remain separate.

10. However, the Chairperson can vacate the chair for all or part of a meeting and enable the Deputy Chairperson to chair the meeting.[1] The Chairperson is able to be present and participate in the meeting, including voting, while not chairing the meeting[2]. This would enable the two roles to effectively act as co-chairs.

11. This pre-supposes that the Chairperson agrees to vacate the chair to enable the Deputy Chairperson to chair the meeting at pre-agreed times.[3] The Terms of Reference would need to state that it is the intention that this occurs, however, there is no ability to enforce this practice if the Chairperson decides not to vacate the chair for a particular meeting.

12. Only one person can chair a meeting at any one time. The person chairing the meeting has the powers of the chairperson as set out in standing orders. They would also have the option to use the casting vote (under Standing Order 19.3) in the case of an equality of votes. It is recommended that this be explicitly stated in the terms of reference for clarification.

13. The Chairperson and Deputy Chairperson would attend pre-agenda briefings (usual practice) and split any other duties outside of meetings, e.g. spokesperson for WWMRC. The position description for these roles was approved at the last meeting and will go to the Council for adoption at the Council meeting on 5 September 2022, along with any recommendations

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[1] Clause 26(2) Schedule 7 of Local Government Act 2002 states
"*The chairperson of a committee must preside at each meeting of the committee at which he or she is present unless the chairperson vacates the chair for a particular meeting."*
and Standing Order 14.2 (see below) allows the chair of a committee to vacate the Chair for a particular meeting.
"*In the case of committees, subcommittees and subordinate decision-making bodies, the appointed Chairperson must preside at each meeting, unless they vacate the chair for all or part of a meeting. If the Chairperson is absent from a meeting or vacates the chair, the deputy Chairperson (if any) will act as Chairperson. If the deputy Chairperson is also absent, or has not been appointed, the committee members who are present must elect a member to act as Chairperson. This person may exercise the meeting responsibilities, duties and powers of the Chairperson."*

[2] The exception to this is where the reason the chairperson vacated the chair was that they had a conflict of interest, in which case they could not participate in the debate or vote.

[3] Options include alternating meetings or agreeing to chair for a specific time e.g. for the year. There are a minimum of two meetings held per year. The Chairperson will need to formally vacate the chair at the start of each meeting that it is pre-agreed the Deputy Chair will chair, and this needs to be recorded in the minutes of that meeting.

from this meeting. The position description is included again for members' information in Attachment 2.

14. Options for appointing the Chairperson and Deputy Chairperson are set out below:

Option	Details	Comments
1	Chairperson is appointed by the Council following a recommendation by the WWMRC and filled by a Commissioner/Tangata Whenua representative	**Recommended option.** A recommendation from WWMRC would require endorsement from the Council. With the co-chair arrangement, the position would work closely with the Deputy Chairperson.
2	Chairperson is appointed by the WWMRC and filled by a Commissioner/Tangata Whenua representative	Appointment would come from WWMRC. Refer to the Strategic/Statutory section for comments around appointments by committees.
3	Deputy Chairperson is appointed by the Council and filled by a Commissioner/Tangata Whenua representative	A recommendation from WWMRC would require endorsement from the Council. With co-chair arrangement, the position would work closely with the Chairperson.
4	Deputy Chairperson is appointed by the WWMRC and filled by a Commissioner/Tangata Whenua representative	**Recommended option.** Appointment would come from WWMRC. Reflects previous practice for appointments of Deputy Chair for WWMRC.

15. It is recommended that at least one Commissioner and one Tangata Whenua representative is appointed as either the chairperson or deputy chairperson, as set out in the draft Terms of Reference in Attachment 1.

16. In the absence of a Chairperson or Deputy Chairperson, the WWMRC can elect one member to chair each meeting.[4]

17. Another option for discussion is that a person could be appointed as the Chairperson for a stated period of time, with another person appointed as the Chairperson for a further period. For example, a Commissioner or elected member appointed for one year, and a Tangata Whenua Representative appointed for the following year.

STRATEGIC / STATUTORY CONTEXT

18. The WWMRC is a special committee established both by the Council (under the Local Government Act 2002) and the management plan approved by the Bay of Plenty Regional Council that sets out how the WWMRC is to operate under the conditions of resource consent 62878 and the iwi membership of this is set by the consent. The management plan is silent on the arrangements for chairing the meetings. This is not a matter that would be addressed under this plan and there is no requirement to amend this plan to spell out chairing arrangements. The Local Government Act 2002 requirements relating to chairing of meetings, and the appointments of a Chair and Deputy Chair apply.

19. The Mayor has the power under section 41A (3)(c) to appoint the chairperson of each committee and Council has the power to discharge a chairperson appointed by the Mayor (section 41A(4) (d)). The Commission Chair does not have the powers of the Mayor and

[4] Clause 26(6) Schedule 7 LGA 2002.

therefore Clauses 25[5] and 26(3) of Schedule 7 of the Local Government Act 2002 (LGA) apply. Sub-clauses 26(3) and (4) state:

(3) The local authority may appoint a member of a committee to be the chairperson of that committee and, if the local authority, on the appointment of the committee, does not appoint a chairperson, that power may be exercised by the committee.

(4) The local authority or the committee may appoint a deputy chairperson to act in the absence of the chairperson.

REMUNERATION FOR TANGATA WHENUA REPRESENTATIVES

20. Independent advisors Strategic Pay were asked to review the remuneration of the Tangata Whenua members on the WWMRC following the appointment of new committee members.

21. A report on this, and other remuneration, will be considered by Council for a decision on 5 September 2022.

22. Currently remuneration for iwi representatives on the WWMRC is based on the Tangata Whenua Remuneration Policy.

23. It is recommended that remuneration be reviewed regularly following each election.

FINANCIAL CONSIDERATIONS

24. Any financial impacts from an increase in remuneration would be meet through current budgets.

LEGAL IMPLICATIONS / RISKS

25. The WWMRC can continue to meet without appointing a chairperson or deputy chairperson but this is not recommended. Appointing a chair and deputy chair enables the committee to meet its stated purpose.

SIGNIFICANCE

26. The Local Government Act 2002 requires an assessment of the significance of matters, issues, proposals and decisions in this report against Council's Significance and Engagement Policy. Council acknowledges that in some instances a matter, issue, proposal or decision may have a high degree of importance to individuals, groups, or agencies affected by the report.

27. In making this assessment, consideration has been given to the likely impact, and likely consequences for:

    (a) the current and future social, economic, environmental, or cultural well-being of the district or region

    (b) any persons who are likely to be particularly affected by, or interested in, the .

    (c) the capacity of the local authority to perform its role, and the financial and other costs of doing so.

28. In accordance with the considerations above, criteria and thresholds in the policy, it is considered that the issue is of low significance.

ENGAGEMENT

29. Taking into consideration the above assessment, that the issue is of low significance, officers are of the opinion that no further engagement is required prior to making a decision.

[5] Clause 25 relates to the voting systems for certain appointments, including for the chairperson and deputy chairperson of a committee.

NEXT STEPS

30. The Council approves the WWMRC's recommendation and appoints the Chairperson of WWMRC.

31. The terms of reference of the WWMRC are adopted by Council on 5 September 2022.

32. The remuneration for tangata whenua representatives on the WWMRC is considered by Council on 5 September 2022

ATTACHMENTS

1. **Draft Terms of Reference for the Wastewater Management Review Committee - A12794638** ⇩
2. **Position Description for Chairperson and Deputy Chairperson of the Wastewater Management Review Committee - A12794637** ⇩
3. **Position Description for Tangata Whenua Representatives on the Wastewater Management Review Committee - A13655428** ⇩

Terms of Reference Wastewater Management Review Committee

Membership

Chairperson	To be appointed
Deputy Chairperson	To be appointed
Members	Commissioner Stephen Selwood (Tauranga City Council) Commissioner Bill Wasley (Tauranga City Council) Commissioner Shadrach Rolleston (alternate member – Tauranga City Council) Ms Lara Burkhardt – Ngā Pōtiki Ms Te Rangimārie Williams – Ngā Pōtiki Mr Whitiora McLeod - Ngāi Te Rangi Mr Des Heke - Ngāti Ranginui Ms Destiny Leaf (alternate member – Ngāti Ranginui)
Quorum	4 members with at least one member representing Tauranga City Council and one member representing Ngā Pōtiki
Decision making	By consensus where possible. If consensus cannot be reached, by majority vote. If there is an equal number of votes, the member who is chairing the meeting has a casting vote.
Meeting frequency	A minimum of twice yearly
Meeting venue	To alternate between marae and council venues; or as appropriate to a meeting agreed by the Chairperson and the Deputy Chairperson.

The Committee previously had a membership of eight, four elected members from Tauranga City Council (TCC) and four iwi. Currently the membership will be reduced to six, two Commissioners appointed to represent the TCC and four who are appointed as representatives of the Ngāti Ranginui and Te Runanga o Ngāi Te Rangi Iwi Trust and two members as representatives of the Ngā Pōtiki ā Tamapahore Trust Board .

The Wastewater Management Review Committee is established as a committee of Council under the Local Government Act 2002 and conditions imposed on Bay of Plenty Regional Council Coastal Permit # 62878.

Role

- To ensure Wastewater operations are in accordance with the Wastewater Management Review Committee Management Plan.

Scope

(a) To receive reports on the operation of the Wastewater Scheme, including reports in relation to monitoring and permit compliance, and to make recommendations to the Permit Holder on the development of Tauranga City Council's policies in relation to wastewater management, treatment and disposal, particularly following the review of wastewater treatment in light of new technologies and standards addressed in the Monitoring, Upgrade and Technology Review Report required by Condition 20 of Coastal Permit N^0 62878.

(b) To make decisions about the application of the Environmental Mitigation and Enhancement Fund established in accordance with Condition 19 of Coastal Permit N^0 62878.

(c) To make recommendations to the Permit Holder as to physical measures and initiatives to address or compensate for actual or potential effects of the Tauranga City Wastewater Scheme (in the broadest environmental sense).

(d) Without limiting the generality of function (c) above, to make recommendations to the Permit Holder as to the implementation of the works to be undertaken in accordance with Permit N^0 62881, namely:

  (i) Decommissioning of the Te Maunga Sludge Pond and the future use of the pond.

  (ii) Conversion of the Te Maunga Oxidation Ponds to wetlands.

(e) To make recommendations to the Permit Holder in relation to the independent consultant to be appointed to undertake the Monitoring, Upgrade and Technology Review Report required by Condition 20 of Coastal Permit N^0 62878.

(f) To make recommendations to the Permit Holder as to enhancing the involvement of tangata whenua in sampling, testing and monitoring.

(g) Assessment of the scope and adequacy of sampling and monitoring.

(h) Notification to appropriate parties of activities that may have adverse effects.

(i) To receive, review and recommend action following receipt of wastewater reports.

(j) To recommend the commissioning of reports and future Tauranga City Council actions on wastewater management, treatment and disposal issues and options, including:

  (i) Development of alternatives to waterborne wastewater systems;
  (ii) Options for further treatments;
  (iii) Options for methods of disposal;
  (iv) Monitoring effects on the environment.

(k) To co-ordinate and oversee education of the community on wastewater management, treatment and disposal issues.

(l) To identify and make recommendations to the Permit Holder as to sources of funding which may be available to supplement the Environmental Mitigation and Enhancement Fund established pursuant to Condition 19 of Coastal Permit N^0 62878 hereof and to be applied for the purposes specified in that condition.

(m) To make recommendations to the Permit Holder as to changes to conditions of these permits pursuant to section 127 of the Resource Management Act 1991, in light of the exercise of the Review Committee's functions, including reports received and information received as a result of monitoring, etc. or to avoid, remedy or mitigate actual or potential adverse effects associated with the operation of the Wastewater Scheme.

(n) To foster robust relationships and dialogue between the Review Committee, the Permit Holder, the Western Bay of Plenty District Council and Bay of Plenty Regional Council in relation to wastewater management, treatment and disposal, particularly following the review of wastewater treatment in light of new technologies.

(o) To make recommendations to Bay of Plenty Regional Council as to amendments to the conditions of these permits which could be implemented via a review under section 128 of the Act in accordance with Condition 22 of Coastal Permit N^0 62878.

(p) Prior to making any:

(i) Decisions as to the allocation of the Environmental Mitigation and Enhancement Fund in accordance with Condition 18.3(b) of Coastal Permit N^0 62878 hereof or,

(ii) Recommendations to the Permit Holder in relation to physical environmental mitigation or enhancement or mitigation works in accordance with Condition 18.3(c) of Coastal Permit N^0 62878 hereof; -

the Review Committee will exercise its best endeavours to ascertain the existence of any persons or bodies who may have a particular interest or stake in the ecological health of the Tauranga Harbour (particularly the Upper Harbour/Rangataua Bay area) and to consult with those bodies or persons as to appropriate initiatives and measures to be so recommended (in accordance with Condition 18.3(b)of Coastal Permit N^0 62878) or undertaken (in accordance with Condition 18.3(c)of Coastal Permit N^0 62878). As a minimum, the Review Committee shall consult with

- Nga Potiki Kaitiaki Resource Management Unit hapu and iwi of Te Runanga o Ngaiterangi Iwi Trust, Ngati Ranginui and Ngati Pukenga and Te Arawa and their respective hapu which hold kaitiaki status over the wider Tauranga Moana district, including any Working Group established by those hapu or iwi;
- Bay of Plenty Regional Council and the Western Bay of Plenty District Council in relation to issues which may affect those councils in accordance with their function under Condition 18.3(m) of Coastal Permit N^0 62878 hereof.

(q) Not later than one month following the first anniversary of the commencement of these permits and on each anniversary thereafter, the Wastewater Management Review Committee shall forward to the General Manager, Bay of Plenty Regional Council, a report on the exercise of its activities and functions, including where appropriate a report on the effectiveness of measures undertaken pursuant to the Environmental Mitigation and Enhancement Fund.

(r) Not less than six months following the first anniversary of this permit and each fifth anniversary thereafter, the Wastewater Management Review Committee's annual report shall contain a review of its activities over the previous five-year period and recommendations for appropriate initiatives over the next five-year period, including any recommendations for changes to conditions of these permits which may be considered necessary or desirable. This report shall be available at least three months prior to the date on which Bay of Plenty Regional Council is entitled to review the conditions of these permits in accordance with Condition 22 of Coastal Permit N^0 62878 hereof.

(s) A copy of this report shall also be provided to the Chief Executive, Tauranga City Council.

(t) As set out in Condition 18.1.3 of Coastal Permit N^0 62878, the Wastewater Management Review Committee Management Plan may be amended with the written approval of the Chief Executive of Bay of Plenty Regional Council or delegate.

(u) Confirmation of Committee minutes.

Reporting

The Wastewater Management Review Committee reports to Council and the Chief Executive of the Bay of Plenty Regional Council.

Chairperson and Deputy Chairperson acting as Co-Chairs

The Chairperson and Deputy Chairperson of the Wastewater Management Review Committee (WWMRC) have a governance role to ensure that the WWMRC meets regularly and undertakes its role to monitor and provide advice to Tauranga City Council as the consent holder of Bay of Plenty Regional Council Coastal Permit # 62878 and ensure wastewater operations are in accordance with the Wastewater Management Plan.

- The Chairperson will be appointed by the Tauranga City Council following a recommendation of the Wastewater Management Review Committee.
- The Deputy Chairperson will be appointed by the Wastewater Management Review Committee.
- While these roles are separately appointed it is the intention that they act as co-chairs.
    - Only one person can chair a meeting at any one time. The person chairing the meeting has the powers of the chairperson as set out in standing orders and has the option to use the casting vote in the case of an equality of votes.
    - The rotation of the meeting chairs is at the discretion of the Chairperson and Deputy Chairperson and subject to their availability, however it is expected that they will alternate chairing meetings when possible.
    - When the Deputy Chairperson is chairing the meeting, the Chairperson will vacate the chair and enable the Deputy Chairperson to chair the meeting. The Chairperson will be able stay and participate in the meeting unless they declare a conflict of interest in an item, in which case they will not participate or vote on that item.
    - The Chairperson and Deputy Chairperson will attend pre-agenda briefings and split any other duties outside of meetings, e.g. spokesperson for WWMRC.
    - The Chairperson and Deputy Chairperson will jointly oversee and co-ordinate all activities of the WWMRC within their specific terms of reference and delegated authority, providing guidance and direction to all members and liaising with Council staff in setting the content and priorities of meeting agendas.
    - The Chairperson and Deputy Chairperson will be accountable for ensuring that any recommendations from the WWMRC are considered by the Tauranga City Council.
    - Refer to the position description for the Chairperson and Deputy Chairperson for more details.

Position outline: Chairperson and Deputy-Chairperson

Wastewater Management Review Committee

Title	Chairperson and Deputy Chairperson
Committee	Wastewater Management Review Committee
Date	18 July 2022

Position purpose

The Chairperson and Deputy Chairperson of the Wastewater Management Review Committee (WWMRC) have a governance role to ensure that the WWMRC meets regularly and undertakes its role to monitor and provide advice to Tauranga City Council as the consent holder of Bay of Plenty Regional Council Coastal Permit # 62878 and ensure wastewater operations are in accordance with the Wastewater Management Plan.

The Chairperson of the WWMRC will be appointed by the Council following a recommendation from the WWMRC and EITHER be from the consent holder's representatives on the WWMRC OR from the iwi representatives on the WWMRC. The Deputy Chairperson will be appointed by the WWMRC, and depending on who is appointed chairperson, be EITHER from the consent holder's representatives on the WWMRC OR from the iwi representatives on the WWMRC, as set out in the terms of reference for the WWMRC.

The Chairperson and Deputy Chairperson will jointly oversee and co-ordinate all activities of the WWMRC within their specific terms of reference and delegated authority, providing guidance and direction to all members and liaising with Council staff in setting the content and priorities of meeting agendas.

The Chairperson and Deputy Chairperson will be accountable for ensuring that any recommendations from the WWMRC are considered by the Tauranga City Council.

Note: only one person will chair each meeting. The rotation of meeting chairs is at the discretion of the Chairperson and Deputy Chairperson and subject to their availability; however, it would be expected that they will alternate chairing meetings when possible. The Chairperson will vacate the chair and enable the Deputy Chairperson to chair the meeting. The Chairperson will be able stay and participate in the meeting unless they declare a conflict of interest in an item, in which case they will not participate or vote on that item.

The term of appointment will be from the date of appointment in 2022 to July 2024. The expiry of the term coincides with the next election for the Tauranga City Council, which may result in different representatives from the council being appointed to the WWMRC.

The roles have full voting rights and where there is an equal number of votes, the person who is chairing the meeting also has a casting vote.

Competencies

Competencies	Description
Te Tiriti o Waitangi	• Understanding of, or a commitment to develop capability, with respect to Te Tiriti o Waitangi. • A commitment to demonstrating strong relationships as intended by Te Tiriti o Waitangi.
Te Ao Māori	• Actively encourages feedback into discussion that highlights and explains Māori values and concepts that can enhance decision making processes. • Ensures that those aspects that may not usually be considered well or with strong understanding are given reasonable time and resource to be well considered. • Takes into consideration the views and interests of the iwi and hapū members appointed to the WWMRC. • Has an understanding of tikanga.
Governance Experience	General Requirements • Understands local government's obligations in relation to wastewater and is familiar with the resource consent conditions of RC 62878. Specific Requirements • Board or governance experience. • Understands and respects the differing roles of the Commission, Mayor and Councillors, Bay of Plenty Regional Council and iwi/hapū representatives; and any other appointees to the WWMRC. • Recognises that the role does not extend to operational matters or to the management of any implementation. • Develops and maintains a working knowledge of the wastewater management plan.. • Understands the context of the three waters reform process in local government. • Familiar with and complies with the statutory requirements of a member including appropriate recordkeeping in accordance with the Public Records Act 2005 and the Local Government Official Information and Meetings Act 1987. • Ability to chair a meeting in an effective and efficient manner.
Leadership and Strategic Experience	• Strategic and/or leadership experience. • Committed to promoting the profile and effectiveness of the WWMRC. • Transparent and upfront approach.

Personal Attributes

Personal Attributes	Description
Mana (status) and integrity	• Has the status to manage meetings on marae as well as in Council Chambers. • High organisational ethics, accepts collective responsibility, respects confidentiality. • Identifies, is aware of and declares any potential personal conflicts of interest, whether of a pecuniary or non-pecuniary nature.
Communication	• Listens actively and accurately, encourages input from others, debates in reasoned and calm way. • Ability to communicate complex and technical information appropriate to the audience.
Decision Making	• Fosters consensus-based decision making. • Broad perspective - both short and long term. • Fully considers all options.
Teamwork/ Collaboration	• Actively participates in and facilitates team effectiveness of the WWMRC. • Works productively and openly with colleagues. • A proactive approach to advising members of matters that require further attention. • Supports the decision of the WWMRC to others outside of the WWMRC.
Leadership	• Proven skills and willingness to apply leadership in a governance context. • Skilled at coordinating and summarising viewpoints of meeting attendees. • Facilitating style of chairmanship that enables quality participation and outcomes. • Solutions and outcomes focused. • Objective leadership capabilities and skilled in guiding discussion towards shared and mutually beneficial outcomes. • Inclusive chairmanship to ensure voices are heard objectively.

Chairperson and Deputy Chairperson Tasks

Task Description
• Chair meeting. • Provide advice on courses of action to progress the deliberations and outcomes. • Ensure requests are resolved by the WWMC and actioned in a timely manner. • Liaise with Council staff in setting the content and priorities of meeting agendas and attend pre-agenda meetings. • Ensure appropriate communication occurs with WWMRC members and other appropriate groups/partners.

Position Description for Tangata Whenua Representative on the Wastewater Management Review Committee

Position purpose

The Tangata Whenua Appointees are selected and recommended by their relevant iwi and endorsed by Tauranga City Council. The Tangata Whenua Appointee is expected to bring their understanding of Te Ao Māori alongside their relevant expertise and experience to contribute to the decision making of the Wastewater Management Review Committee (WWMRC).

The role of the WWMRC is to monitor and provide advice to Tauranga City Council as the consent holder of Bay of Plenty Regional Council Coastal Permit # 62878 and ensure wastewater operations are in accordance with the Wastewater Management Plan. The scope of the WWMRC is set out in appendix 1.

The role has full voting rights for this committee.

Competencies

Competencies	Description
Governance Experience	• Understands Local Government obligations to consider and support the principles of Te Tiriti o Waitangi in their decision-making and action and to provide for Māori participation in local authority decision-making processes. • Understands and respects the differing roles of the Tangata Whenua representatives, the Commission, Chairperson and Deputy Chairperson, Mayor and Councillors. • Recognises that the external appointee role does not extend to operational matters or to the management of any implementation. • Develops and maintains a working knowledge of Council wastewater services, the powers, duties and constraints of the Wastewater Management Review Committee's delegated areas of responsibility. • Familiar with and complies with the statutory requirements of a committee member including appropriate recordkeeping in accordance with the Public Records Act 2005 and the Local Government Official Information and Meetings Act 1987.
Te Ao Māori	• Is recommended by their iwi as a Tangata Whenua representative to the Committee. • Brings and maintains a strong understanding of issues relating to Māori in Tauranga Moana. • Demonstrates an ability to apply a Māori lens to issues placed before the Committee, bringing to the attention of the Committee those aspects that may not usually be considered well or with strong understanding. • Takes into consideration the wider Tauranga community when advising how to recognise Te Ao Māori.
Te Tiriti o Waitangi	• Understanding of, or a commitment to develop capability, with respect to Te Tiriti o Waitangi. • A commitment to demonstrating strong relationships as intended by Te Tiriti o Waitangi.

Competencies	Description
Relevant Experience	• Knowledge and understanding of the Local Government sector. • Knowledge and understanding of the Resource Management Act 1991. • Proven experience in reviewing and analysing reports. • The ability to ask relevant and pertinent questions and evaluate the answers. • Understanding of the development and oversight of wastewater management issues.

Personal Attributes

Personal Attributes	Description
Integrity	• High organisational ethics, accepts collective responsibility, respects confidentiality. • Identifies, is aware of and declares any potential personal conflicts of interest, whether of a pecuniary or non-pecuniary nature.
Communication	• Listens actively and accurately, encourages input from others, debates in reasoned and calm way. • Ability to communicate complex and technical information appropriate to the audience.
Decision Making	• Sophisticated, analytically based decision making, intellectual rigor. • Broad perspective - both short and long term, fully considers options.
Teamwork/ Collaboration	• Actively participates in and facilitates team effectiveness of the Committee • Works productively and openly with colleagues. • A proactive approach to advising the governing body and Chief Executive of matters that require further attention. • Supports the decision of the Committee outside the Council environment.

9.2 Wastewater Overflow Management Report

File Number: **A13761189**

Author: **Radleigh Cairns, Manager: Drainage Services**

Authoriser: **Nic Johansson, General Manager: Infrastructure**

PURPOSE OF THE REPORT

1. To provide information to the Wastewater Management Review Committee on the issue of dry and wet weather wastewater overflows, the current response, reporting and notification requirements and the ongoing work undertaken by staff to reduce the incidence of these events within the city.

RECOMMENDATIONS

That the Wastewater Management Review Committee:

(a) Receives the report "Wastewater Overflow Management Report"

EXECUTIVE SUMMARY

2. Members of the committee have previously requested that staff provide information on wastewater overflows within Tauranga, Council's response to overflows and any work undertaken to prevent overflows to the receiving environment.
3. Overflows can be split into two categories being: Wet weather overflows caused by inflow and infiltration of stormwater and groundwater into the wastewater network; and Dry weather overflows caused by blockages and damage to the network during normal flows.
4. Staff have reviewed wastewater requests data for the last three financial years and found that between the financial years 2019 to 2022 (July 2019 to June 2022) a total of almost 550 network incidents have been reported within the wastewater network over this period.
5. These events can be categorised as follows:
    - 85% were dealt with either before any discharge from the network eventuated or were contained to land (either private or public).
    - 7% resulted in a discharge to the stormwater network where it was contained and did not reach a receiving environment.
    - 8% resulted in discharges that potentially reached a receiving environment (waterway / harbour / ocean) and required notification.
6. TCC has agreed with Bay of Plenty Regional Council (BoPRC) to follow the Regional Best Practice Guide for the Management of Overflows (**Attachment 1**) when responding, reporting and notifying wastewater overflows from the wastewater network.
7. Council acknowledges its responsibility to continually work towards minimising the incidence of wastewater overflows from its wastewater network and has a variety of programmes that contribute to that aim including: operational maintenance; capacity modelling and planned upgrades; as well as educational programmes raising awareness within the community.

DISCUSSION

Overflows and Response

8. Flows into the wastewater network come from three main sources. Dry weather flow (a combination of domestic and non-residential loads), groundwater infiltration (water entering the network from the groundwater table) and rainfall derived inflow and infiltration (RDII - rainfall which enters the network from a variety of pathways).

9. The wastewater network is designed and constructed to convey dry weather flows (based on population density and water consumption rates) with an additional infiltration factor to size the pipes for dealing with other flows (such as RDII).

10. Wet weather overflows can occur when the capacity of the network in certain areas is exceeded due to inflow and infiltration during a rain event. Dry weather overflows tend to occur when a blockage constrains flow in the network, or the network is damaged or fails.

11. From July 2019 to June 2022 TCC notified 41 Overflows that reached or potentially reached a receiving environment. Across the three years numbers were stable with 15 in 2019/20, 12 in 2020/21 and 14 in 2021/22. Only one of these overflows appeared to be due to a wet weather capacity issue.

12. The response to any blockage or overflow in the network follows the Best Practice Guide produced by the Bay of Plenty Regional Wastewater Management Group (which includes The Bay of Plenty Regional Council, Toi Te Ora and the six Territorial Authorities within the region including TCC, **Attachment 1**).

13. The purpose of the technical guide is to provide an agreed standardised framework and key performance targets for the response, monitoring and reporting of wastewater overflows by Network Operators and contracted service providers across the region.

14. Council via its maintenance contractor are required to respond as soon as possible to any overflow/blockage once alerted, with the contractor to be onsite within 60 minutes to assess the situation. Initial focus is on containing and stopping any discharge from the network and normally involves removing any blockage or repairing damage to the network.

15. If the overflow cannot be contained or has potentially already reached the stormwater network and a receiving environment then the notification and reporting process is begun, with BoPRC, Toi Te Ora and affected hāpu and iwi notified. If it is a significant community area for recreation or access a wider media advisory may also be undertaken.

16. Council will always err on the side of caution and warn of potential impacts from wastewater overflows by notifying and placing warning signage in affected areas prior to any water quality testing providing conformation that there has been an impact on the receiving environment.

17. Follow up will include any longer-term repairs required or investigations into the reasons for the overflow, water quality testing to assess whether there is any ongoing environmental impact on the receiving environment as well as potentially educational work on raising awareness of the cause within the catchment's residents and businesses.

18. Any incident requiring notification under the guide requires a report to be provided to BoPRC on the completion of any follow up work.

19. The guide does not cover consented overflows from the treatment plants for example during extreme weather events. However, these consents have their own notification and reporting requirements that are similar. The last use of one of these consents was in June 2018 when many areas of the city received 100-150mm of rain in one day with areas receiving over 30mm/hr at times.

20. Council has a number of programmes aimed at minimising and reducing the number of blockages and overflows from the wastewater network that includes: operational maintenance; capacity modelling and planned upgrades; as well as educational programmes raising awareness within the community. These target both Wet weather and Dry weather events.

Preventative Maintenance

21. Council contractors undertake scheduled maintenance on areas of the network where potential blockages have been known to build up previously. These areas are “flushed” to remove any blockages that may have begun to build up. These could be areas where the network configuration makes it easy for build ups of fat to occur or a slumped pipe waiting on a more permanent repair for example.
22. TCC undertakes CCTV of the wastewater network to identify locations where renewals and or maintenance is required. CCTV is resource intensive requiring the initial video work but also reviewing the footage before any improvements can be made.
23. Council trialled a rapid assessment tool (SL-RAT®) in 2021 that provided a highly portable rapid onsite blockage assessment enabling any CCTV and cleaning resources to be more effectively utilised.
24. The trial covered over 5km of the network including 115 manholes in 4 days and identified 15 manholes that needed repairs and 2 sites that required emergency flushing to clear blockages and preventing potential overflows.
25. Council have agreed to resource the use of the rapid assessment tool over the next three years and are currently working through some technical reporting issues before the project begins. Use of this type of technology could potentially enable TCC to assess its full network (700+ kilometres) every 5 years.
26. Council monitors both flow and levels within certain manholes and pump stations to provide data that can be used in modelling and planning for upgrades.

Wastewater Education

27. The Waterline School programme has been educating our tamariki on all things wastewater for over a decade and Council have recently completed a review that incorporated a number of changes requested by schools of the hugely popular programme. These included more activity based learning and interactive segments that utilised their online resources.
28. When blockages caused by wipes or fats and grease occur, the catchment where the blockages originated is identified and staff mail drop information on the blockage and the impacts reminding residents not to flush these wastes into the system.
29. This builds on Council’s “Save our Pipes from Wipes” campaign that was launched in late 2018 after Tauranga’s internationally recognised beach, Pilot Bay was temporarily closed due to a wastewater overflow caused by wet wipes.
30. A noticeable reduction of the number of blockages caused by wet wipes was achieved during the launch of this campaign. Since then, numbers have been relatively constant.
31. A new Australian-New Zealand Flushable Products Standard - DR AS/NZS 5328:2021 has been established to identify products that are safe to flush down the toilet. This flushability standard is the first of its kind in the world, and it has been a collaboration between water utilities (including TCC) and manufacturers in its development.

32. While the Standard is voluntary, it provides manufacturers with clear pass/fail criteria for products suitable for toilet flushing. Manufacturers are required to pass six testing criteria and an attestation that there is no plastic in the product. They are also expected to start using the flushable symbol in the coming months.

33. Flushable products will have a clearly identifiable symbol on the packaging. If it does not have this symbol, it does not meet the flushability standard and should be put in the bin, not the toilet.

34. Staff plan to commence engagement with supermarkets and retailers stocking wet wipes. This will be to raise awareness of the new standard and to influence their decisions around these products. The commerce commission will be responsible for compliance to the standard.

35. The Waterline team are about to launch a new early childhood programme focussed on wet wipes that will be rolled out at kindergartens and other pre-schools with the objective of reducing the amount of wet wipes that are flushed down the wastewater network.

36. TCC's Trade Waste Officers visit both Industrial and Commercial businesses within the city to educate business owners on the impacts of wastes discharged to the network, ensure the required treatment options such as grease traps are in place and monitor discharges through the application of trade waste consents for high risk activities.

Inflow and Infiltration (I&I) Strategy

37. The level of groundwater infiltration and rainfall derived inflow and infiltration (RDII) into the network can vary based on the condition and/or set up of the system (e.g., cracked/broken pipes allowing infiltration, faulty manhole covers, connection of roof drains into the system). The network's response to rainfall usually determines the frequency at which network capacity is exceeded, and unplanned overflows due to capacity constraints may occur.

38. I&I can be difficult to measure and requires extensive data collection and resources. It is specific to a given catchment and can also change over time as asset condition deteriorates. However, understanding levels of I&I enables Council to assess system capacity, make sound investment decisions and effectively manage wet weather wastewater flows for current and future populations.

39. Council has developed a strategic wastewater network model (SWNM) to manage the network capacity. The model identifies peak wet weather flows in the trunk network leading to the wastewater treatment plants and can predict where, and when, this can result in unplanned overflows from the system. The model also assesses the percentage of I&I into the network.

40. The SWNM shows very low rates of I&I in the Tauranga wastewater network. The modelled rates of I&I are between 0.3% and 2.5% (from flow gauge calibration), with an average rate of 1.2%. Other wastewater service providers in New Zealand have reported rates of I&I between 5-10%. This means that Council's main focus should be maintaining low I&I rates.

41. Council has also commissioned a draft I&I strategy. The I&I strategy will document current and future work needed to manage I&I into all sections (public and private) of Tauranga's wastewater network where it may contribute to wet weather overflows. As Tauranga's I&I% is

already low, the strategy will focus on identifying issues and prioritising catchments where I&I remediation work is likely to mitigate wet weather wastewater overflows in a cost-effective manner.

Long Term Plan Capital Works Programme & Network Model

42. For the 2021- 2031 LTP a static hydraulic model for the network was developed to identify potential capacity constraints in the network (i.e., where we could expect to see wet weather overflows). The model used asset data, design flows and population forecasts to identify areas and compared this against reported incidents to find problem areas to be prioritised for options to be included in the LTP. A number of these projects are currently underway.

43. For the 2024-2034 LTP the model will be dynamic allowing a range of scenarios to be tested and will consider the hydraulic constraints of the wastewater treatment plants in any optioneering and prioritisation of improvement works.

NEXT STEPS

44. Further updates will be provided as requested by the Wastewater Management Review Committee (WWMRC).

ATTACHMENTS

1. BOPRC_Best Practice Guide for Managing WW Overflows December 2019 (A11182777)_Optimized - A13868621 ⇩

Regional best practice guide for the management of wastewater overflows

Prepared by 4Sight Consulting for the Regional Wastewater Management Group

November 2019

REGIONAL BEST PRACTICE GUIDE FOR THE MANAGEMENT OF WASTEWATER OVERFLOWS

Regional Wastewater Management Group

Version 1.0
November 2019

Acknowledgements

Prior to the development of the Regional Best Practice Guide for the Management of Wastewater Overflows (the Guide), 4Sight Consulting Limited (4Sight) completed a desktop review of available documents to identify examples of current practice. The following two documents offered the best approach and content on which to base the development of a guide for the Bay of Plenty:

- *Dry Weather Sewer Overflows Best Management Practice Guideline* (June 2006); and
- *Wastewater Overflow Regional Response Manual* (May 2013).

To ensure best value and a fit for purpose guide for the Bay of Plenty region, the Guide has been based on the two documents above and customised as appropriate for the region. 4Sight acknowledges Watercare Service Ltd and Auckland Council as owners of the above documents and appreciates them permitting the use of content.

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Contents

Acknowledgements **i**

1 **Introduction** **1**

1.1 Background 1

1.2 Purpose 1

1.3 Scope 1

1.4 Structure of the guide 2

1.5 Process overview diagram 3

1.6 Guide status and reviews 3

2 **Overflows in the Bay of Plenty** **3**

3 **Key overflow management roles** **5**

4 **Key definitions** **6**

4.1 Definition of dry and wet weather overflows 6

4.2 Definition of overflow to land and to water 6

4.3 Definition of best endeavours approach 6

4.4 Definition of public land 6

4.5 Definition of exposure 6

4.6 Definition of contact recreation area 7

4.7 Definition of washdown and flushing 7

5 **Overflow response** **7**

5.1 On-site health and safety 8

5.2 On-site assessment 8

5.3 Risk assessment 9

5.4 Signage and perimeter controls 10

5.5 Notify other parties 11

5.6 Install containment 11

5.7 Repair 13
5.8 Clean-up 13
6 **Environmental monitoring** **17**
7 **Key performance targets** **17**
8 **Closeout and reporting** **18**
8.1 Incident closeout reporting 18
8.2 Annual reporting 20
8.3 De-brief 20
9 **Auditing and updates to procedures** **20**
Appendix A: Monitoring guidance **23**
Appendix B: Process overview diagram **27**
Appendix C: Initial information gathering process **30**
Appendix D: Warning sign template **32**
Appendix E: Notification template **34**
Appendix F: Flushing guideline **36**
Appendix G: Incident response form **38**
Appendix H: Annual report template **40**

1 Introduction

1.1 Background

The Bay of Plenty Regional Wastewater Management Group (the Group) was established in 2013 to provide a forum to discuss technical and management solutions to reduce the incidence of wastewater overflows across the region. The Group includes representation from Bay of Plenty Regional Council (BOPRC), Toi Te Ora Public Health Service (Toi Te Ora) and Territorial Authorities that operate wastewater networks within the Bay of Plenty region (collectively referred to as Network Operators), including:

- Tauranga City Council;
- Western Bay of Plenty District Council;
- Whakatane District Council;
- Rotorua Lakes Council;
- Opotiki District Council; and
- Kawerau District Council.

Discussion within the Group has highlighted some inconsistencies in overflow management across the region and it was agreed that the Guide would be developed to address this.

1.2 Purpose

The purpose of the Guide is to provide an agreed standardised framework and key performance targets for the response, monitoring and reporting of wastewater overflows by Network Operators and contracted service providers across the region

1.3 Scope

The Guide will cover best practice response, monitoring and reporting for both *dry weather* and *wet weather overflows* associated with the public reticulated wastewater network across the Bay of Plenty region. The Guide will cover the management of *overflows to land* and *overflows to water*.

The Guide does not cover private wastewater system or treatment plant overflows.

It is noted that in some networks overflows can occur as a result of a lack of pipe or network capacity. However, capacity is not generally an issue in the Bay of Plenty region and is therefore outside of the scope of the Guide.

Catastrophic overflow events constituting a Civil Defence State of Emergency are outside the scope of this Guide.

1.4 Structure of the guide

The Guide is made up of the following sections.

Section	Covers
1 - Introduction	Introduces the Guide including background, purpose, scope and structure.
2 – Overflows in the Bay of Plenty	Briefly covers the causes and effects of wastewater overflows in the region.
3 – Key overflow management roles in the region	Describes the key roles in wastewater overflow response.
4 – Key definitions	Provides a definition of key terms used in the Guide.
5 – Overflow response	Sets out the best practice requirements for responding to wastewater overflows in the Bay of Plenty Region. Response requirements are separated into the following key steps and these form the structure of the response section: ▪ Assess: ▫ On-site health and safety ▫ On-site assessment of incident and request for additional resources ▫ Assess risk ▫ Signage and perimeter controls in place ▪ Respond: ▫ Notify to involve other parties ▫ Install containment ▫ Repair ▫ Clean up
6 – Environmental monitoring	Provides an overview of monitoring requirements (with more specific requirements in Appendix A).
7 – Key performance targets	Provides the key performance targets for responding to overflows in terms of timeframes and results.
8 – Close out and reporting	Covers when close out can occur, roles, key process steps and requirements.
9 – Auditing and updates to Network Operator Procedures	Covers the need for Network Operators to audit their response against the requirements of the Guide.
Appendices	Process overview diagram, supporting information, incident response reporting form and templates.

1.5 Process overview diagram

While the full Guide should be regularly reviewed and referred to, those very familiar with its requirements can refer to the *Process Overview Diagram* in Appendix B. The *Process Overview Diagram* is intended to capture critical steps and key information to prompt appropriate action. It is suggested that the *Process Overview Diagram* be laminated and kept in response vehicles for quick reference.

1.6 Guide status and reviews

The Guide is a living document that will require review over time to ensure it continues to meet its intended purpose and is consistent with developments in practice.

It is recommended that the Guide is reviewed after 2 years of implementation, and then every five years thereafter (or sooner if needed). The review should be carried out by the Group and any required updates to the Guide made within six months of the completion of the review. Proposed updates will be circulated to the Group for approval prior to being formally adopted.

2 Overflows in the Bay of Plenty

Early wastewater systems took wastewater out of houses and typically discharged into the outgoing tide to be flushed out to sea. Around this time, civic authorities focused on basic sanitation needs to reduce disease. Having met these basic sanitation needs in the early 1900's, attention turned to the growing community expectations of the quality of our beaches, harbours and streams. This in turn led to more extensive wastewater systems and the more sophisticated treatment that we know today.

Despite this improvement, our wastewater networks are not problem-free and from time to time overflows occur.

Overflows are either a result of overloading of the wastewater system with stormwater during rainfall from inflow and infiltration (*wet weather overflows*) or during dry weather as a result of a partial or full blockage of the pipe system (*dry weather overflows*).

Wet weather overflows are typically caused by illegal roof pipe connections, low gully traps or weak points in the pipe network. The majority of *dry weather overflows* in the region are due to blockages. Blockages occur as a result of pipe failure, or from tree roots, fats, or items such as sanitary wipes entering the system down sinks and toilets. *Dry weather overflows* can also occur as a result of a lack of pipe capacity to cater for normal flows. However, this situation is not known to occur in the Bay of Plenty at this time.

Characteristics of overflows strongly reflect the characteristics of the contributing catchment. In this respect, the contaminants in wastewater from a residential catchment will differ from those in wastewater from an industrial catchment. Typically, raw wastewater overflows will contain a mixture of:

- Organic matter (faecal matter, vegetation, paper, etc);
- Nutrients (primarily nitrogen and phosphorus);
- Microbiological pathogens (numerous pathogens can be present in human wastewater);
- Solids (faecal solids, paper, plastics etc.); and
- Variable levels of contaminants such as heavy metals and organic chemicals, typically from tradewaste.

Dry weather overflows will consist of a relatively undiluted combination of the above, while *wet weather overflows* will be diluted to some extent by the rainfall inflow and infiltration contributing to them.

The volume of an overflow will be determined by the rate and duration of the discharge. Overflows from larger wastewater networks will typically have higher rates of discharge, reflecting the size of the contributing catchment. Wastewater flows typically display morning and evening peaks, so time of day can also affect volume.

Wastewater overflows end up at our beaches and in our harbours and streams where the main adverse effect is generally the risk posed to public health as a result of pathogens (bacteria, viruses, microorganisms, etc.) carried in the wastewater.

In addition to the public health risk, overflows can result in long and short-term effects on the natural environment. Long-term effects brought about by frequent wastewater overflows include elevated nutrient levels often leading to undesirable algae growth and reduced water quality. Short-term effects mainly occur during *dry weather overflows* where the organic content of the relatively undiluted wastewater can result in de-oxygenation of watercourses, particularly during times of low flow when available dilution in the receiving environment is at its lowest. Reduced oxygen levels may also occur in estuarine areas, but this effect is likely to be rare and of short duration given the high dilution that is available in the coastal environment and regular tidal exchange. During *wet weather overflow* events, the wastewater component is typically diluted by large stormwater flows and as a result, de-oxygenation effects are less likely to occur.

In addition to physical effects on receiving environments and public health, wastewater overflows can have a social impact by reducing aesthetic values due to the presence of faecal material and hygiene products.

Overflows can also have significant cultural impacts due to the discharge of untreated wastewater to aquatic environments and impacts to the mauri (life force) of the waterbody

3 Key overflow management roles

A number of parties will be involved in responding to wastewater overflows in the region. Key parties are described in Table 1.

Table 1 Roles of key parties involved in overflow management in the Bay of Plenty

Role title	Description
Network Operator	Territorial Authority responsible for operating the applicable wastewater network. Network Operators have primary responsibility for ensuring wastewater overflows are managed appropriately and that the required parties are notified as described in Section 5.5.
Network Operator call centre	Call centre of the Bay of Plenty Territorial Authority responsible for operating the applicable wastewater network.
Network Operator service provider	Contractor/party with the responsibility for overflow incident response.
Network Operator service provider base	Work/depot/office base for the contractor/party with the responsibility for overflow incident response.
Network Operator Incident Controller/Contractor	Network Operator staff member appointed by the Network Operator for oversight of high risk incidents, as described in 5.3.1. The Incident Controller may be fulfilled by appropriately skilled and experienced staff such as Network Engineers or Pollution Response staff. The Incident Controller is dedicated to the overall control and management of the response. The responsibilities of the Incident Controller are further described in Section 5.3.1.
Site personnel	Staff/crew attending the site as part of the overflow incident response.
Environmental Health Officer	Environmental Health Officer of the Bay of Plenty Territorial Authority responsible for operating the applicable wastewater network.
BOPRC Call Centre/Pollution Hotline	Bay of Plenty Regional Council 24-hour pollution response hotline, or the general call centre, which will refer pollution incidents through to the pollution hotline. Expert technical advice and support will be provided by the Pollution Response Team as required.
BOPRC Regulatory Compliance	BOPRC Regulatory Compliance staff will provide regional compliance advice and undertake enforcement as required.
Toi Te Ora	Public health unit for the Bay of Plenty and Lakes District Health Boards. Toi Te Ora are responsible for providing public health advice to the response as needed. Toi Te Ora will be notified of incidents by the relevant Network Operator as described in Section 5.5 but will not have a hands-on role in the incident response unless exceptional circumstances require it.

4 Key definitions

4.1 Definition of dry and wet weather overflows

Dry weather overflows can be described as overflows caused by partial or full blockage of the pipe system typically from pipe failure, or from tree roots, fats, or items such as sanitary wipes being flushed down toilets.

Wet weather overflows can be described as overflows occurring as a result of overloading the wastewater system with stormwater during rainfall from inflow and infiltration. This overloading can occur due to illegal connections of roof downpipes, low gully traps or weak points in the pipe network.

4.2 Definition of overflow to land and to water

Overflows to water can be described as overflows to streams, wetlands, ponds/lakes, groundwater aquifers, beaches, open coasts, harbours and estuaries, or to areas from which the overflow could enter these waterbodies i.e. stormwater network or land adjacent to a waterbody.

Overflows to land can be described as overflows that do not enter or have the potential to enter water.

4.3 Definition of best endeavours approach

Reference is made in this Guide to a *best endeavours* approach to aspects of wastewater overflow response. For the purpose of this Guide, a *best endeavours* approach means that a Network Operator will do what is reasonable and practicable in the circumstances, having regard to factors such as:

- Health and safety;
- Available resources;
- The physical site;
- Access;
- The extent of contamination;
- The nature of the waterbody; and
- The nature of the overflow.

While there are a number of detailed procedures within the Guide, there will often be practical limitations to what can be done when responding to different scenarios. It is recognised that there are a range of factors that need to be considered and balanced when responding to an overflow and it may not always be practical to strictly follow the Guide.

4.4 Definition of public land

Public land is defined as any land that is not privately owned.

4.5 Definition of exposure

Exposure is defined as coming into contact with wastewater contaminants. Exposure can occur in a number of ways including:

- Oral Ingestion: potentially via pathways such as swallowing liquid or food that is contaminated with wastewater;
- Inhalation: breathing contaminated aerosols or inhalation of gases;
- Absorption: via skin or eye, ear, nose and throat linings; and

- Injection: direct passage of pathogens via cuts or other hazards in wastewater (e.g. needles).

Generally, the more people coming into contact with contaminants increases the level of risk, and the likelihood that one or more of those people may be more susceptible to illness than others.

4.6 Definition of contact recreation area

A *contact recreation area* is an area where recreational activities occur that bring people physically in contact with water, involving a risk of involuntary ingestion or inhalation of water[1].

4.7 Definition of washdown and flushing

Washdown is defined as the washing off of land areas and would typically involve capturing the water used for washdown and associated wastewater for disposal.

Flushing occurs in a waterway and is used to displace contaminants by flushing them through the system, either the stormwater system or waterway, with clean, often reticulated water.

5 Overflow response

Initial information gathering for overflow events immediately following their notification to Network Operators is usually conducted by the Network Operator call centre. This process is generally well established across the majority of Network Operators in the region and is not covered in detail in this Guide; however, a suggested procedure is included in Appendix C of this Guide for Network Operators who require some guidance on this process.

The following sections set out the best practice requirements for on-site response to wastewater overflows in the Bay of Plenty region (once the overflow has been called in and logged in the system by the Network Operator call centre). Response requirements are separated into the following key steps and these form the structure of the response section:

Assess:

- On-site health and safety
- On-site assessment of incident and request for additional resources
- Assess risk
- Signage and perimeter controls in place

Respond:

- Notify other parties
- Install containment
- Repair
- Clean up

An overview of these key steps is provided in Figure 1 at the end of the response section.

[1] MfE, 2003. Microbiological Water Quality Guidelines for Marine and Freshwater Recreational Areas.

The following response sections assign responsibilities to a number of key parties and these roles are defined in Table 1, Section 3 of this Guide. Overall responsibility for overflow response sits with the relevant Network Operator.

Key performance targets for overflow response are provided in Section 7 of this Guide.

5.1 On-site health and safety

All those responding to wastewater overflows on site can be exposed to a range of health and safety hazards, including members of the public who come into contact with wastewater contamination or with the response effort. Protecting health and safety must be the first priority during any overflow response.

The main health hazards associated with wastewater overflows relate to contact with potential pathogens. In some situations; however, hazardous chemicals associated with trade waste discharges or the build-up of gases may present additional health risks.

Workers involved in overflow response also face a wide variety of safety hazards on the job. The risk posed by these hazards may be increased due to the location or timing of the wastewater overflow. This Guide assumes that **all parties attending wastewater overflow incidents will be appropriately trained and have detailed site health and safety plans** in place to manage hazards associated with responding to wastewater overflows. No action should be taken that endangers workers or the public.

On arrival at the site, and before proceeding further, **all site personnel must identify and consider all potential health and safety hazards and establish whether the site is safe to enter**. Key considerations include:

- Is visibility acceptable?
- Is the stream at high flow?
- Is confined space entry necessary?
- Is there an escape route?
- Is there a tripping hazard?
- Is traffic control required?
- Is access limited or difficult (e.g. due to steep terrain or vegetation)?
- Is cell phone/radio coverage available?
- Could the discharge contain hazardous substances?

Access to the site should not be attempted if the site is not safe or if it cannot be made safe.

5.2 On-site assessment

The on-site assessment should be conducted by the Network Operator service provider response crew in accordance with the following. The on-site assessment process is intended to comprise a relatively quick appraisal of the situation and should be completed within a short time of arriving on the site.

The on-site assessment process will involve the Network Operator service provider completing the following series of steps, on arrival at the site. All information should be recorded and provided to the Network Operator on request.

- Implement health and safety requirements as described in Section 5.1.
- Sight the point of discharge (if possible).
- Assess whether the site presents health and safety risks to the public – i.e. can the public come into contact with wastewater or contaminated land, or with any machinery or equipment that may be required for the response?
- Identify the general area affected and the nature of the incident – is the overflow entirely on land or has contamination of a waterbody occurred, or is there a risk that it could? Is the overflow on *public land*?
- If the overflow is still occurring, what is the approximate rate of the overflow?
- If the overflow has entered, or could enter a waterbody, what is downstream? For example, if there is a bathing beach or stream swimming hole that could also become contaminated?
- If the overflow has entered, or could enter a waterbody, what is the approximate flow rate within the waterbody?
- Is the overflow liquid only?
- Assess the likely cause of the overflow and anticipated time to repair.
- Assess the resources required to respond to the incident.

On completion of the on-site assessment the primary response crew should call back to the Network Operator call centre to confirm the nature of the incident.

The primary response crew will also confirm with the Network Operator service provider base the nature of the incident and the resources required for the response.

5.3 Risk assessment

The risk level of an incident is assigned based on the risk to public health and to the environment receiving the overflow. Assessing the risk level of a wastewater overflow once details have been confirmed on-site determines whether other organisations must be notified and whether a dedicated Incident Controller should be appointed to oversee the response. The risk level will also determine whether environmental monitoring is required. Risk levels are described in Table 2.

Table 2 Incident risk levels

Risk level	Exposure / public health risk	Receiving environment	Example
Low	No risk of exposure or ingestion	Private land or remote land where there is limited public access	Overflow to private land / no public health risk
Medium	Limited risk of exposure or ingestion	Public land or land where may enter water due to proximity or heavy rain forecast - i.e. via entry to stormwater system	Overflow to public land / land where overflow may enter water / low public health risk
High	Risk of exposure or ingestion / contact recreation area or seafood gathering area	Water – i.e. stream, wetland, river, lake, sea	Overflow to water / large overflow to public land / public health risk

**Note the risk rating is the higher level of risk of the exposure / public health risk and the receiving environment assessment. I.e. if the overflow is to land (low (green) receiving environment risk) but is in a childcare centre (high (red) risk of exposure) the overall overflow risk is high (red). Refer to Section 4 for key definitions to assist with the risk assessment.*

5.3.1 Appointment of Incident Controller

For a High Risk wastewater overflow, a Network Operator Incident Controller is required to coordinate the overall response to ensure effective communication between the parties. This person may be a Network Operator representative or a representative of the Network Operator service provider with the appropriate skills and authorisations and can be the same person that responds to the overflow. As an incident develops, the role of Incident Controller may need to be transferred from one individual to another as circumstances or needs change. The Incident Controller will act as the central point of contact for all parties involved in the response.

The role and functions of the Incident Controller may differ between Network Operators, but are generally expected to include:

- Ensuring that appropriate on-site health and safety provisions and site controls are established and maintained throughout the incident;
- Providing technical support and direction to the Network Operator service provider;
- Auditing the Network Operator service provider response;
- Point of contact for all communications with BOPRC and Environmental Health Officer;
- Neighbour and public communications;
- Coordinating environmental monitoring;
- Ensuring that all appropriate public health warnings are made, and that warning signage is in place, in consultation with the Environmental Health Officer;
- Auditing the clean-up process;
- Incident reporting for High Risk incidents;
- Ensuring that the incident response is in accordance with best practice;
- Final incident closeout signoff.

Where BOPRC staff, Toi Te Ora, Tangata Whenua or the Environmental Health Officer offer advice on aspects of the response, this advice would be directed through the Incident Controller who will act on that advice, having regard to health and safety implications, feasibility and likely effectiveness of any associated actions.

The Incident Controller is also responsible for continually re-evaluating the incident against the risk level definitions during response.

5.4 Signage and perimeter controls

The Network Operator and the Network Operator service provider must act to protect public health and safety where the public have access to areas contaminated by overflows, or where the public may be placed at risk by works associated with the response. This will likely involve establishing appropriate site perimeter controls to secure the site. Placement of site safety warning signage, cones and warning tape at the site perimeter or at public access points may be required. These controls should remain in place until risks to the public from the overflow incident have been resolved (i.e. when clean-up is complete and sampling results indicate no health risk remains). Where ongoing or regular discharge is occurring or widespread public health risk exists, consideration of permanent signage may be required.

Warning signage should be erected by the Network Operator Service and should be put in place as soon as possible following the overflow at locations where the public may access a waterbody or beach. *A warning sign template* is presented in Appendix D. If there is a risk that downstream areas may become contaminated, then warning signage may need to be deployed at further locations.

In some situations, it may also be appropriate to carry out a neighbourhood letter drop to advise of the incident. Where appropriate, the media may need to be used to provide additional public

health warnings. The Environmental Health Officer will determine if this is required and arrange for it if necessary.

5.5 Notify other parties

For overflows assessed as Medium or High Risk, additional parties need to be notified through escalation.

While each of the Network Operators may adopt different mechanisms for escalating incidents, escalation will generally occur as follows:

On confirmation that the incident is Medium Risk, the Network Operator service provider will advise the Network Operator call centre (or other appropriate party), who will then complete the following notifications:

1 – Notify BOPRC pollution hotline (0800 884 883). This should occur ASAP, but within one hour of Network Operator service provider arriving on site and confirming incident is Medium Risk.

2 - Notify Toi Te Ora (0800 221 555).

On confirmation that the incident is High Risk, the Network Operator service provider will advise the Network Operator call centre (or other appropriate party), who will then complete the following notifications:

1 – Notify the on-call Network Operator Incident Controller of the incident, its status and location. On being notified of the incident, the Network Operator Incident Controller would then travel to the site. The Incident Controller should arrive on site as soon as possible but within 60 mins of the Network Operator arriving on site, if not already on site.

2 – Notify BOPRC pollution hotline (0800 884 883). This should occur ASAP, but within one hour of Network Operator service provider arriving on site and confirming incident is High Risk.

3 – Notify Toi Te Ora (0800 221 555). This should occur ASAP, but within one hour of Network Operator service provider arriving on site and confirming incident is High Risk.

An *Incident Notification Form* is included in Appendix E to assist with notification.

Iwi groups should also be notified in accordance with the relevant Network Operator Tangata Whenua Notification Procedure.

5.6 Install containment

Containment is most effective when used in parallel with the repair phase, where resources allow. Where resources do not allow, the evaluation and implementation of containment options must, if possible, be undertaken in advance of the repair phase.

Containing an overflow involves establishing a physical barrier to limit overflow dispersal, reducing impacts on downstream areas (including land and waterbodies) and minimising the extent of the clean-up. Containment must focus on the overflow as a whole (the solids and contaminated water) and not simply focus on solids.

Containment options will vary on a case-by-case basis.

Consideration will need to be given to the environmental setting. If the overflow has occurred upstream of a swimming beach, then high priority might be given to establishing containment to minimise downstream contamination. There will also be situations where containment is not

feasible or safe. If the overflow has been assessed as High Risk then containment will be overseen by the Incident Controller. Containment may not be feasible if:

- Health and safety risks prevent safe site access or safe deployment of containment.
- Physical constraints (e.g. topography, vegetation, buildings) prevent access.
- Stream flow rates make safe containment impracticable.
- Overflow rates make containment impracticable.

Priorities for the location of containment solutions should consider (in this order):

- At source containment (minimises off-site escape);
- Diversion of overflow away from waterbody (minimises contamination of waterbody); and
- Containment in a waterbody (minimises downstream contamination but should only be considered if other forms of containment has not been possible, contamination of the waterbody has occurred, and stream and overflow flow rates are such that containment can be implemented effectively and safely).

Where instream containment is required it may prove necessary to install this both above and below overflow discharges to minimise the rate of downstream dispersion. In these situations, diversion of the upstream flow to below the downstream containment location may be necessary, possibly utilising by-pass pumping. It may also be necessary to shift containment to expand the contained area following environmental monitoring results. A summary of containment options and tools and equipment that may be required is presented in Table 3.

Table 3 Potential overflow containment options

Containment site	Method	Resources required
At-source containment	Protection of stormwater systems by blocking stormwater grates or other points of entry.	Sandbags, pipe plugs.
	Establishment of temporary storage using temporary weirs / bunds, excavation of detention area, or provision of containment storage.	Sandbags, inflatable bunds, shovels, excavator, mobile storage, temporary ponding.
	Bypass pumping from ponding area or direct from upstream wastewater line to downstream wastewater line to bypass the affected section.	Pumps, hose, generator.
	Vacuum truck removal from ponding area and discharge to wastewater system or approved disposal site.	Vacuum truck, hose.
	Cessation or diversion of upstream discharges where feasible.	Contact contributing catchment and request cessation of discharges to wastewater system.
	Where liquid cannot be contained, installation of screening equipment at the overflow source to remove and recover floatables and coarse solids.	Screen.

Diversion away from a waterbody	Similar to at-source options, however, deployment will be remote from the point of discharge. The objective is to capture the overflow before it enters a waterbody or divert to it away.	As for at-source options.
Containment in a waterbody	Temporary instream dams / weirs formed by placement of sandbags to form dam across stream channel.	Sandbags, shovels.
	Upstream and downstream containment with stream flow diversion pumping to convey clean flow from upstream to downstream past the contained area.	Sandbags, shovels, pump, hose (with fish filters).
	Having established instream containment, vacuum pumping to remove and recover contamination would proceed.	Vacuum truck, hose.

Consideration should be given to any approvals from regulators that may be required for certain containment options.

Details of measures used to contain an overflow should be clearly documented and provided to the Network Operator on request.

5.7 Repair

Repairs to stop the overflow may involve a wide range of measures. It is essential that repair and return to service is completed as soon as practicable. Where resources allow, implementing the containment and repair phases in parallel is the most effective response. Where resources do not allow, the repair phase should follow the containment phase as described above.

Some overflows may require a two-stage repair approach, involving temporary repairs to stop the overflow followed by permanent repair works.

In all cases it is essential that a record be kept of the cause and required repair. Multiple overflow events at locations are indicative of a wider maintenance issue that may require additional works to address.

5.8 Clean-up

The clean-up of an overflow will be undertaken by the Network Operator service provider and will generally commence following the establishment of containment and repair of the overflow. If the overflow has been assessed as High Risk then clean-up will be overseen by the Incident Controller.

A *best endeavours* approach to clean-up should be taken, with the objective of achieving the following:

- Removal of contaminated water;
- Removal of solids and sludge;
- Removal of sanitary products and other debris; and
- Removal of dead fish (if applicable).

5.8.1 **Clean-up methods**

Clean-up may involve the following methods:

- Pumping / vacuum recovery of contaminated water;
- Vacuum recovery of sludge;
- *Washdown* of affected areas on land;
- Rake / spade /sweep to recover solids and debris, and then bagging of material for disposal at a facility approved to receive wastewater contaminants; and
- Rehabilitation for areas with prolonged exposure. This may require excavation, regrading and re-grassing.

Washdown should only be undertaken where *washdown* water and associated wastewater can be captured. All *washdown* water should be collected for disposal at an appropriate facility or discharged back into the wastewater network. Any plans for rehabilitation such as excavation will need to be scoped and appropriate resource management planning approvals carried out.

5.8.2 **Flushing**

Where contamination of the stormwater system has occurred or where residual material remains in a watercourse following clean-up, *flushing* using reticulated water supply may be appropriate. *Flushing* may be particularly effective during summer or when extended low flow periods exist in a watercourse.

Before commencing any *flushing* utilising reticulated water supply, agreement should be reached with the BOPRC Pollution Control and compliance staff that this action is appropriate. If reticulated water is used for *flushing* it may be necessary in some situations to implement measures to dechlorinate the *flushing* water before discharging it to a watercourse.

Ideally flushing water should be collected at the outmost extent of impact from the overflow, however this may not always be possible, and consideration should be given to the ultimate receiving environment where further controls such as signage may be required. A procedure for flushing is included in Appendix F.

Rotorua Lakes Council does not typically use flushing due to the lake receiving environment.

5.8.3 **Disinfection**

Where contamination of land has occurred and a public health risk exists following clean-up, disinfection may be appropriate. Disinfection should always occur with health warning signage in place. Warning signage needs to remain in place until the incident has been closed-out and / or environmental monitoring data indicates that the public health risk has been reduced to an acceptable level.

Where contamination of land has occurred, and a public health risk exists, disinfection may be appropriate following the clean-up. A range of disinfection methods are possible, including the application of disinfectant chemicals and the application of hydrated lime. UV disinfection by sunlight will also, overtime, render many potentially harmful pathogens inert.

It must be noted that disinfectants can adversely affect aquatic life and should only be used with appropriate controls to ensure contamination of a waterbody does not occur as a result of the application or subsequent rainfall. Lime must not be used in a situation where contamination of water could occur. Spray application of chemical disinfectants using a back-pack sprayer may be appropriate where there is a risk of lime contaminating a waterbody.

Where foul odours are affecting aesthetic values odours can be masked using odour masking sprays.

Disinfection of wastewater contamination in houses and buildings requires specialist public health advice. This level of disinfection is not covered in this Guide.

5.8.4 Fish rescue, recovery and screening

Where significant contamination of a waterbody has occurred, it may be necessary for the Network Operator service provider to undertake recovery of dead fish and possibly also the rescue of stressed fish or fish that have become trapped behind containment barriers. It is most likely that these will be eels.

To undertake fish recovery the Network Operator service provider should be equipped with a scoop net and a fish bin for holding live fish recovered from the waterbody. Live fish should be transferred to the fish bin with a small quantity of clean water and then transferred promptly upstream to a point above the contamination.

Appropriate fish screens must be placed on pump and vacuum intakes when operating these in natural waterbodies. These screens should be a prefabricated coarse wire / steel mesh screens (mesh size no greater than 10 mm) capable of being fitted to a range of pump intakes.

Dead fish should be removed from site and disposed of to an appropriate waste disposal facility.

It is recommended that the Incident Controller contact BOPRC for further advice with regard to fish rescue, recovery and screening. It may also be appropriate to contact Fish and Game New Zealand in some instances, for example, if the overflow incident is in the vicinity of a trout habitat or hatchery.

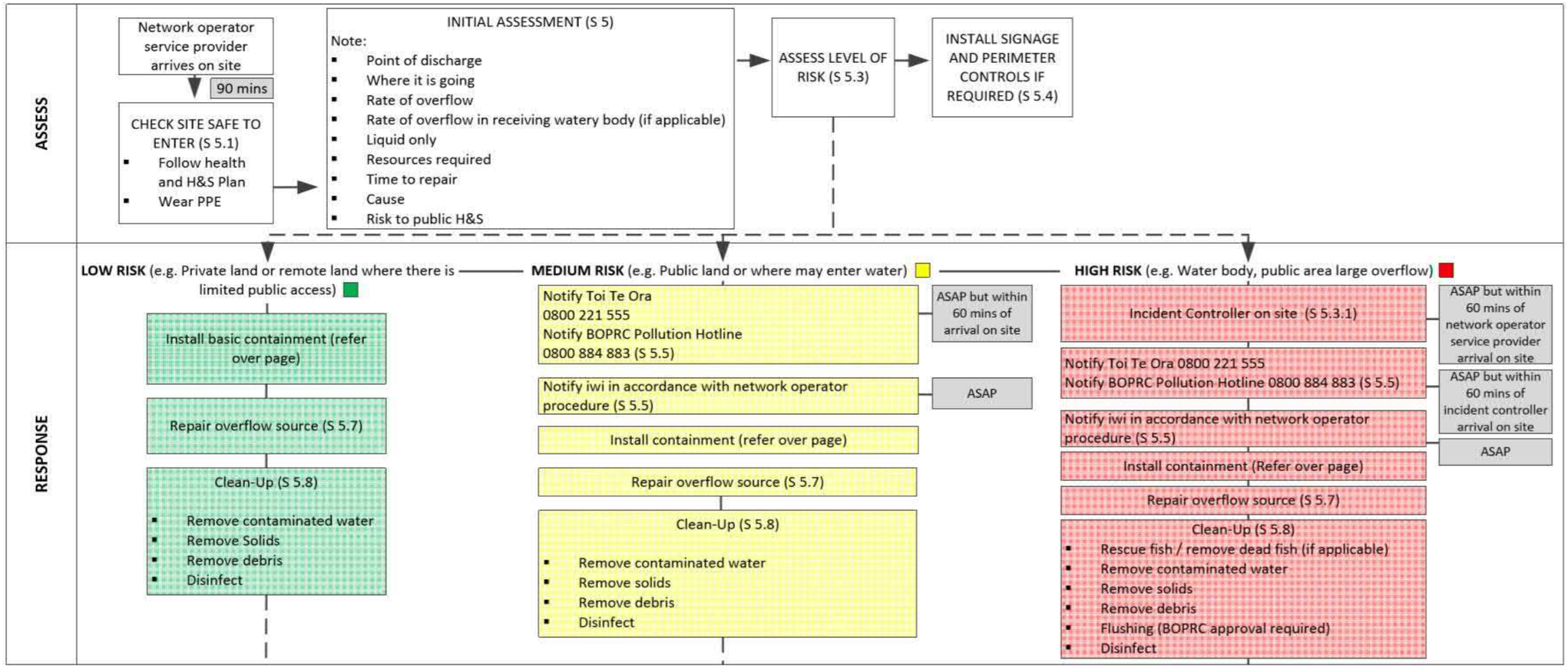


Figure 1 Overview of the assess and response steps

6 Environmental monitoring

Environmental monitoring should be carried out for High Risk overflow events as well as for Medium Risk overflow events to confirm if the overflow has entered water. Information collected will help to:

- Identify the extent of downstream contamination and hence the location of any required instream containment;
- Monitor and assess environmental and public health risks; and
- Confirm that the clean-up process has been effective.

Environmental monitoring can be completed by non-technical staff using the following simple environmental indicators:

- Visual cues;
- Odour cues;
- E. coli and Enterococci sampling; and
- Ammonia kit testing.

Further information on environmental monitoring, including timing, location and interpretation, is included in Appendix A. All environmental monitoring should be recorded and provided to the Network Operator on request.

7 Key performance targets

Key performance targets for overflow response are set out as follows:

Best Practice Criteria	Who	Performance Target
Network Operator service provider on-site	Network Operator service provider	Within 90 minutes of Call-centre notification unless agreed otherwise.
Initial notification of BOPRC Pollution Control Team that Medium or High Risk overflow has occurred	Network Operator call centre	ASAP, but within one hour of Network Operator service provider arriving on site and confirming incident is Medium or High Risk.
Incident Controller on site	Incident Controller	Within 1 hour of being notified of requirement to attend a High Risk overflow.
Notify Toi Te Ora	Network Operator call centre	ASAP but within 1 hour of Incident Controller confirming a High Risk overflow.
Notify Iwi	Network Operator call centre	ASAP
Monitoring	Incident Controller	Monitoring completed as appropriate for High Risk overflows.

Clean-up	Network Operator service provider	▪ Removal of solids; ▪ Removal of sanitary products and other debris; ▪ Removal of contaminated water; and ▪ Removal of dead fish (if applicable).
Close-out notification of BOPRC – High Risk overflows only	Incident Controller	Within ten working days of incident close-out.

8 Closeout and reporting

Incident closeout should occur when confirmation of clean-up to the required performance target (Section 7) has occurred and all phases of the incident response have been completed. Closeout will be carried out by the Network Operator Service Provider for Low and Medium Risk incidents. The Incident Controller is responsible for incident closeout for High Risk incidents. The closeout process will generally involve:

- Confirming that clean-up has been completed;
- Liaison with the Environmental Health Officer to assess the status of public health warnings, establish whether existing warning signage can be removed, or agree a program for ongoing or additional warnings;
- Assessing the need for any additional remedial works to prevent recurrence;
- Confirming that the incident has been managed in accordance with the Guide; and
- Confirming that the process has been appropriately documented with details provided to the Network Operator.

8.1 Incident closeout reporting

An *Incident Response Form* including incident closeout is provided in Appendix G. This template has been developed to serve as a tool for recording and documenting the incident management process for reporting to BOPRC and will be completed by the Network Operator using information provided by the Network Operator Service Provider at closeout.

Reporting of incident closeout of High Risk overflows (using the *completed Incident Response Form*) should be made to the BOPRC Pollution Control Team by the Network Operator within 10 working days of closeout being completed. A copy should also be provided to any other parties notified through the response process for High Risk overflows. An overview of the close out and reporting process is set out in Figure 2.

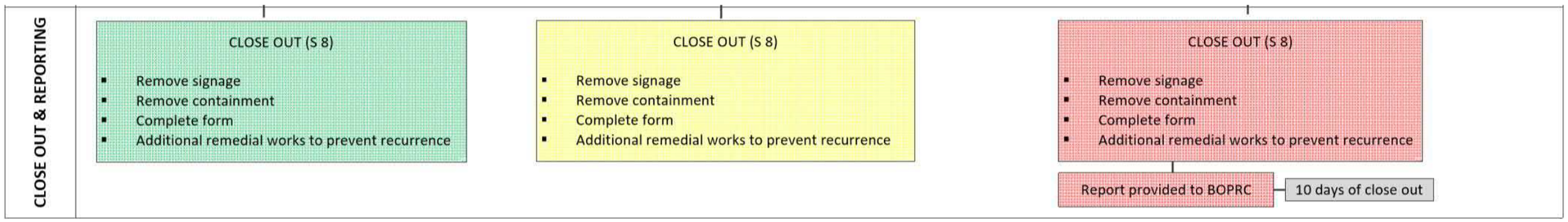


Figure 2 Overview of close out and reporting process

8.2 Annual reporting

In additional to reporting individual High Risk overflows as described above, the Network Operator should provide an annual report of all wastewater overflows to BOPRC by 31 August for the preceding July – June financial year. An *annual report template* is provided in Appendix H. The annual reports will provide valuable information for future investigations and preventative planning.

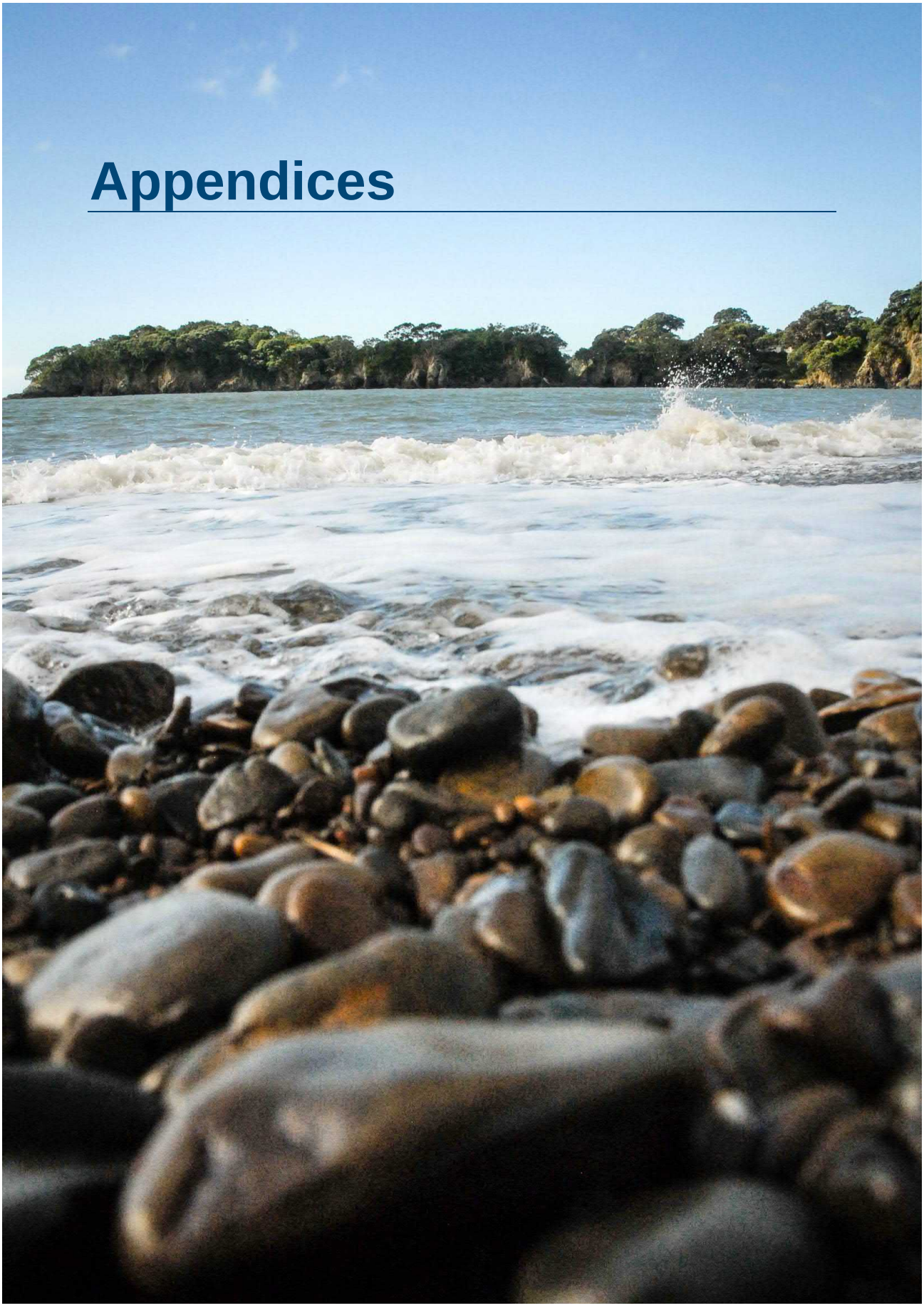
8.3 De-brief

De-briefings should be held after High Risk incidents and planned exercises. The purpose of a de-brief is to use the experiences and lessons learned during the incident or exercise to make improvements, so that incidents can be prevented from occurring again or managed more effectively. De-briefings are also used to identify and recommend other risk mitigation measures that may be required e.g. capital works.

9 Auditing and updates to procedures

It may be necessary for Network Operators to audit their response to wastewater overflow incidents against the Guide. To be effective this process should be undertaken on a half yearly basis and involve review of the response for a selection of incidents against the Guide and any supporting Network Operator procedures. Audit findings will serve as a basis for updating Network Operator procedures and the Guide, as required.

Appendices



Appendix A: Monitoring guidance

Environmental Monitoring

Purpose

Environmental monitoring of High Risk overflows should be used for the following purposes:

- To identify the extent of contamination and hence the location of any required containment;
- To monitor and assess environmental and public health risks; and
- Confirm the clean-up process has been effective with no other issues in this location.

Additionally, for Medium Risk Overflows, monitoring using an ammonia kit can be used to confirm a suspected overflow from land to water.

The Incident Controller has responsibility for ensuring that monitoring is undertaken for High Risk overflows as appropriate.

Methods

As environmental monitoring may typically be completed by non-specialist staff, this Guide recommends using a range of relatively straight forward methods to monitor wastewater contamination:

- Visual cues;
- Odour cues;
- E. coli and Enterococci sampling; and
- Ammonia kit testing.

Visual and odour cues can be used to detect wastewater contamination for most overflow receiving environments.

E. coli can be used to indicate contamination in freshwater environments and Enterococci to indicate contamination in saltwater environments.

Ammonia testing is recommended to confirm wastewater contamination of a waterbody where other signs are not immediately obvious, i.e. when an overflow has occurred to land and it needs to be confirmed whether a waterbody has received any wastewater. It can also be used to verify clean-up has been effective.

The Incident Controller should assess what type of monitoring is required in each situation. Any samples collected must be collected using appropriate techniques and care must be taken not to contaminate the sample.

Required timing and duration

Monitoring should begin as soon as possible and continue past the completion of clean-up. If monitoring results show the potential for residual contamination, monitoring should continue for a further three days, until results are satisfactory. The Incident Controller should assess the required timing and duration of monitoring in each situation.

Location of monitoring

Data should be collected over as wide an area as possible. This will mean that accessible points upstream and downstream of an overflow discharge will need to be visited to build up a picture of the spatial extent of contamination. As a minimum, where practical and safe to do so, monitoring should occur at a location upstream (for comparison), at the site of the overflow entering the waterway, and downstream of the overflow entering the waterway.

Location of monitoring in an open water body receiving environment such as a lake, estuary or harbour requires case by case design due to the potential effect of wind and tides on dispersion and mixing. Generally, a transect across the ‘mouth’ of a suspected contributing waterway may help to confirm the source and presence of wastewater contamination. Monitoring can also be

located at regular intervals along the shoreline both up shore and down shore from the suspected discharge point to delineate the extent of the contamination. The same sample locations can be used to verify when clean-up is complete. In complex cases it may be required to engage an expert to advise on appropriate monitoring and location.

Health and safety

Appropriate care is required when sampling in waterbodies and extra precaution is required where wastewater contamination may be present. Utilising a pole sampler will make sample collection from the bank/shore easier and reduce the risk of sample contamination. Where contact with contaminated water is required waders may prove necessary and disposable rubber gloves should be worn. Care should also be taken when working around water, and this should be carried out in accordance with an appropriate health and safety plan for the task at hand.

Interpreting data collected

Data collected using the above methods will need to be interpreted to determine if wastewater contamination may be present. The following can be used to guide the interpretation:

Method	Result	Interpretation
Visual and odour cues	Presence of faecal solids, paper, sanitary products	Wastewater overflow contamination present.
	Black / grey water	Wastewater overflow contamination likely present.
	Wastewater fungus growth or 'blood worms' present in the stream bed	Wastewater overflow contamination likely present for longer period of time.
	Wastewater odour	Wastewater overflow contamination likely present.
E. coli (freshwater)	> 550 E. coli per 100 mL[2]	If the result is greater than 550 E. coli per 100 mL and another monitoring method in this table indicates likely presence of wastewater, wastewater overflow contamination is likely present. Consideration should be given to potential for elevated background levels in certain areas.

[2] Consistent with the Action/Red Mode for Surveillance, alert and action levels for freshwater. MfE, 2003. Microbiological Water Quality Guidelines for Marine and Freshwater Recreational Areas.

Enterococci (marine)	> 280 Enterococci per 100 mL[3]	If the result is greater than 280 Enterococci per 100 mL and another monitoring method in this table indicates likely presence of wastewater, wastewater overflow contamination is likely present.
Ammonia	< 3 ppm: Low reading (compare with upstream sample)	Wastewater overflow contamination potentially present. Compare with upstream sample result.
	> 3 ppm: Moderate reading	Wastewater overflow contamination likely present.
	> 6 ppm: High reading	Wastewater overflow contamination likely present.

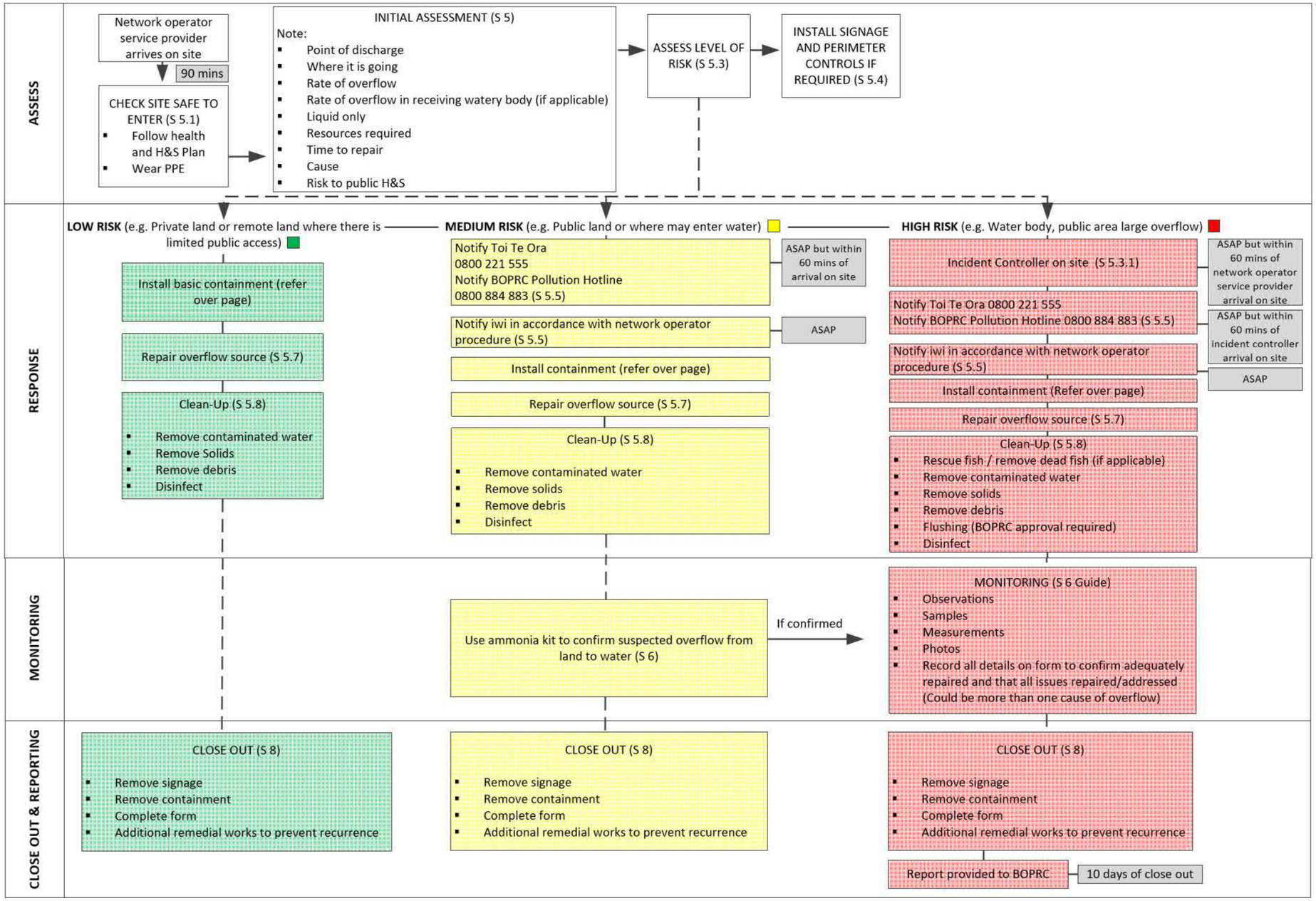
Note: The individual methods above are indicative only and a combination of methods is recommended to establish the likelihood of contamination. Of these methods, ammonia testing provides the strongest practical tool for assessing the likelihood of contamination. However, it is not suitable as a complete assessment of public health risk. Establishing a definitive basis for any contamination would require specialist and possibly detailed sampling and analysis.

Training

Specialist training in environmental monitoring may be required to ensure that samples are collected appropriately, monitoring equipment is utilised correctly and data is interpreted correctly. In some situations, specialist input may be required to conduct monitoring, undertake data analysis and provide specialist interpretation. This may include higher risk situations.

[3] Consistent with the Action/Red Mode for Surveillance, alert and action levels for marine waters. MfE, 2003. Microbiological Water Quality Guidelines for Marine and Freshwater Recreational Areas.

Appendix B: Process overview diagram



NB: Relevant sections of guide indicated in brackets for reference.

INSTALLING CONTAINMENT OVERVIEW (Refer to S 5.6 of guide)

CONSIDER:
- Access
- Rate of overflow
- H & S
- Approvals from Bay of Plenty Regional Council
- Stream flow (if applicable)

HIERARCHY OF CONTAINMENT	METHOD	RESOURCES
AT SOURCE	Protection of storm water systems by blocking stormwater grates or other points of entry.	Sandbags, pipe plugs
	Establishment of temporary weirs / bunds, excavation of detention area, or provision of containment storage.	Sandbags, inflatable bunds, shovels, excavator, mobile storage, temporary ponding.
	Bypass pumping from ponding area or direct from upstream wastewater line to downstream wastewater line to bypass the affected section.	Pumps, hose, generator.
	Vacuum truck removal from ponding area and discharge to wastewater system or approved disposal site.	Vacuum truck, hose.
	Cessation or diversion of upstream discharges where feasible.	Contact contributing catchment and request cessation of discharges to wastewater system.
	Where liquid cannot be contained, installation of screening equipment at the overflow source to remove and recover floatables and coarse solids.	Screen.
DIVERSION AWAY FROM A WATERBODY	Similar to at-source options, however, deployment will be remote from the point of discharge. The objective is to capture the overflow before it enters a waterbody or divert to it away.	As for at-source options.
CONTAINMENT IN A WATERBODY	Temporary instream dams / weirs formed by placement of sandbags to form dam across stream channel.	Sandbags, shovels
	Upstream and downstream containment with stream flow diversion pumping to convey clean flow from upstream to downstream past the contained area.	Sandbags, shovels, pump hose (with fish filters).
	Having established instream containment, vacuum pumping to remove and recover contamination would proceed.	Vacuum truck, hose.

Appendix C: Initial information gathering process

Suggested Initial Information Gathering and Notification Process

On receiving a report of a potential wastewater overflow, the Network Operator call centre staff will carry out an initial information gathering process so that they can brief the Network Operator service provider and deploy them to the site for further assessment and confirmation.

Required actions of network operator call centre on receiving initial report

Overflow incidents are often reported directly to the Network Operator call centre. Call centre staff will complete initial information gathering for the incident to establish the required response and will then notify the Network Operator service provider so that they can undertake further assessment.

Required actions of Network Operator staff/service provider if receive initial report

If the Network Operator engineering staff or service providers receive calls from the public directly, they should refer the caller to the Network Operator call centre (or log the call with the Network Operator call centre) to ensure that it is entered into the appropriate system and the appropriate organisations are notified.

Overflow incidents can also be identified through routine inspections or other site work by both Network Operator staff and service providers. Again, in these situations, notification of an incident needs to be made to the Network Operator call centre to ensure that it is logged into the system and the appropriate organisations are notified.

The initial information gathering process will involve the following series of steps, to be undertaken by the **Network Operator call centre**:

1. Log the call – establish a record of the caller, time, description of the incident and the address where it has occurred.
2. Record the nature of the incident using the following questions:

   Q - Is the overflow occurring within private property?

   NOTE - If so, then the responsibility for repair may fall with the private landowner. In some situations, wastewater from the public system can back-up and overflow via private gully traps. In this situation, the discharge would likely be continuous and of a significant volume. If the discharge occurs only when appliances connected to the private line are used, then it is likely that the overflow is due to a problem with the private drainage system and should be referred to the Environmental Health Officer. In addition, if there is a risk of the overflow entering or having entered water, the overflow must be referred to the BOPRC Pollution Hotline. In any case, the Network Operator service provider should be dispatched to site to confirm details.

   Q - Is the overflow continuous and/or of high volume?

   Q - Is the discharge to, close to, or is there a risk of it entering a stream, wetland, lake, pond, sea or a stormwater drain?

   Q - Is the discharge to land?

3. Notify the Network Operator service provider – having established the type of incident the call centre will then contact the Network Operator service provider and supply them with necessary details of the site and the overflow.
4. Dispatch Network Operator service provider to the site so that they can confirm the nature of the overflow and confirm details back to the Network Operator call centre (as part of the response).

Appendix D: Warning sign template

KIA TŪPATO
TEMPORARY
HEALTH WARNING!

KAUA E KAUKAU
NO SWIMMING

KAUA E HII IKA
NO FISHING

KAUA E KOHI MĀTAITAI
NO SHELLFISH

This sign will be removed when water quality returns to normal

Date:

For more information call: TLA TO INCLUDE LOGO AND CONTACT DETAILS

Appendix E: Notification template

Note: This form is intended to be used for notification of Iwi in writing, or for other parties at the Network Operator's discretion

To: ……,

This is to notify you that a wastewater overflow has occurred. The details are as follows:

Physical address of overflow

Cause of overflow

Affected waterways

Date and time of overflow

Risk level

Has warning signage been put in place?

General location of warning signage

Is environmental monitoring required?

Current and planned actions

Next update from …… due ……

Estimated all clear date/time

Additional information/comments

Appendix F: Flushing guideline

Guideline for Flushing

Where contamination of the stormwater system has occurred or where residual material remains in a watercourse following clean-up, *flushing* using reticulated water supply may be appropriate. *Flushing* may be particularly effective during summer or when extended low flow periods exist in a watercourse as the additional baseflow will dilute and disperse contaminated water. *Flushing* should not, however, be seen as a clean-up method for every wastewater overflow. *Flushing* is a tool that should be utilised when conditions are such that the impact of *flushing* will not cause any further environmental damage or where not *flushing* will result in greater harm. If reticulated water is used for *flushing*, it may be necessary in some situations to dechlorinate the *flushing* water before discharging it to a watercourse as residual chlorine is toxic to aquatic ecosystems.

Before commencing any *flushing* utilising reticulated water, **agreement should be reached with BOPRC** that this action is appropriate. If *flushing* of a watercourse is to be undertaken the following process should be followed.

1. Incident Controller confirms clean-up is undertaken to a point where only *flushing* could further improve the environment.
2. Agreement reached with BOPRC that flushing is appropriate.
3. Flushing carried out in accordance with approval from Bay of Plenty Regional Council, with consideration of the following:

- Potential for adverse environmental effects on natural water courses associated with residual chlorine in treated drinking water.
- Potential for adverse environmental effects on natural water courses associated with any scour and erosion that might occur during a discharge.
- Use of appropriate environmental protection measures. These could include:
  - Establishing a stabilised discharge flow path – this reduces the risks of sediment erosion, and could include:
    - Direct discharge to curb and channel;
    - Using sandbags and a geotextile fabric to reinforce a discharge flow path;
    - Riprap rock protection may be required at transmission discharge locations.
    - Checking receiving environment – assess channel capacity, remove debris that might become mobilised;
  - Using dechlorination measures if mains source chlorinated reticulated water is used, such as running the water across open ground for 100 m or more where possible to allow chlorine to evaporate.
  - Collecting flush water at the outmost extent of impact from the overflow; however, this may not always be possible, and consideration should be given to the ultimate receiving environment where further controls such as signage may be required.

Through the flushing process the effectiveness of environmental controls should be monitored as per the *Environmental Monitoring* procedure. Duration and frequency of flushing will be determined by monitoring results. Decisions to use flushing and approval from BOPRC should be recorded on the *Incident Response Form*.

Appendix G: Incident response form

Wastewater Overflow Incident Form

Form instructions: Fill out all fields where there is no colour coding. Where there is a colour tick box, only fill out the corresponding question / section if required for the incident risk rating (i.e. only fill out the monitoring section for high risk (red) overflows).

Site Location:		Assessor:	
Asset Number:		Job Number:	
Date:		Incident Controller (if appointed):	
Time on site:		Weather Conditions:	

ASSESS

What is the ultimate receiving environment?

……

Has the overflow resulted in exposure / public health risks (i.e. does access need to be restricted)? If yes, explain below what measures have been implemented (e.g. warning signs, including public health signage, tape, cones etc.)	Yes	No

Measure(s) deployed	Date	Time	Location
……			
……			
……			

RISK RATING

Exposure / public health risk	☐ No risk of exposure or ingestion	☐ Limited risk of exposure or ingestion	☐ Risk of exposure or ingestion / contact recreation area
Receiving environment Is the overflow into or onto	☐ Private land	☐ Public land ☐ Land - may enter water due to proximity or heavy rain forecast	☐ Water
Risk Level and time of declaration	Overflow to private land / no public health risk	Overflow to public land / land where overflow may enter water / low public health risk	Overflow to water / large overflow to public land / public health risk
	Low Time ……	Medium Time ……	High Time ……

Note the risk rating is the higher level of risk of the exposure / public health risk and the receiving environment assessment. – i.e. if the overflow is to land (low (green) receiving environment risk) but is in a child care centre (high (red) risk of exposure) the overall overflow risk is high (red)

Incident Controller appointed for High Risk overflows? ☐

Estimated flow rate of overflow	☐ Trickle	☐ Flow	☐ Gushing	☐ No longer overflowing
Estimated flow rate of receiving water (if applicable)	☐ Small stream (<1 m wide / 0.5 m deep) / low flows)	☐ Medium stream (1-2 m wide / 1 m deep) / moderate flows)	☐ Large, swift flowing	☐ N/A / drain

Incident description (visible solids, anerobic water, 'blood' worms visible)	……
Resources required/deployed	……
Primary reason/cause of wastewater overflow	……

RESPONSE

Initial notifications made				
☐ ☐ ☐ Call Centre Time: ……..	☐ ☐ BOPRC Pollution Hotline Time: …….. 0800 884 883	☐ ☐ Tangata Whenua Time …….. Contact: …….. ***Refer Iwi Notification Procedure***		
	☐ ☐ Toi Te Ora Time: …….. 0800 221 555	☐ Other Time: …….. Reason: ……		
Was containment established?			Yes / No / N/A	
At source (how):			Date/time: ……	
Diversion (how):			Date/time: ……	
Instream (how):			Date/time: ……	
Any new containment required:			Date/time: ……	
Was the repair completed/ service restored? And how? (explain below)			Yes / No	
……			Date/time:……	
Is this a temporary fix?			Yes / No	
Is follow up work required?			Yes / No	
If yes what?	……			
By who?	……			
Has clean-up been satisfactorily completed?			Yes / No	
Clean-up work undertaken	(i.e. Removal of solids, paper, sanitary goods. debris, dead fish, contaminated water etc.)……		Date/time: ……	
Was flushing required? (if no, go to next section (***For High Risk Overflows***)			Yes / No	
If yes, was approval to flush given by BOPRC?			Yes / No	
			Name: …… Date: ……	
Was Incident Controller onsite? (required for flushing)			Yes / No	
			Name: ……	
Were BOPRC staff onsite?			Yes / No	
			Name: ……	
Details of flushing process used	……		Date/time: ……	
Fish relocation requirements	……		Date/time: ……	
Other requirements	……		Date/time: ……	
How long did it take to stop the overflow?	……			
Incident Controller signoff (signature): ……			Date/time: ……	

MONITORING

For High Risk Overflows ☐

Observations (visual and odour) Assessor: ……

Location #	Description	Date	Time	Faecal Solids	Sanitary Products	Odour	Black/ Greywater	Photo ref
1	……	……	……	☐	☐	☐	☐	……
2	……	……	……	☐	☐	☐	☐	……
3	……	……	……	☐	☐	☐	☐	……
4	……	……	……	☐	☐	☐	☐	……

Ammonia Kit Assessor: ……

Location #	Description	Date	Time	Parameter	Result
1	……	……	……	……	……
2	……	……	……	……	……
3	……	……	……	……	……
4	……	……	……	……	……

Samples Round 1 Assessor: ……

Location #	Description	Date	Time	Label Ref	Date to Lab	Analysis Required	Result
1	……	……	……	……	……	……	……
2	……	……	……	……	……	……	……
3	……	……	……	……	……	……	……
4	……	……	……	……	……	……	……

Samples Round 2 Assessor: ……

Location #	Description	Date	Time	Label Ref	Date to Lab	Analysis Required	Result
1	……	……	……	……	……	……	……
2	……	……	……	……	……	……	……
3	……	……	……	……	……	……	……
4	……	……	……	……	……	……	……

Samples Round 3 Assessor: ……

Location #	Description	Date	Time	Label Ref	Date to Lab	Analysis Required	Result
1	……	……	……	……	……	……	……
2	……	……	……	……	……	……	……
3	……	……	……	……	……	……	……
4	……	……	……	……	……	……	……

Samples Round 4 Assessor: ……

Location #	Description	Date	Time	Label Ref	Date to Lab	Analysis Required	Result
1	……	……	……	……	……	……	……
2	……	……	……	……	……	……	……
3	……	……	……	……	……	……	……
4	……	……	……	……	……	……	……

Environmental monitoring complete with observation and results indicating no on-going environmental or public health risk? ☐

CLOSEOUT AND REPORTING			
	Containment removal approved by Incident Controller?	Yes	No
	Site safety measures and signage removed?	Yes	No
	Is there a history of overflow incidents or faults in same location or line?	Yes	No
	Describe any historic events ……		
	Is rehabilitation / reinstatement required/ additional remedial works required?	Yes	No
	If yes what? ……		
	By whom? ……		
	What proactive measures are being undertaken to reduce likelihood of re-occurrence? ……		
	Incident Controller sign off	Date: ……	Time ……
	Report Provided to BOPRC	Date: ……	
	Photographs attached?	☐	

Appendix H: Annual report template

To be provided to BOPRC by 31 August annually for the preceding financial year

Network Operator:

Number of overflows to water in reporting period:

Number of overflows to land in reporting period:

ID	Date	Location name	Address	Assets involved	Cause	Weather conditions	Ultimate receiving environment	Risk level	Method used to resolve	Monitoring undertaken	Toi Te Ora and BOPRC informed?	Notes/details

9.3 Wastewater Activities Report August 2022

File Number: **A13849280**

Author: **Radleigh Cairns, Manager: Drainage Services**

Authoriser: **Nic Johansson, General Manager: Infrastructure**

PURPOSE OF THE REPORT

1. The wastewater activities report provides information on the current activities in the wastewater area.

RECOMMENDATIONS

That the Wastewater Management Review Committee:

(a) Receives the report "Wastewater Activities Report August 2022".

DISCUSSION

Wastewater Programme Business Case

2. The Wastewater Programme Business Case (PBC) has been initiated to define a 'preferred way forward' for future investment for the marine outfall and the wastewater scheme. TCC is currently working on integrating its network and plant strategies to enable integrated investment and a PBC is an ideal vehicle to address this. A project team has been established to work through the PBC process consisting of technical and planning experts, staff and tangata whenua representation from the Wastewater Management Review Committee. Collectively they will work to identify key issues with the wastewater scheme, develop objectives for future investment and propose possible options or responses which could be implemented to address to these issues.

3. The team will assess a long list of options against broad range of prescribed criteria, considering environmental, cultural, and economic outcomes. Utilising a broad range of criteria aligns well with the changes indicated through the Three Waters Reforms where there will be an increased focus on improved environmental outcomes (e.g., through a new NES for Wastewater Discharges and Overflows), and greater consideration of cultural values when upgrading networks and plants.

4. Following assessment against the criteria, a short list of options will be the subject of further analysis. These long and short lists are likely to include both infrastructure and non-infrastructure responses.

5. The PBC defines a 'preferred way forward' for future investment across the wastewater scheme as a whole and will guide strategic planning for Council's wastewater activity, inform future detailed business cases and key strategic documents such as the Long-Term Plan and 30 Year Infrastructure Strategy. It will also set the scene for wastewater when Tauranga City potentially moves into a new water services entity.

6. Progress to date on the PBC includes draft outputs from the project Team for the following:

   - Investment Logic Map: confirm problem statements and define benefits from investment
   - Benefits, KPIs and Measures: baseline and target values to be confirmed
   - Investment Objectives
   - Investment Scope: levels of scope the investment is required to deliver

- Key Service Requirements: which key services and to what level (minimum, intermediate, maximum) the programme investment is expected to deliver.

7. The next steps for the PBC include:
   - Recommence formal PBC workshops with the Project Team to confirm:
   - Refinements made by Tangata Whenua representatives to outputs a.-e. (refer Attachment 1).
   - Assessment Criteria: against which long list programme options will be evaluated.
   - Long list of options: that can deliver the investment objectives
   - Long list assessment: of options against criteria
   - A short list of options: for further analysis.
8. This work will be carried out over a series of formal PBC workshops to occur over the remainder of 2022 and possibly into early 2023. Given the volume of material to be covered, complexity and rate of progress, timing for workshops is uncertain as is the date for ultimate completion of the PBC (where the 'preferred roadmap for investment' will be confirmed).
9. Development of a stakeholder engagement plan for both community and cultural engagement/communications to support the PBC is required. This will likely include workshops seeking input and feedback from the Te Rangapu and Iwi and Hapu groups and presentations to the Te Awanui Tauranga Harbour Advisory Group at a minimum. The engagement plan will identify other stakeholders and also reflect the points in the PBC process at which this input and feedback should be sought.

Te Maunga Upgrades

Bioreactor Two

10. Two contractors have established on site, one (Brian Perry Civil) is carrying out the ground improvements, the other (HEB Construction) is commencing with the manufacture of precast elements for the structure.
11. The ground improvement work trials are still ongoing while TCC and the contractor resolve pile quality issues. A further site trial has commenced and if successful it is anticipated that ground improvements will be complete by the end of March 2023.
12. HEB Construction, who are constructing the above ground works, expect to have completed the manufacture of all of the precast elements by November 2022 and will have to wait until the ground improvement work is completed before commencing with the erection of the structure.
13. The scheduled date for completion of Bioreactor 2 is December 2023 however this will be reviewed once the ground improvement issues are resolved.

Landward Outfall

14. This project is proceeding well with all of the 1200mm diameter pipeline now laid in the ground. Hydrostatic testing of the pipeline is underway and the pipeline will become operational at the beginning of October 2022.
15. Council is still assessing options for lining the remaining 450m of existing landward outfall. Staff recently received a Cultural Impact Assessment from Nga Potiki a Tamapahore Trust for one of the proposed options and this is currently being reviewed. The lining itself does not require consent as it is allowed for in the current discharge consent and so the preference is

to progress options that do not require any further consenting and are less intrusive on the surrounding area.

Clarifier Three

16. Piling trials are due to begin and the preliminary design phase is on track for completion at the end of September 2022.
17. The construction of the foundation system and floor slab has been brought forward and will commence in April 2023. The above ground works will be carried out thereafter. The overall result will be that Clarifier 3 could be completed 8 months ahead of programme.

Desludging Pond 1

18. The contractor has established on site and is finalising their equipment set up. Desludging will commence in September and continue for approximately 18 months dependent on the amount of sludge within the pond. Council will increase the monitoring of seepages from quarterly to monthly while desludging is underway and work with the contractor to manage flows during the works.

Opal Drive Pumpstation Upgrade

19. Opal Drive Pump Station is a key pump station as it pumps the majority of wastewater flows from the eastern and central Papamoa area and Wairakei Urban Growth Area (UGA) through to the Te Maunga wastewater treatment plant (TMWWTP), future flows from the Te Tumu UGA will also pass-through Opal pump station.
20. The current pump station occupies 1980m² at the northern end of 45 Opal Dr, the total site area is 8390m². 45 Opal Dr is a designated site (C81) for the purpose of a “wastewater pumping station” in the Tauranga City Plan. Kainga Ora’s transitional houses have recently been removed from Site B to enable the ground investigations and subsequent construction of a new Opal Dr pump station. The Kainga Ora housing will remain on Site A for at least another 5 years (**Figure 1**)

Figure 1: *Opal Drive Pump Station (PS Site). Also include 45 Opal Dr: Designation boundary in red with the current pump station site outlined in blue, transitional housing sites A&B outlined in black and green respectively.*

21. The preliminary design of the pump station has been completed which provides an understanding of the site layout and above ground structures to be constructed as part of the project. It is Council's intent to design these structures to fit in with the residential setting of the area.
22. As part of the construction of the new pump station the existing incoming and outgoing wastewater pipelines will need to be realigned. The eastern corridor wastewater strategy also anticipates two additional wastewater pipelines: from the future Wairakei pump station to Opal pump station and from Opal pump station to Te Maunga Wastewater Treatment Plant. They are expected to be constructed in the current road corridors between the Wairakei Stream and the coast.
23. The comprehensive stormwater consent (RC63636) provides for the duplication of all the storm water culverts on the Wairakei stream. We expect to deliver these culvert upgrade works on Opal Dr at the same time as the wastewater works to avoid disrupting the community twice in this area and for efficiency in undertaking the work.
24. We are in the process of engaging with mana whenua in relation to this project, as part of this we are seeking advice on whether it is appropriate to include cultural elements in the aesthetic design of the pump station structures and/or landscaping. If so, then we would want to work with mana whenua to include those cultural elements.

Consent Monitoring

25. All results from receiving environment sampling are within consented limits. There has been an increase in seepage rates due to higher levels in Pond 1 resulting from the increase in rainfall over the winter months.
26. No odour complaints regarding the treatment plants have been received. The bi-annual odour survey is due to take place in the last quarter of 2022.

Environmental Mitigation & Enhancement Fund

27. The Wastewater Management Review Committee appointed two representatives to the appointment panel in June 2022. Staff are working with these committee members to advertise an expression of interest for the independent panel that will review any applications to the fund. Council expects the panel to be in place before the end of 2022 for applications to open in early 2023.

NEXT STEPS

28. Further updates will be provided at the next Wastewater Management Review Committee (WWMRC) Meeting.

ATTACHMENTS

Nil

10 DISCUSSION OF LATE ITEMS

11 CLOSING KARAKIA