

**BEFORE THE INDEPENDENT HEARING COMMISSIONERS
FOR GISBORNE DISTRICT COUNCIL**

IN THE MATTER: of the Resource Management Act 1991

AND

IN THE MATTER: of applications by Gisborne District
Council for resource consents associated
with wastewater overflows

**SUMMARY STATEMENT OF EVIDENCE OF NEVILLE EDWARD WEST
– OVERVIEW OF WASTEWATER NETWORK, ISSUES AND RESPONSES**

13 July 2021

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INTRODUCTION

1. My full name is Neville Edward West. I am employed by the Gisborne District Council (**GDC** or **Council**) as the Water Utilities Manager. I am the joint project lead for this project, along with Mr Wolfgang Kanz. I have the qualifications and experience set out in my Evidence in Chief (**EIC**).

SUMMARY OF EVIDENCE

2. GDC owns and operates an essential wastewater system (the GWS) that services the city of Gisborne, collecting wastewater from houses, businesses and industry and transport this via a series of pipes and pumping stations to the WWTP. It is explained in detail in Section One of my EIC. The Gisborne city population served by the wastewater network is 32,579. We have about 15,278 connections. The network consists of:
 - (a) 226km of mains;
 - (b) 2856 manholes;
 - (c) 91km of laterals;
 - (d) 40 pump stations; and
 - (e) 1 treatment plant (**WWTP**).
3. A map of the network is shown in Figure 1 of my EIC. **[Refer to Figure 1]**. A network schematic is shown in Figure 2 of my EIC. **[Refer to Figure 2]**.
4. The GWS is sized and operated in accordance with current engineering practice, to convey six times average dry weather flow (**ADWF**).
5. 50% of the reticulated network is located on private property and is owned by the property owner, with Council publicly owning and managing the remaining 50%. The two components operate as one network, which presents specific management challenges.
6. It is standard wastewater design practice to install overflow relief points in wastewater networks to protect public health and to protect important infrastructure components. The GWS is no different and contains primary, secondary and tertiary overflow points as set out in the Application and my EIC. **[Refer Table 1 and Figure 4]**.

Causes of Wet Weather Overflows (WWO)

7. The causes of WWO are understood. WWO occur as a result of excessive rainwater/stormwater entering the network through I&I. This occurs primarily on private property, as a result of incorrect drainage or illegal connections, flood water overtopping and cracked and leaking gully traps, and infiltration into pipes through cracks and joints.
8. Council has already undertaken a significant work and capital investment programme on Council's part, with the initial focus being largely on Council's assets. This is described in the Application and my EIC. Council's focus has now shifted to resolving issues originating on private property, through the DrainWise Programme (outlined in the evidence of Mr Kanz).

Causes of Dry Weather Overflows (DWO)

9. The causes of DWO are also well understood; and in Gisborne occur predominantly as a result of blockages in the network, mostly associated with a third party putting a foreign object in the wastewater system or fat build-up or a break in the network. While Council is proactive in preventing DWOs as far as practicable, they cannot be eliminated entirely.
10. Examples of some of the items associated with blockages in the network are shown in Figure 10 of the Application **[Refer to Figure 10]**.
11. DWO at pump stations are rare, because significant levels of redundancy are already built into the onsite infrastructure. The last mechanical failure that lead to a DWO was in 2015 from Steele Road pump station, and further improvements were undertaken as a result.
12. Council has a comprehensive multi-faceted approach to managing DWO which includes regular and proactive maintenance and inspection of the wastewater network, contingency measures for any foreseeable breakdowns/equipment failure; and comprehensive response, monitoring and notification protocols. These matters are set out in detail in my EIC. Council has adopted all practical and best practice methods to manage the potential risks of DWOs.
13. In addition, Council has a comprehensive public education campaign to address third party behaviour which impacts on the network. This includes a 5

part mini-series on various aspects (relating to DWO and WWO), videos, posters, flyers, billboards, social media messaging, mailbox drops, radio interviews and Gisborne Herald advertisements. This aspect is necessarily ongoing.

Overflow Management Responsibility and Overflow Response Process

14. I have set out in detail in Section 3 of my EIC the overflow management process, including Council's asset management approach and its relationship with a dedicated Tier 1 contractor (currently Fulton Hogan). As outlined in the Application and my EIC, the maintenance strategy is both preventative (proactive) and reactive. Council's contract outlines the required levels of service including response times, material standards, workmanship, and health and safety requirements.
15. I have also explained in detail in Section 3 a description of Council's operating procedure and opening protocols. It is important to note that, unlike some other councils, WWO discharges require manual intervention by Council to known discharge locations. As such, they are subject to comprehensive management and responses, including opening protocols, monitoring and notification protocols. The WWO protocols have recently been updated and I now table this document. **[Table the WWO Protocol]**.
16. As noted above, DWOs typically occur as a result of unexpected problems in the network, mostly associated with third party behaviour. Council's protocols for responding to DWOs are set out in the Wastewater Procedure for Dry Weather Discharges and Overflows. This document has recently been created as a stand-alone document to clarify the procedure, including response, notification requirements and monitoring/sampling and reporting requirements and contractor training; and I now table this document. **[Table the DWO Protocol]**.

Network Performance

17. The frequency of WWO is set out in the Application and my EIC. It is important to note that overflow frequency and performance is not directly comparable from year to year as it is rainfall event related – so WWO will occur more often in years with a larger number of heavy rainfall events and less often in years with fewer heavy rainfall events.

18. Council has undertaken an ongoing programme of improvement works, which has largely focused on Council owned assets (80%) and has substantially improved both networks in accordance with best practice. These matters have been set out in detail in my EIC.
19. To provide a national context for the performance of GDC's network, it has been 'benchmarked' against reported performance from other councils for the 2018/19 financial year, as reported in the Water New Zealand Performance Review 2018/19. Although some caution should be exercised in drawing comparisons as overflow information is collected and reported differently by councils (particularly for WWO); the benchmarking data indicates that Council's WWO and DWO per 1000 connections is at the low (better) range of participant council performance – both in respect of similarly sized councils and across all councils. This indicates that the Council's wastewater system and associated management is comparable to national practice.
20. As set out in my evidence, and in the evidence of Mr Kanz, Council's focus through the DrainWise programme is now on the private property component of the network. Mr Kanz's evidence details the further processes that will be undertaken by Council to implement the next stages of the DrainWise programme.
21. The DrainWise programme and other planned network improvements will work to reduce the frequency, duration and volume of overflow events over time. However, this is a substantial programme of improvement, which takes time to implement and evaluate and accordingly a twenty year term is essential. As identified by the Reporting Officer, a blunt approach of a short term of consent is likely to be counterproductive in facilitating positive environmental outcomes of the medium to long term, as it will give Council little certainty to commit significant financial resources when it will be faced with a re consenting requirement in the short term.
22. Comprehensive consent conditions are proposed by the Applicant, as outlined in the evidence of Mr Mayhew; which will ensure that the network remains effective and efficient and will address the effects of overflows.

Wastewater Procedure for Wet Weather Discharges and Overflows

Notification, Response, Monitoring and Reporting Procedures

Overview

This document details Council protocols and processes in respect of responding to wet weather overflows. Included in this document are the notification and response, monitoring and reporting procedures utilised by Council staff before, during and following wet weather overflow events. Note however, this document does not address Council's processes for determining if and when an overflow valve should be opened and subsequently closed.

As Council aims to continually improve its processes and protocols, all of the attached documents have recently been reviewed and updated. Further reviews will also be undertaken as necessary.

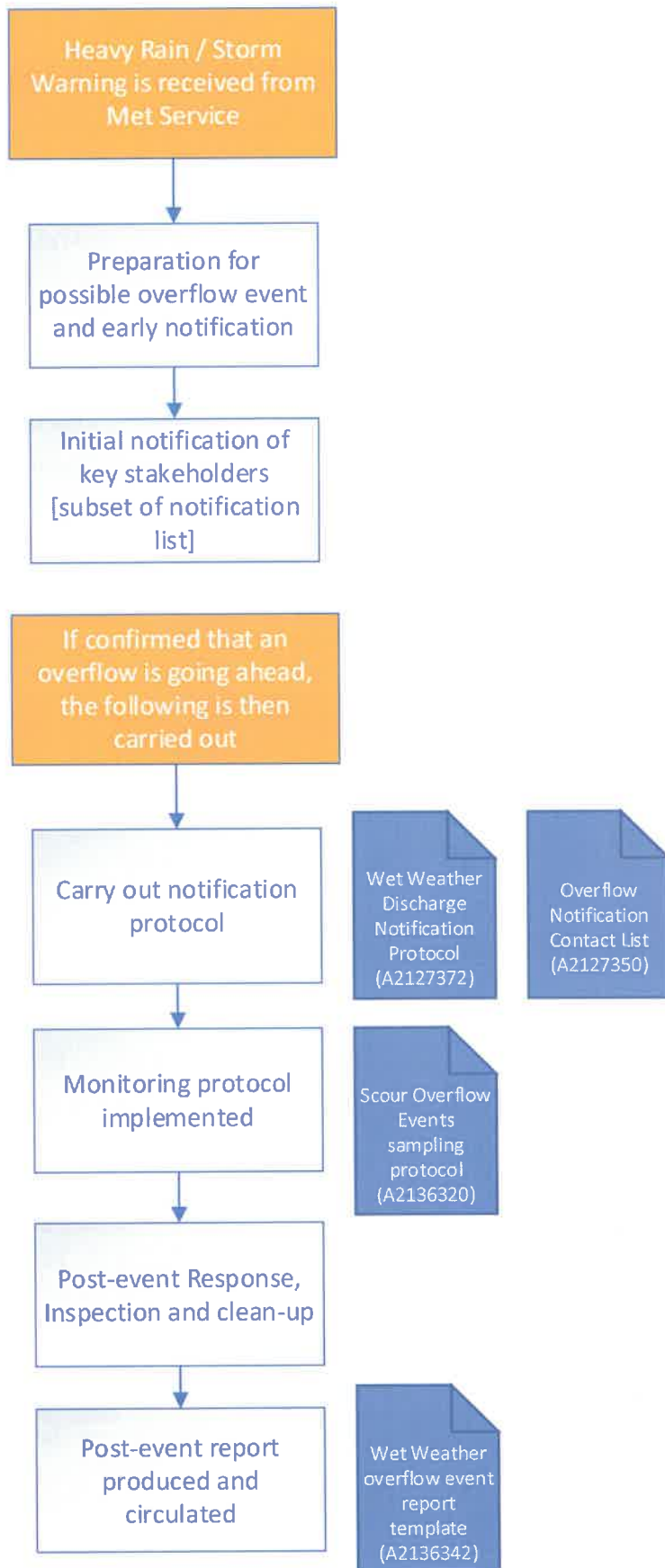
Wet weather overflows occur as a result of heavy rain resulting in stormwater entering the wastewater system either directly from downpipes or through cross connections and overtopping of gully traps (inflow), or indirectly through leaking joints and cracked pipes (infiltration).

To prevent wastewater overflowing from manholes or onto private property when the pipes are full, Council opens the overflow valves at a specified hierarchy of locations depending on the scale of the event.

The potential adverse effects of these overflows are:

- Pollution of waterways (streams, rivers and harbour)
- Public health issues
- A loss of sanitary services for customers
- Cultural and social effects

Process Overview



Notification

The Wet Weather Discharge Notification Protocol (**Appendix 1**) outlines Council's notification and response procedure for wet weather overflow events. This protocol includes both internal and external notification and response.

Pre-event warning

It is important to respond to and notify all parties in accordance with the notification protocol. The first step in this process is to provide a 'heads-up' to relevant Council staff and external contacts if a heavy rain warning has been issued and a discharge is likely to occur.

Council continuously monitors the wastewater network, pump stations and MetService weather warnings to prepare for and reduce the risk of wastewater discharges. In most cases, this continuous monitoring of the network and weather provides Council staff with enough time to begin the notification procedure before an overflow event occurs.

Overflow Event Notification

As the scour valves have to be opened manually to allow for wastewater discharges, a decision needs to be made on whether a discharge will go ahead at a point in time. Once this decision has been made, Council's Communications team and relevant internal and external contacts are notified. Contacts included in the EH sewer overflow email distribution list has been included in this report as **Appendix 2**.

The time and location of the opening of the scour valves is confirmed via email to relevant Council staff, those on the overflow notification distribution list, website and social media posts are published by the communications team. External stakeholder notification that the overflow has occurred then commences, and signage is placed at designated locations.

Updates are provided via email, social media and Council's website throughout the duration of the overflow event, and relevant Council staff and health officials are notified of when the discharge has ended. Public and external stakeholder notification that the overflow event has ended then commences via the communications team and water utilities. Signage at designated sites is removed after a period of 5 days following the closure of overflow valves.

Monitoring and Post-event Response

The Scour Overflow Events Sampling Protocol (**Appendix 3**) outlines the monitoring and advisory processes implemented following a wet weather overflow event.

The core components of this protocol are:

- Sampling results inform when warning signage can be brought back in.
- Council must sample on day 5 after a scour valve closure to confirm if water quality has returned to normal. Signs will remain in place until monitoring returns to normal.
- Sampling is for swimming health parameters (bacteria) and water quality parameters.

As well as producing the post overflow event report within two weeks of the end of the overflow event, Council must also undertake a post overflow inspection.

Post-overflow inspection and clean-up procedure is as follows:

1. Monitor public environments which could potentially be affected by waste or contamination following an overflow event i.e. beaches and river mouths near scour valves. Undertake water quality monitoring as specified in the monitoring protocol.
2. Undertake surveillance for the purpose of locating any wastewater solids that may have been in the discharge such as fat, including inspection of beaches.
3. If contaminants are on land, ensure members of the public do not access affected areas until site is cleaned up, disinfected and safe for access. Disinfect - Use Geocil 150 diluted 1:4 and apply at a rate of 100ml per m². Diluted Geocil ready for use is stored at Fulton Hogan in the IBC in the reticulation garage.
4. If solid wastewater materials (e.g. wet wipes, fatbergs, and other items entrained in a wastewater discharge) are found, ensure members of the public do not access affected areas until site is cleaned up, any required disinfection is carried out, and the site is safe for access.
5. Remove all wastewater solids - rake up as much solid waste as possible, pick up any remainder by hand if possible. Securely bag and dispose of contaminated material properly.
6. Ensure all appropriate PPE is worn by Council staff and its contractors.
7. While unlikely in a wet weather event, if wastewater spills are contained in a specific location, then remove all possible effluent – e.g. through the use of sucker trucks.
8. Inspect the affected areas and confirm clean-up is complete.

Reporting

The final step in the response protocol is for water utilities to provide a wastewater overflow report within two weeks of the end of the overflow event to relevant Council staff, health officials and affected Iwi and Hapū. The post overflow event report template has been included as **Appendix 4**.

Appendices

Appendix 1:	A2127372	Wet Weather Discharge Notification Protocol
Appendix 2:	A2127350	Overflow Notification Contact List
Appendix 3:	A2136320	Scour Overflow Events Sampling Protocol Updated
Appendix 4:	A2136342	Wet Weather Overflow Event Report Template and Instructions

Wastewater discharge notification

Appendix 1

Wet weather discharge

Date: 27 May 2021

Trigger: If discharge going ahead Utilities to phone Pollution on-call number 027 652 7919



FULL PROCESS				
	RESPONSIBLE	COMMUNICATE WHAT	HOW	TO
1	Utilities	Provides heads up if heavy rain warning is issued from MetService / preparations to reduce risk of discharges / indicate time may have to discharge.	EMAIL	<u>Internal</u> CME, CE + Senior Managers Environmental Health Comms <u>External</u> EH Distribution list
2	Utilities	Decide on discharge going ahead, provide information required for email notification.	PHONE CALL TEXT	Pollution On-call 027 6527919
3	Utilities	Discharge is going ahead. Phone Comms (Karen Hadfield)	PHONE	Comms (Fraser – 027 288 9831) Please call.
4	Utilities	Notification that discharge is going ahead	EMAIL PHONE TEXT	<u>Internal</u> CME, CE, Directors, and Community Lifelines Infrastructure and Operations Managers <u>External</u> <u>External</u> <u>External</u> EH Distribution list IF CONFIRMED THEY WILL BE AFFECTED i.e. Discharge into Owen Drain - Private Property Owners email list and schools as required

5	Utilities	Confirmation of scours opening time/location. Phone Comms (Fraser Hopkins)	PHONE CALL TEXT	<i>Comms (Fraser 027 288 9831)</i>
6	Utilities	Confirmation of scours opening time/location.	PHONE CALL TEXT EMAIL	<i>CE, Community Lifelines Director, and Community Lifelines Infrastructure and Operations Managers Hauora Tairāwhiti Medical Officer of Health</i>
7	Comms	Confirm messages and commence activity required for social media platforms Messages include scours opening time/location Act as point of contact for enquiries	WEB FACEBOOK NAUMAI	<i>General public</i>
8	Utilities	Commence external stakeholder notification process that overflows have occurred Messages include scours opening time/location	EMAIL	<i>EH Distribution list (update list to include those that indicate would like to be notified earlier) IF CONFIRMED THEY WILL BE AFFECTED i.e. Discharge into Owen Drain - Private Property Owners email list and schools as required</i>
9	Utilities	Place signage at designated sites	SIGNS	<i>General public</i>
10	Utilities	Provide water quality testing results and media information if required Update provided if situation changes	EMAIL	<i>Senior Managers Regulatory Services email Comms</i>
11	Comms	Distributes updates, media info, education messages	WEB FACEBOOK NAUMAI	<i>Public Staff</i>

12	Utilities	Notify end of discharge	PHONE	<i>Pollution on-call and comms</i>
13	Utilities	Confirmation of scours closing time/location.	PHONE CALL TEXT EMAIL	<i>CE, Community Lifelines Director, and Community Lifelines Infrastructure and Operations Managers Hauora Tairāwhiti Medical Officer of Health</i>
14	Comms	Commence public notification process that overflows have ended Confirmation of scours closing time/location. Distributes updates, media info, education messages	WEB FACEBOOK NAUMAI	<i>General public</i>
15	Utilities	Commence external stakeholder notification process that overflows have ended Confirmation of scours closing time/location	EMAIL	<i>EH Distribution list (update list to include those that indicate would like to be notified earlier) IF THEY HAVE BEEN AFFECTED/ WERE NOTIFIED EARLIER - Private Property Owners email list and schools</i>
16	Utilities	Remove signage at designated sites Remove signage after five (5) days of closing of scours	SIGNS	<i>General public</i>
17	Utilities	Provide wastewater overflow report within two weeks of end of overflow event	EMAIL	<u>Internal</u> <i>Senior Managers Regulatory Services Comms CE, Community Lifelines Director, and Community Lifelines Infrastructure and Operations Managers</i> <u>External</u> <i>Hauora Tairāwhiti Medical Officer of Health</i>

				<i>Affected Iwi and Hapū – include individual Marae nominated person(s) KIWA Group</i>
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RELATED LINKS / INFO

[EH Sewer Overflow email list](#) includes:

- Hauora Tairāwhiti Medical officer health
- On call GDC health protection officer
- External water groups: waka, rowing, surf, environment, health
- Iwi and Hapū
- MPI (who will send out to nominated Iwi and Hapū customary fishing permits permitting officers)
- Mayor and Councillors
- Senior GDC management team (Central Organising Rōpu)
- DrainWise Programme Manager
- Community Lifelines Infrastructure Manager
- Community Lifelines Operations Manager
- Community Lifelines Storm and Waste water Team Leader
- Community Lifelines Wastewater Engineer
- Regulatory services – compliance team
- Environmental Monitoring & Hydrology team
- Comms, Customer Service
- Gisborne Herald, Local radio

Private property owners that could be directly affected:

- Only property owners directly affected to be contacted
- Overflow at Seymour Turenne
 - i. Seymour Road residents from number 12 to number 25 (if they would like to be notified.
 - ii. Te Wharau & Ilminster schools
- Overflows where they have the potential to affect a school or early childhood centre
 - i. Potentially affected schools – see attached contact list

Media contacts:

- Gisborne Herald: Andrew.Ashton@gisborneherald.co.nz
- MoreFM: Bevan Chapman bchapman@mediaworks.co.nz
- NZME: Treva Rice TrevaRice@radionetwork.co.nz
- TurangaFM: Walter Walsh wiz@turangafm.maori.nz
Fred Maynard fred@turangafm.maori.nz

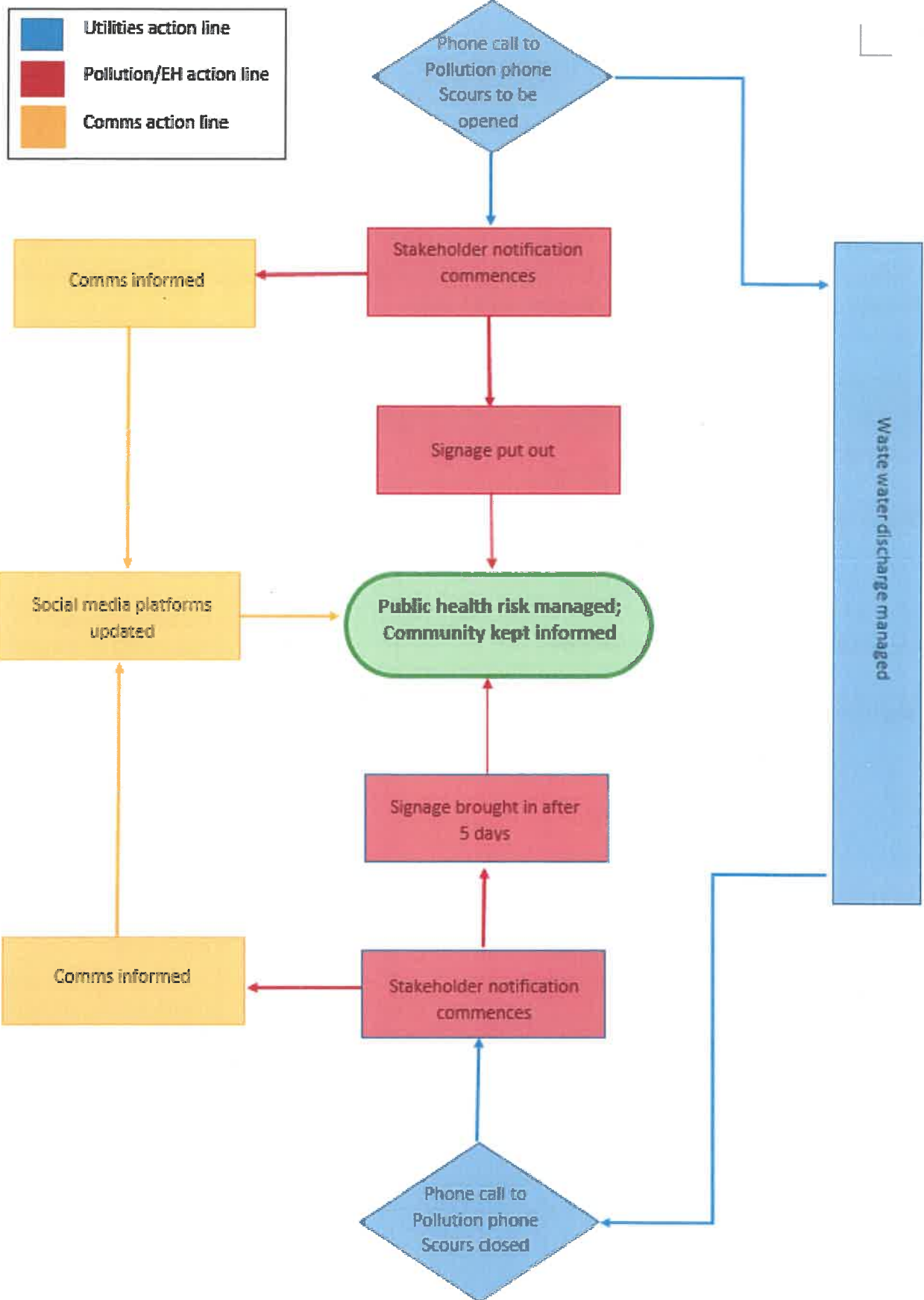
Council links:

- www.gdc.govt.nz
- www.facebook.com/GisborneDC

GDC overflow signage locations:

- Pipeline Carpark
- Midway Beach
- Beacon Street
- Roberts road
- Captain Morgans
- The Cut Carpark
- The Cut (captain cook)
- Watties Wharf
- Railway Bridge
- End of Grey Street
- Kaiti Beach Carpark
- Harbour boat ramp
- Esplanade
- ANZAC Park (waka ama)
- ANZAC Park (Rowing club)
- Riverside Road (opposite Russell Street)
- Kayak club (De Costa Park)
- Marina Carpark (small boat ramp)
- Marina Carpark (main boat ramp)
- Owen stream footbridge (Seymour Road)
- Mangapapa stream footbridge (Oak street)

NOTE: Council puts up signage only at those locations which have the potential to be affected by an overflow event. Signs will be put up in other locations in the unlikely event that overflows have the potential to affect other areas.



OBJECTIVES

OBJECTIVE
Communicate the discharge notification to internal stakeholders, water users, and Tangata Whenua as soon as possible, and the remainder of external stakeholders as early as practical. External stakeholders straight after internal notification, as soon as possible.
Water users are aware of any health risk in waterways - distribute messages through all channels available, monitoring data made available if requested.
Community is aware of the causes and steps to solve the issue through ongoing education, shown through opinions monitored in media and social media.

TEAM	CONTACT	PHONE	NOTES
Contractor	Adrian Van Zyl		<i>Supply information and onsite communications</i>
Water Utilities	Utilities Team Leader Neville West Chris Hopman		<i>Supply information and communicate internally</i>
Monitoring	Peter Hancock		<i>Conduct agreed monitoring processes</i>
Regulatory Services	Pollution Hotline / On call EHO Kate Sykes Gary McKenzie		<i>Distribute messages to internal and external stakeholders and put out signage</i>
Comms	Fraser Hopkins Karen Hadfield Anita Reedy Holthausen Comms on call phone		<i>Contact Fraser in first instance or per order listed here to update social media platforms and monitor feedback externally</i>
CE Senior Managers	Nedine Thatcher Swann Paul Murphy David Wilson Helen Montgomery Keita Kohere		<i>if further approval/ spokesperson needed</i>

MESSAGES

EMAIL 1 SUBJECT: WASTEWATER NOTIFICATION: VALVES OPENED



The city wastewater system has been flooded with large amounts of rain water draining from residential properties.

To prevent sewage from overflowing back into homes and onto roads, causing a significant potential health risk on properties in the city, Council has opened the emergency sewer valves at <<Insert scour sites>> into the <<Insert rivers and streams affected>> at approximately <<time>>.

Contact with the waterways is likely to pose a risk to health.

We are notifying the Hauora Tairāwhiti Medical Officer of Health, water user and sports groups.

Temporary warning signs will be installed at swimming and recreation sites.

We advise no swimming, fishing or gathering shellfish in rivers and beaches until at least 5 days after the valves are closed, and warning signs are removed.

We will notify you when the discharge has stopped. Any updates will also be posted on our [website](#) and [Facebook](#) page.

Information on how rain water causes discharges is on our [website](#). Further information on wastewater overflows can be found here [Gisborne District Council » Why discharges happen - what's the problem \(gdc.govt.nz\)](#).

If you have any questions or concerns, please email comms@gdc.govt.nz or phone 0800 653 800. Please do not respond to this email.

EMAIL 2 Subject: Wastewater Notification: Valves closed



This is to confirm that the emergency sewer valves were closed at <<time>> and the discharge has stopped.

We advise no swimming, fishing or gathering shellfish in rivers and beaches until at least 5 days after the valves are closed, and warning signs are removed.

We don't make the call to discharge to rivers lightly, we do this to prevent sewage from overflowing back into people's homes and properties in the city, and onto roads, causing a significant health risk. Unfortunately this however results in health risks in the rivers, beaches and nearby coastal areas, which is why we advise against swimming, fishing or gathering shellfish in rivers and beaches over this time.

A large amount of stormwater is getting into the wastewater system from private properties. Our DrainWise team are inspecting properties and working with homeowners to fix stormwater and wastewater drainage to reduce the risk of discharges happening in the future.

Head to our website for more information on the [DrainWise project](#) or to get in touch with the team, email Drainwise@gdc.govt.nz

We're always trying to improve our communication when discharges occur, if you have any feedback, suggestions or questions please contact comms@gdc.govt.nz. Please do not respond to this email.

FAQs: for additional messaging

How do overflows affect the community and the environment?

Tangata Whenua and the broader community oppose wastewater overflows. For iwi and hapū it is unacceptable for human wastewater to be released into our waters. Cultural practices can be affected for long periods, and wastewater overflows reduce the mauri of the people, and affects wairua.

Overflows contain harmful bacteria that can remain for up to three days after an event. Viruses and some substances can persist for longer than three days. These present a public health risk to water users.

The community opposes overflows because it affects activities such as swimming, surfing, waka ama and kayaking, shellfish harvesting, mahinga kai and other Māori customary practices.

Overflows into small water bodies have the potential to cause negative ecological effects. The effects depend on how much is discharged and for how long.

Why does Council discharge to rivers?

We don't make the call to discharge to rivers lightly, we do this to prevent sewage from overflowing back into people's homes and properties causing a significant health risk.

It all boils down to huge amounts of stormwater getting into our wastewater system.

Our system is built to take wastewater from our toilets, sinks, basins, showers and baths to the wastewater treatment plant.

It's not designed to handle large amounts of rain water that should be going into stormwater drains instead.

It causes toilets to stop working and sewage ends up coming back out. It can pop a manhole and overflow onto the roads or back up through pipes and gully traps onto people's properties.

Because the system can't cope with the excessive amount of water, we have to release it into the rivers to stop the overflows in people's homes.

What does Council do to prevent a discharge during a rain event?

A heavy rain warning from the MetService is the trigger for us to prepare.

Before heavy rain events, our contractors complete pre-checks and jetting to ensure the system is working as it should.

They will constantly check hotspots, monitor levels at pump stations and manholes, and respond to requests for service to help the system cope with excessive volumes of water.

We will take measures like using waste trucks to shift the wastewater from an overloaded area to an area that is not yet affected, in an effort not to have to open the discharges.

Our strategy is always to prevent opening the emergency valves for as long as possible so we reduce the amount that gets discharged, and also the possibility the rain may stop, and the flows will drop off.

The decision to open the valves to rivers is left until the absolute last minute when there is no other option.

How does rain get in?

During heavy rain, a large portion of the water in the wastewater pipes is rain water which is getting into the system from private residential properties.

The largest cause is flooding on properties where water overflows over the top of gully traps or into broken gully traps.

Illegal downpipe connections draining rain water from the roof into gully traps or directly into their wastewater lateral pipe also contribute significant flows.

It also gets in through the ground into cracked lateral pipes.

In heavy rain, the amount of stormwater that drains from the average roof is equivalent to the wastewater flows from 40 households.

Just 4 houses with downpipes draining into their gully traps is enough to affect the wastewater system for 130 of their neighbours.

Just 2 houses with surface water draining into their gully traps is enough to affect the wastewater system for 130 of their neighbours.

Rainwater could be getting into the wastewater system from somewhere on your property and you may not know it and could be affecting other people in your neighbourhood.

What is Council doing to solve the problem?

Our DrainWise project has been set up specifically to reduce wastewater overflows in residential properties and discharges into rivers.

- **Helping homeowners:**

The project will focus on solutions for helping homeowners fix stormwater drainage on their property so we can reduce the risk of rainwater getting in.

We're continuing a programme of inspections in the worst affected catchments like Kaiti and Whataupoko. We'll use smoke testing to find where stormwater pipes are connected to the wastewater system or wastewater pipes are not sealed. We can also use a camera to check the condition of pipes under your property.

We still need to know where stormwater is getting in, so we know what our options are for helping homeowners fix it. We also want to make sure rain can drain from your house and off your section to the stormwater network.

You can help us by completing the following survey at www.gdc.govt.nz/drainwise or if you have questions or want to get in touch, please contact us at Drainwise@gdc.govt.nz.

- Council pipes

We're also completing renewals of Council pipes and backup systems and investing \$22m to renew our infrastructure as set out in the Long Term Plan.

We've spent \$8m in renewing infrastructure since 2012. This includes work to replace 100 year-old pipes, upgrading pump stations, sealing off cross connections between the wastewater and stormwater networks and installing emergency storage tanks like the two 45,000 litre tanks in Steele Road.

It isn't as simple as increasing the size of Council's main pipes. Increasing capacity would impact on our treatment plant infrastructure too, which shouldn't have to process what was clean rain water.

Why is it taking so long to fix?

The network has 440km of wastewater pipes - 50% of these belong to the property owners.

\$22m over ten years will be spent renewing Council's infrastructure but this only accounts for a small portion of the stormwater getting in. [we will need to continue to spend at least \$1.4m every year forever in order to keep replacing old pipes, it's not just in the current LTP].

There's about 14,750 properties across the city to inspect for drainage issues. It will take time to inspect them all. We have a 10 year programme to work our way around the city.

Most properties in the city have been inspected at some stage. Previously our focus was on getting downpipes out of the gully traps, but this was only part of the problem.

We've also found when inspecting these properties years later the downpipe is back in the gully trap so we'll require it to be plumbed permanently into the stormwater network.

We've found there are multiple routes for water to get into the wastewater system from private property. Inspections now also include investigating gully traps and drainage of stormwater that floods or ponds on people's properties.

Just 2 houses with surface water draining into their gully traps is enough to affect the wastewater system for 130 of their neighbours.

We also need the co-operation of property owners who are responsible for drainage on their property. Some of the problems can be quite costly to fix.

Using survey and inspection results helps us prioritise which areas to investigate first and potentially invest in, but our budgets also limit us to addressing small areas at a time.

What can you do?

Be DrainWise:

Check drains and pipes on your property.

You may need to:

- Redirect your downpipe away from the gully trap.
- Make sure your stormwater is drained into the Council stormwater network.
- Increase the height of your gully trap.
- Seal cracks in gully traps or wastewater pipes.

- For some larger problems you may need to install new lateral pipes and need to get a building permit. Talk to us before you start. We'll help you get the right approvals.
- Employ a qualified plumber or drainlayer.

If you have issues with surface water or your household plumbing when it rains – complete our survey at www.gdc.govt.nz/drainwise. We will be in touch to help.

Conserve water:

During and after a heavy rain event try to reduce household wastewater like limiting toilet flushes, running dishwashers, washing machines or draining bath tubs.

What's the difference?

- STORMWATER DRAINS AND PIPES
Manages rain water that runs off houses, land and roads. Rain water that drains from your property into roadside gutters flows through Council's stormwater network and out into rivers. It's important not to pollute stormwater or let it drain into the wastewater network.
- WASTEWATER (SEWER) PIPES
Takes the water from your household sinks, baths, toilets and laundries. This water drains into gully traps and through a lateral (an underground pipe that is a part of your property) into the Council main wastewater pipe. These pipes take the water to the Wastewater Treatment Plant to be treated.
- WHAT'S A GULLY TRAP?
It's a small open drain located outside your house near the kitchen or bathroom. Gully traps should also have a small grate and a raised surround to prevent water flooding in. Gully traps can be made of PVC (plastic), earthenware or cement. They are there to prevent wastewater flowing back into your house should a blockage occur between your gully trap and Council's sewermain in the road







Gisborne District Council Overflow Notification contact list

GDC Staff / Teams:
Communications Team
Councillors –DL
David Wilson (Director Lifelines)
Dr Graeme Card PMP
Elisa Saager
Environmental Monitoring
Environmental Science Team –DL
Ian Petty
Karen Hadfield
Kupu Lloyd
Maryanne Macleod
Mike Yurich
Olive Steven
Paul Murphy
Phil Nickerson
Regulatory Services –DL
Sally McKinnon
Sandy Gorringe
Tim Johnston
Tom Porter
Tracey Panton

Clubs / Organisations / Others:
Private Individual's names have been removed from this version
Central Organising Roopu –DL
Gisborne Board Riders
Gisborne Kayak Fishing Club
Gisborne Rowing Club
Health protection officer
Horouta Waka Hoe Club
Info Gisborne Herald

Mareikura Waka Ama Club
Midway Surf Lifesaving Club
Surf2surf
Surfing with Sarah
Waikanae Surf Lifesaving Club
Wainui Surf Club

Schools (to be notified as required):
Kaiti School
Wainui Beach School
Waikirikiri School
Ilminster Intermediate School
Te Wharau School
Turanga Arurau
EIT Tairāwhiti
Awapuni School
Gisborne Intermediate School
Matapuna Training Centre
Gisborne Central School
Gisborne Boys High School
Te Kura Kaupapa Māori O Horouta Wananga
Gisborne Girls High School
Mangapapa School
Te Wananga O Aotearoa
Cobham School
Elgin School
Te Hapara School
Riverdale School
Lytton High School
St Mary's School
Campion College
Sonrise Christian School
Makaraka School

Makauri School
Manutuke School
Patutahi School

Childcare Centres (to be notified as required):
House of Wonder Gisborne
Sticky Fingers Child Care and Education Centre
Central Childcare and Education Centre
The Point Early Learning Centre
Gisborne Hospital Childcare and Education Centre
Victoria Early Learning Centre
Manaaki Tamariki Childcare and Education
Mustard Seed Child Care and Learning Centre
YMCA Y Tamariki
Eastland Educare
Best Start Lytton
Te Whare Whai Hua Childcare Centre
Plunket Gisborne
Tairāwhiti Polytechnic Manaaki Tamariki Childcare
Gisborne Community Early Education Centre
Te Puna Reo O Pūhi Kaiti Early Childhood Centre
The Farmyard
Te Whakaruruhau Kohanga Reo
Te Kohanga Reo O Iti Noa

Scour Overflow Events Sampling Protocol

Log of Changes

Date of Change	Who Made the Change?	What was Changed?
09/05/-2016	Matt McGill-Brown	Document created.
25/05/2018	Joe Val Alipin	Added revised monitoring regime. Document reformatting.
09/08/2019	Peter Hancock	New program requirements. Have deleted old information (see old objective version of document for past context) relating to previous complex sampling regime. New regime much more simplified
20/08/2019	Peter Hancock	Review with Wolf. Minor amendments made and process agreed upon. Sent for review to Compliance and EH teams.
16/10/2019	Kathryn Sharman	Updated location info & photos.
18/10/2019	Peter Hancock	Clarify. First sample asap after opening. Other samples '5 days from valve closure' (not from opening). RC info included. Bacteria grades table added.
29/05/2020	4Sight Consulting Ltd	Introductory text amended.
25/11/2020	Peter Hancock	Changes resulting from Wolfgang Kanz e-mail dated 11/08/2020. No longer requirement to sample for all 5 days after valves closed. Now only day 5.

Monitoring Requirements

The purpose of this document is to confirm monitoring and associated public health warning signage following an overflow event.

Currently wet weather wastewater overflows are a permitted activity under Rule 6.2.3(1) of the Tairāwhiti Resource Management Plan until 1 July 2020, after which Council requires a resource consent for overflow discharges. The conditions of this permitted activity include:




- Regular monitoring of the impacts of the wastewater overflows on the water quality and environment of the receiving environment is undertaken and that the results of this monitoring are reported to the Consent Authority on an annual basis;
- Public notification is undertaken in accordance with a public notification protocol agreed in writing with the Consent Authority; and
- Signage must remain in place until faecal contamination testing indicates that recreational use and food gathering activities are within health guidelines.

The monitoring and advisory process below has been prepared to be in accordance with these requirements and will continue into Council’s wastewater overflow consent, once granted.

Core components are:

- Sampling results inform when warning signage can be brought back in.
- Council must sample on day 5 after a scour valve closure (not all 5 days as done previously).
- Sampling is for swimming health parameters (bacteria) and water quality parameters.

The objective for E.coli and Enterococci is to inform when signage can be brought back in (i.e. when results show a return to below safe swimming guidelines of below 280 for Enterococci and/or 550 for E.coli).

	Enterococci cfu/100ml	E.Coli cfu/100ml
	Acceptable <140	<260
	Caution 140-280	260-550
	Health risk >280	>550

The practical reality of sampling, testing and signage is that Council is unlikely to be able to get the signs back in before the 5 day threshold due to:

- The delay time it takes from sampling, to analysis, to results receipt.
- The delay time from results receipt to informing the relevant team to bring the signage back in (when they are working during daylight hours).

- Background bacteria levels in the city streams are generally high after rain events so it is difficult to separate the wastewater bacteria signal from the background urban/farm runoff bacteria signal in the catchment.
- There are two swimming bacteria parameters being measured (E.coli and Enterococci) at four sites so if any one of the eight test results are over the bathing threshold then signage must remain out. This is a high threshold to attain.
- Contaminant dispersion modeling¹ and an assessment of previous monitoring² shows that effects are dispersed within 2 to 3 days. However, a period of 5 days provides a level of conservatism.

As such, despite consent wording, Environmental Health (EH) standard practice is to leave the signage out for 5 days after the scour valves are closed.

- Swimming health indicator parameters are E.coli and Enterococci.
- Water quality key parameters are Total Phosphorus and Ammonical Nitrogen³.

Monitoring Frequency – Wastewater Overflows

Following the scour valves being opened, samples are to be taken on day 5 after scour valve closure, with dates and time of the sampling recorded. Testing and sample logistics are undertaken as per Environmental Monitoring usual water quality Standard Operating Procedure's (SOP).

Monitoring Parameters

Microbiological:

- E coli, enterococci from the bacto pottle.

Field:

- Ammonical N, Total Phosphorus from the green 100ml ammonia bottle.

Field multimeter measurements:

- Conductivity and salinity are to be measured in the field, but will also collect other meter parameters just because they are available and easy to do while there. Other parameters include DO%, DOmg/L, pH and water temp.

Trigger for Sampling

When advised of a scour overflow by the Environmental Health team OR the Wastewater Utilities Team. As per agreed Communication Plan protocol (Wastewater discharge notification Doc Ref: A766567).

¹ MetOcean, 2020. Scour Event Modelling: Poverty Bay

² 4Sight Consulting, 2020. Overflow Water Quality Assessment – River Monitoring Report

³ Coast and Catchment, 2020. Ecological effects of wastewater overflows

Equipment List

- Sampling pole;
- Sampling bottles including spares (bacto and green ammonia bottle);
- Grabber reel and sampling rope;
- Gloves.

Method

1. Pre-organise a round of bottles so they are ready to go for an overflow event. Put somewhere in the annex/office where staff will have ready access to them. This bin is to contain five days worth of bottles. Each day/site will have bottle splits with one Chain Of Custody (COC) and bottle for bacteria and a separate COC/bottle for nutrients. This is so that we can get quicker turnaround bacto results from the lab (as nutrient results can take up to 10 working days).
2. Grab ziplock bag with appropriate bottles out of Scours chillybin. Find a chillybin to use and put some fresh slicker pads in it.
3. Go out in the field and conduct sampling. Ensure acid filled bottle is not overfilled. Leave a headspace in the bacto pottle.
4. Upon return, if during the week, Environmental Monitoring (EM) team will sample and deliver to lab. If during the weekend, on-call staff (Drainwise?) team to take the sample and send to the lab. Protocols for sending to be advised by EM team. Weekend samples (and anything delivered after 4pm on Friday) to the lab require air freight and sample dropoff at the airport.
5. EM team will ensure results are processed in a timely manner and made available to the website.

Reporting

Bacto results are auto-archived into GDC Hilltop database and then automated up to Land Air Water Aotearoa (LAWA) as soon as they are made available from the laboratory (usually 30 hours after samples are received by the laboratory). Nutrient results data take longer to analyse and receive (results are made available to GDC after 10 working days). GDC then process and store this data into GDC's Hilltop database for future retrospective analysis and assessment as required.

Sampling Sites

Sites have been decided upon based on wastewater contaminant plume modelling (ie, the scour overflow plume will always be somewhere within these sites despite the tide).

Turanganui River at Gladstone Rd Bridge

Water Type	Brackish		
Requirements	Sampling Rope	GPS Coordinates	2037580E 5707995N

Road Address: Gladstone Rd

Site Notes:

Park just before the bridge across esplanade and sample from the bridge.

May sample from the river bank as shown below if safe to do so.



Turanganui River at The Cut

Water Type	Saline		
Requirements	Sampling Pole Waders/Gumboots	GPS Coordinates	2036914E 5707555N

Road Address: Awapuni Road

Site Notes:

Park in first car park at the cut. Walk down and sample off concrete ledge.



Waimata River at ANZAC Park

Water Type	Brackish		
Requirements	Sampling Pole	GPS Coordinates	2038028E 5708770N

Road Address: ANZAC Park

Site Notes:

Turn left off Rutene Rd down Harris St just after the Four Square. Follow Harris St until it joins Score Road, enter the park past the toilets and park in Gisborne Rowing Club car park. Sample in front of first set of trees.



Taruheru River at Peel St Bridge

Water Type	Fresh		
Requirements	Sampling Rope	GPS Coordinates	2037523E 5708357N

Road Address: Peel St

Site Notes:

Park in the carpark between the bridge and GDC building. Walk to the bridge and sample.



Wet Weather Overflow Event Report

Following a wet weather overflow event, a report must be provided by GDC staff no later than two weeks after the end of the overflow event. Instructions on what this report must contain, where to save it, and who to send it to have been outlined below.

1. The report must be written using the template on page 2, and should provide detail on the following:
 - List of overflow locations opened during the event
 - Number of locations opened during the event
 - Duration of the event
 - Return period rainfall assessment
 - Volume of the event
 - Total volume of overflow per year

2. Reports are to be saved in the Objective folder below:



3. Reports should be saved using the following naming convention "Wet Weather Wastewater Overflow Event Report dd/mm/yy"
4. A copy of the completed report should be sent via email to the following:

Internal

Senior Managers
Regulatory Services
Comms

CE, Community Lifelines Director, and Community Lifelines Infrastructure and Operations Managers

External

Hauora Tairāwhiti Medical Officer of Health

Affected Iwi and Hapū – include individual Marae nominated person(s)

KIWA Group

5. Reports should include the Wastewater Overflow Valve Operation Report provided by GDCs Contractor (Fulton Hogan) as an attachment when sent out to the people/groups above. The Contractors report should also be saved in the same objective folder as the report once received via email.

Report Template:

Gisborne District Council Wet Weather Overflow Event Report	
Date: xxx	Report Number: xxx
Date/Time of beginning of overflow event: xxx	Date/Time of end of overflow event: xxx
Duration of Overflow Event: xxx	
Overflow locations opened during Event: 1. 2.	
Date/Time Opened: 1. 2.	
Total Number of Locations opened: xxx	
Return period rainfall assessment: <i>Refer to the latest version of the Wastewater discharge volumes and river monitoring spreadsheet (A1744025) for detail on the return rainfall</i>	
Volume of the event: xxx	
Total volume of overflows occurred for year to date: xxx	
Comments/Actions taken:	

Wastewater Procedure for Dry Weather Discharges and Overflows External Notification and Reporting Procedures V1.0

Version History

Version	Notes	Date
V0	Original version agreed with Environmental Health and the Water Conservators	May 2014
V1.0	Update/refinements as part of WW overflow consent	May 2021

Response Procedures for Dry Weather Overflows from the Network

The most likely scenario of the first warning (in and out of hours) of a dry weather overflow is that it is called in by a member of the public and sent through to Fulton Hogan as a Request for Service.

1. Call for help

If the RfS indicates there has been a discharge the Fulton Hogan on call person is to immediately go to site and immediately call the Fulton Hogan suction truck to meet on site.

If you are not the Fulton Hogan supervisor, call the (duty) Fulton Hogan Supervisor to meet you out on site. If you are not the Fulton Hogan Reticulation Services Manager call the Fulton Hogan Reticulation Services Manager to meet you out on site as well.

If the discharge seems to relate to a pump station call the pump station attendant to meet you out on site.

Make sure someone is bringing the trailer of equipment and make sure you have the stormwater plans.

General principle: Always call for more help than you think you will need and then pull back if necessary. There should be enough people to carry out Steps 4- 6 concurrently.

2. Go to site

If you are not there already get to site as soon as possible and assess the size of the spill. Take action to contain and recover.

3. Follow the External Notification and Reporting Procedures

- Notify the Wastewater Team Leader (if it's not the Wastewater Team Leader)
- Lead the response and ensuring the relevant procedures are instigated until the Wastewater Team Leader can take over.
- Notify and activate Fulton Hogan's response.
- Liaise with Environmental Health and Water Conservators as appropriate, including ensuring they meet the relevant representatives on site.
- Arrange sampling and testing of the waterway (see above).
- Inform Council Customer Services and other stakeholders as appropriate to the nature, scale and location of the event. As above, the wet weather notification protocol can be used as a guide, but implemented to the extent appropriate.

4. Make the site safe

The protection of public health and safety is the primary consideration in any wastewater overflow or discharge.

Public access shall be prevented to the spill area. This needs to be extended appropriately as the extent of the overflow is determined.

5. Stop the spread

If the discharge is on land only:

- Use spill containment dams from the suction truck to contain the spill area.
- Use plastic sheeting and soil to block storm water connections and road grates.
- Use earthen dams to block the road gutters



If the discharge has reached the piped stormwater system:

- Use schematics to find outlet of the stormwater system
- Proceed with haste to the outlet
- If the discharge has not reached the outlet and it is to a drain or stream use a plug or sand bags to block the outlet
- If the discharge has not reached the outlet and it is to a river seek instruction from the GDC person leading the response.

If the discharge has passed the outlet of the piped stormwater system:

- If it is to a drain or stream assess how far the wastewater has travelled and use sand bags to form a bund at that point.
- If it is to a river seek instruction from the GDC person leading the response.
- Implement monitoring as above

6. Stop the source

Jet the pipe to remove the blockage, if possible close a valve or turn a pump on. As the situation requires.

7. Remove the contaminated material and clean up the area

For contaminants on land follow the procedure below.

Suck out affected manholes and stormwater road sumps. Don't pour disinfectant down them, instead wash with potable water from the jet truck and recover wash water.

For clean-up of a drain or stream seek instruction from the GDC person leading the response.

Inspect the area and ensure a good job has been done

8. Do the paperwork

Fill out PF-13 and PF-14 to record a dry weather overflow. Plus PF-10 for a mains blockage.

Any wastewater discharge must be immediately notified by the person who observes it and/or the first Fulton Hogan responder to the relevant person as per the escalation list below.

Person to Notify (this applies to both in and out of hours)

If the first person on the list cannot be reached immediately then ring the next person and so on down the list.

	Position	Current Position Holder	Current Phone Number
1	Wastewater Team Leader		
2	Wastewater Operations Engineer		
3	4 Waters Operations Manager		
4	Water Team Leader		
5	Wastewater Treatment and Compliance Engineer		
6	Director Lifelines		

Let whoever you are notifying know the following:

- The location of the discharge and whether the discharge is from a pipe, manhole, or pump station.
- Whether it is from the domestic or separated industrial wastewater system.
- Whether the discharge is overland and/or has reached the stormwater network or a waterway.

The person notified needs to immediately call the Pollution Response hotline (0276527919) and inform them of the above information. They will then inform Environmental Health, Water Conservators, any other relevant council departments and complete the public notification process.

Public notification of dry weather overflows that reach waterways should be guided by the wet weather discharge notification protocol. However, in most circumstances dry weather overflows will have a substantially smaller area of effect and hence public notification should reflect this. Parties who may be directly affected by an overflow should be notified directly.

The person notified is then responsible for:

- Notifying the Wastewater Team Leader (if it's not the Wastewater Team Leader)
- Leading the response and ensuring the relevant procedures are instigated until the Wastewater Team Leader can take over.
- Notifying and activating Fulton Hogan's response.
- Liaising with Environmental Health and Water Conservators as appropriate, including ensuring they meet the relevant representatives on site.
- Arranging sampling and testing of the waterway.
 - Where possible, sampling should occur upstream and downstream including areas that maybe affected by the overflow and accessed by the public
 - Sampling should be for the following parameters
 - E.coli and Enterococci
 - ammoniacal nitrogen
 - dissolved oxygen
 - pH and temperature
 - BOD and COD
 - An inspection of the river/stream for any dead fish
 - Sampling should take place for at least 2 days following an overflow, or longer if downstream water quality is impacted

- Should a substantial and prolonged dry weather overflow occur to a waterway, or there are dead fish observed, an event specific monitoring assessment should be prepared. This may include other water quality parameters and ecological indicators depending on the scale and nature of the event.
- Informing Council Customer Services and other stakeholders as appropriate to the nature, scale and location of the event.

The person responsible shall stay on site to lead the response until the clean-up is underway or Pollution Control/Environmental Health/Water Conservators (as appropriate) have attended – whichever is the longer duration. They shall not pull off site before this point unless another suitable person has arrived on site and been thoroughly briefed to take over leading the response.

Useful Fulton Hogan Numbers

Position	Current Position Holder	Current Phone Number
Reticulation Services Wastewater/Stormwater		
Reticulation Supervisor Water		
Sucker truck operator		
Pump station attendant		
Engineering Supervisor		
Divisional Utilities Manager		
Fulton Hogan Area Manager		

Sucker Truck Backups

(Note that the capacity of the Fulton Hogan truck is 5000L)

Company	Current Contact(s)	Contact #	Truck Capacity
Terry Taylor Drainage Ltd			
Bay Waste Services			
Waynes Waste			

Training

Annual Overflow training workshops to go through the Wastewater Procedure and quarterly checks of vehicles that have containment equipment on-board are included in the response.

Procedure for clean-up and disinfection of contaminants on land

1. Ensure members of the public do not access affected areas until site is cleaned up, disinfected and safe for access.
2. Ensure all appropriate PPE is worn.
3. Remove all possible effluent - use the sucker truck to vacuum up larger spills.
4. Remove all possible sludge - rake up as much solid waste as possible, pick up any remainder by hand if possible. Securely bag and dispose of contaminated material properly.
5. Disinfect - Use Geocil 150 diluted 1:4 and apply at a rate of 100ml per m2. Diluted Geocil ready for use is stored at Fulton Hogan in the IBC in the reticulation garage.

NAME OF THE WORK ITEM: Wastewater Blockages,

Scope:

- Unblocking wastewater pipelines, interceptors, mains, laterals and manholes
- Containment and removal of any associated sewerage overflow as a result of a blockage (Dry Weather Overflow)
- Cleaning up and disinfection of overflows

Response Times:

- **Unplanned jetting to remove blockage and respond to an overflow:-**
 - Emergency response sewage discharge to land, stormwater system, natural waterway – 30 min response to contain extent of spillage, 1 hour for support staff to be onsite, 8 hour completion
 - Emergency response to blockage with no overflow – 1 hour response, 8 hour completion. Aim to prevent overflow
 - Overflows shall be reported to the Engineer within 1 hour so that the reporting requirements to the Environmental Health section can be met.

Payment

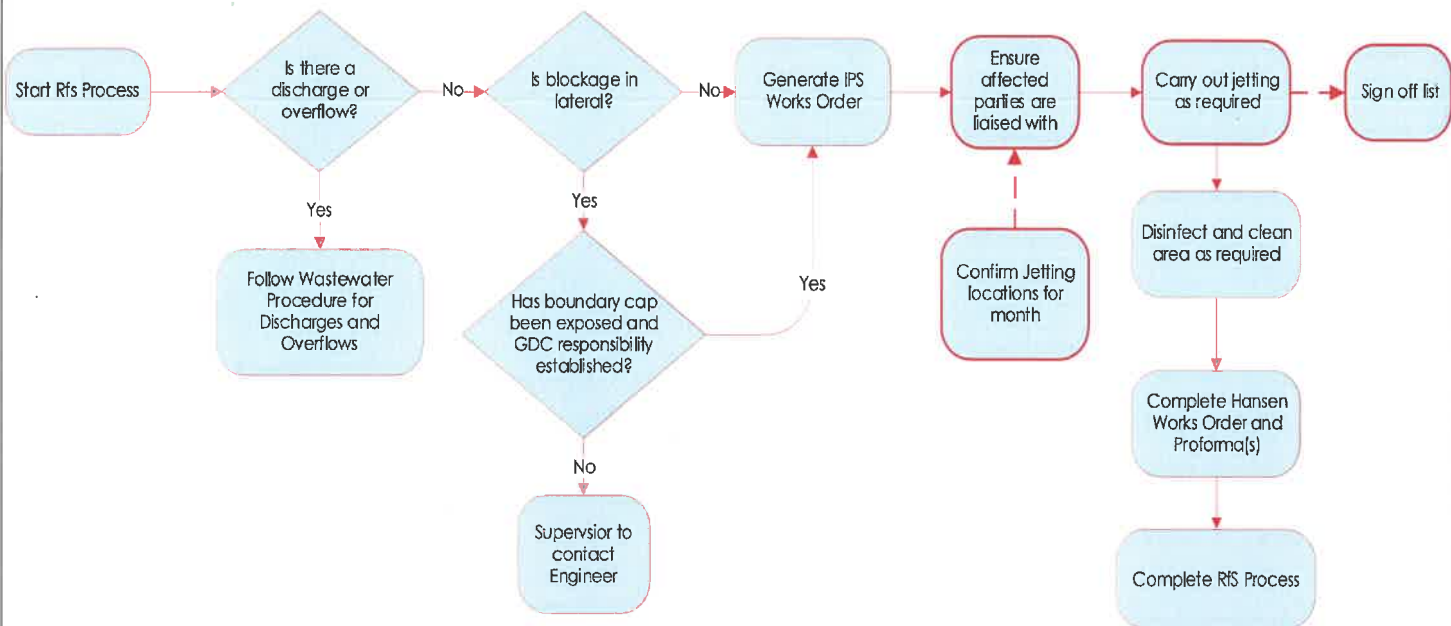
Blockage:

- S2.4.1 Clear Blockage – Local Sewer
- S2.5.1 Clear Blockage – Lateral
- S2.2.1 Service request for inspection

Emergency Response - Overflow

- S2.7.1 Respond to Dry weather overflow
- S2.7.2 Clean up, disinfect sewer lateral
- S2.7.3 Clean up, disinfect from manhole

Methodology:



Issues & Resolutions:

EW10/02 PF-26 DRY WEATHER OVERFLOWS FROM THE NETWORK

WORK ORDER NO:

TOWNSHIP:

SERVICE REQUEST ID:

ADDRESS:

LOCATION & DESCRIPTION OF OVERFLOW

.....

.....

PHOTO or SKETCH OF MAP (if required)

TYPE OF OVERFLOW

Gully Trap/Inspection eye Manhole Broken Pipe Bypass Pump Station Overflow

Number of points of discharge:

Did the overflow enter (please tick):

	Further Details
Overland (no SW entry)	
Piped Stormwater network	
Open Drain	
River	
Open Waterway/Stream	
Street	
Ocean	
Other (Describe)	

DESCRIPTION OF INCIDENT INCLUDING CAUSE.....

ESTIMATED VOLUME OF DISCHARGE (#).....
 Time discharge started.....
 Time discharged ceased.....

DESCRIPTION OF REMEDIAL ACTION TAKEN.....

 Rodding Jetting Root Cutting Suction Truck Excavation Pipe Repair Pump Repair

 Removal of Debris Washdown affected area Disinfect

PERFORMANCE DATA

Notified By:

NOTIFIED		TIME ON SITE		COMPLETED (ALL WORKS)	
DATE:	TIME:	DATE:	TIME:	DATE:	TIME:
/ /	AM/PM	/ /	AM/PM	/ /	AM/PM

VERIFIED..... ENTERED..... FILED.....