

Title: DrainWise Actions
Section: Community Lifelines
Prepared by: David Wilson (Director Lifelines)
Meeting Date: 28 September 2017

Legal Financial Significance = Medium

Report to FUTURE TAIRAWHITI Committee for decision

SUMMARY

This report is part of the ongoing process to meet Council's stated objective to the community to reduce wastewater overflows to rivers and onto private property for cultural, environmental and health benefits. This will be achieved by making Gisborne's wastewater and stormwater network, which includes private property, perform better and direct water to where it belongs, particularly during wet weather.

An independent review of the DrainWise plan by 4Sight Consultants agree that the greatest gains to meeting our objective is to reduce flooding on private property and should be our primary focus. This independent review provides confidence in our plan, but stresses the need to stay focussed in addressing the on-property issues.

Council has been unsuccessful in obtaining ECT funding to address on-property flooding and needs to seek Committee agreement about moving forward to fix and fund on-property flooding.

Without agreeing how we progress the on-property issues Council's current response to reducing large volumes of stormwater getting into the wastewater network is largely focussed on upgrades and renewals of the public wastewater pipes and will only partially achieve our objective.

Addressing the flooding on private property is multifaceted especially when considering fairness, equity and confidence in making meaningful progress.

This is highlighted by the fact that those households most affected by on-property flooding are not necessarily the exacerbators of the problem. Rather they are on the receiving end of a history of land development and drainage decisions.

What is clear is that:

- a) fixing the issue of on-property flooding has wider benefits
- b) the solution to finding the most equitable approach to fixing can only be resolved in consultation with the community.
- c) private property drainage needs to be connected to the stormwater network; and
- d) the wastewater network needs to be protected from inflow of (rain)stormwater
- e) Proactive maintenance of the existing wastewater network is required to ensure its capacity and performance are optimised.

To make it happen we need Committee agreement that these (c, d & e) are the fundamental infrastructure issues to be fixed as a priority, and that a White Paper be prepared as part of the process to arrive at an equitable approach to funding infrastructure upgrades on private property.

The decisions or matters in this report are considered to be of **Medium** significance in accordance with the Council's Significance and Engagement Policy.

RECOMMENDATIONS

That the Future Tairāwhiti Committee:

- 1. Notes the contents of this report.**
- 2. Agrees that items a-e encapsulate the most effective way forward to resolving this long-standing issue.**
- 3. Notes that a White Paper to help Council and the community arrive at an agreed way(s) to fund the work that is needed to fix on-property flooding.**

Authorised by:



David Wilson
Director Lifelines

Keywords: integrated stormwater and wastewater management, sustainable water strategy, white paper, funding, DrainWise, community engagement, on-property flooding, equitable

BACKGROUND

1. The Gisborne City wastewater network has been designed and built to manage the wastewater needs of Gisborne households and businesses for growth over the next 30+ years.
2. During heavy rainfall, the wastewater network cannot cope with the amount of water going through it. The excessive stormwater flow into the wastewater network can cause the back up of wastewater in the pipes to the extent that it can discharge from gully traps onto private property, make toilets unusable and damage wastewater infrastructure.
3. To minimise these risks, the network has a series of relief valves that can be opened to allow the wastewater to be discharged in a controlled manner to rivers and the stormwater network (and then to rivers) within the urban area.
4. Controlled wet weather wastewater overflows do not occur regularly, but only in response to high and prolonged rainfall events. Table 1 shows the frequency of overflow events over the past nine years.

Reporting Year	Frequency of discharges
2016/17	4
2015/16	1
2014/15	1
2013/14	4
2012/13	3
2011/12	4
2010/11	3
2009/10	4
2008/09	2
2007/08	2
Prior to 2006/07	unknown

Table 1: Overflow discharge frequency

5. The very wet start to our recent winter, from April to the end of May 2017, has resulted in overflows on four separate occasions in an approximate two-month period. This has reiterated and highlighted the problems with the performance of the wastewater network.
6. The community have many concerns around the public health, environmental and cultural impacts of wastewater flowing onto private property and into rivers and then to harbours and beaches.
7. Some individual landowners are not able to use toilets and showers during heavy rainfall, and have increasing dampness under houses due to stormwater ponding (which in some instances includes wastewater).
8. As part of a re-focussed commitment to fixing the Gisborne stormwater and wastewater network the Assets & Infrastructure Committee has been kept up-to-date with all developments in the water utility space. Noting a project update report on the DrainWise Programme at its meeting on 3 August 2017 [Report 17-312] and a historic overview of how Gisborne District Council has delivered its stormwater and wastewater utilities programme from 1958 until 2017 at its meeting on 14 September 2017 [Report 17-430].
9. Councils current target levels of service are:
 - a. Reduction of wastewater releases into rivers and streams from four times per year (average) to once every two years (average by 2026/27).

- b. Reduction of wastewater discharged onto private property during heavy rain from four times per year (average) to once every two years (average) by 2026/27.
 - c. Greatly reduce the number of times households can't use their toilets and wastewater system during a heavy rain event by 2036/37, (10-20% probability of occurring annually).
 - d. Reduce ponded water on private properties causing dampness in houses.
10. This report highlights the need to maintain focus on private property related issues as a priority and the need to agree with the community the way forward to address this collective problem as reaffirmed by an independent review of the Drainwise
11. To address this 4Sight Consulting were engaged to help us review the focus of Council stormwater and wastewater network activities so that our efforts are targeted to resolve worst problems first. Their report is attached to this report as **Appendix 1**.

DISCUSSION and ACTIONS

A summary of the DrainWise Strategic Review, September 2017, 4Sight Consulting

12. The report recognises the DrainWise Plan (the Plan) as an informative and well written document, informed by robust information from stormwater and wastewater models and extensive consideration of on-the-ground issues. The review also concluded that the actions that are indicated in the Plan appear comprehensive and relevant to addressing the identified problems. There is a concern that the main cause and therefore source of improvement has stalled due to lack of grant funding and direction on how to proceed from here.

The main issue

13. The main issue affecting the performance of the Gisborne water networks is on-property flooding which happens (in large part) because private properties are not connected to the public stormwater network. This causes rain water to enter the wastewater network in volumes it was never designed to cope with. Overflows¹ and other consequences largely arise from this.
14. The emphasis on reducing wastewater discharges (as reflected in its full title²) actually skews what the key problem is, and consequently skews its delivery. So even though the DrainWise programme is being carried out, the main issue does not appear to be the main focus of its current implementation due to lack of funding options and enforceability. The report concludes that this slightly incorrect emphasis is the reason why the expected level of overflow discharge reduction has yet to be seen.
15. The report has recommended that reducing private property flooding, albeit potentially costly, is likely to be the single best investment to reduce overflows and, has significant other social and health impacts.

Develop and Implement an Equitable Approach to Resolving On-Property Flooding

16. Reducing private property flooding is identified in this report as likely to be the single best investment to reduce overflows and, has significant other social and health impacts.

¹ Wastewater overflows occur primarily in wet weather but can also occur in dry weather as a result of blockages. To protect public health wastewater networks are designed so that in the event of heavy rain, pipe blockages or breakages, wastewater will overflow into the environment - through manholes and engineered overflow points - rather than backing-up in pipes and flowing onto streets or back into your home.

² Drainwise Wastewater Discharges Reduction Plan, 2016

17. While challenging and potentially costly, the issue of how private property flooding is funded can only be resolved in consultation with the community. What is clear is that it must be an equitable approach to reducing private property flooding.
18. There is wider betterment associated with flood mitigation. Those most affected are not necessarily the exacerbators of the problem, but rather they receive the consequences of a history of land development and drainage decisions.
19. A discussion on funding options is included in the 4Sight Review (**Appendix 1**). It is recommended that this form the starting point for work to develop and implement an equitable approach to resolving on-property flooding, and that this work be included in the future work programme for the Transformation & Relationships hub.

ASSESSMENT OF SIGNIFICANCE

Criteria	This Report	The Process Overall
The effects on all or a large part of the Gisborne district	Low	Medium
The effects on individuals or specific communities	Medium	Medium
The level or history of public interest in the matter or issue	High	High
Inconsistency with Council's current strategy and policy	Low	Low
Impacts on Council's delivery of its Financial Strategy and Long Term Plan.	Low	Low

20. This report is part of a process to arrive at a decision that may be of medium level in accordance with the Council's Significance and Engagement Policy. This is because the DrainWise programme has a history of public interest, has the potential to provide environmental and human health benefits, and also has the potential to cost a lot of money over a set period of time, until the issue is fixed.

COMMUNITY ENGAGEMENT

21. The community has signalled through social and print media that it wants Council to reduce the frequency that wastewater is discharged into rivers, streams and private property during heavy rains. These actions will ultimately result in this outcome.
22. Council has committed in the 2015-2025 Infrastructure Strategy to *“working with the community in a combined public and private effort to reduce the inflow and infiltration of storm water into the wastewater network during wet weather event so that in the future the frequency and severity of this issue is alleviated.”* These actions deliver on this commitment.
23. Developing a White paper³ on funding options for the purpose of asking the community how to most equitably fund infrastructure upgrades on private property is a recommendation of this report.
24. The White Paper would be presented to Committee for consideration at their meeting on 30 November 2017 and the options for consultation as part of the 2018-2028 Long Term Plan (in March-April 2018) agreed upon.

³ A white paper is an authoritative report or guide that informs readers concisely about a complex issue and presents the issuing body's philosophy on the matter. It is meant to help readers understand an issue, solve a problem, or make a decision.

CONSIDERATIONS

Financial/Budget

25. The costs of delivering the DrainWise Wastewater Discharge Reduction Plan (December 2016) are budgeted for within the Water Utilities annual operational budget of \$300,000.
26. Additional operational budgets have been promoted for inclusion in the 2018-2028 Long Term Plan as a response to the Freshwater Plan 2017, they are:

Routine Interceptor cleaning	\$100,000	Improved network performance
Increased jet cleaning	\$100,000	Reduce dry weather overflows
Increased surveillance	\$50,000	Improve performance, reduce overflows
Increased Pump Station cleaning	\$100,000	Improved network performance

Legal

27. To comply with the Freshwater Plan 2017 - part of the Tairāwhiti Resource Management Plan - Council must have a consent by 2020 if it is to legally discharge wastewater into rivers and streams in emergency scenarios.
28. Discharges of untreated sewage from the reticulated infrastructure network shall be managed to:
 - a. Minimise the frequency of these discharges.
 - b. Achieve performance of an overflow occurrence of no more than 50% probability in any given year.
 - c. Issue discharge permits for no longer than 5 years except where there is evidence from past performance to demonstrate that wastewater overflow events can reliably achieve the performance standard in clause b. above.
 - e. An annual public report on the number and size of overflows, and progress towards their reduction is provided.
29. It is possible that a Bylaw would assist with the management of stormwater and wastewater. This is because it would give Council a mechanism to address illegal drainage. The findings of legal advice on the likely effectiveness of a drainage bylaw will be presented to Committee as part of ongoing updates on the stormwater-wastewater network solution at a later date.

POLICY and PLANNING IMPLICATIONS

30. The commitment to reducing stormwater inflow and infiltration is consistent with Councils policies and plans. Specifically, the 2012 and 2015 Long Term Plans, Infrastructure Strategy 2015 and the *DrainWise Wastewater Discharge Reduction Plan* (December 2016).
31. Delivery of this commitment meets the intent of the Local Government Act (2002) for local authorities to: "...play a broad role in meeting the current and future needs of their communities for good-quality local infrastructure, local public services, and performance of regulatory functions." It also places us in the best position possible to meet the new mandatory requirements and targets of the Freshwater Plan 2017.

32. The actions described in this report are part of the way we will deliver the Gisborne District Council Strategic Priority *Tairāwhiti Wai* to “develop an integrated and sustainable strategy for water, improve the wellbeing of our waterways and coastal environments, including the protection of healthy soil.”

RISKS

33. Council may need to manage property flooding to a higher standard than required by the Building Act. There are a suite of tools to help us do this, including Code of Practice⁴ (currently under review to take into account changes from the Freshwater Plan such as compliance with TP10⁵) and Bylaw.

NEXT STEPS

Date	Action/Milestone	Comments
30 November 2017	Report a 'White Paper' to Assets and Infrastructure Committee describing the full suite of possible funding options that could be used to pay for fixing on property stormwater issues.	This is likely to be a decision report – seeking a resolution of which possible funding options to present to the community.

APPENDICES

- APPENDIX 1: *DrainWise Strategic Review* – for Gisborne District Council Lifelines Department, (September 2017) 4Sight Consulting

⁴ Code of Practice is a Council document and relates to public owned assets. The requirements of the Building Act relate to private property assets.

⁵ TP10 relates to Stormwater Management Devices as described in Technical Publication 10 (TP10) - Design Guidelines Manual. Auckland Council, 2003