

8. REPORT ON ABATEMENT NOTICE RECEIVED FOR STORMWATER DISCHARGE TO FALCONER CREEK AND DRAFT STORMWATER BYLAW (Matt Bayliss)

(Report from 3 Waters Asset Manager – 29.09.21)

Introduction

The Council holds four resource consents associated with the discharge from its stormwater networks in Gore, Mataura, Waikaka, Pukerau and Mandeville. On 29 June 2020, 6 July 2020 and 13 August 2020, Environment Southland received complaints from the public about discharges to Cronin's Creek (more commonly known as Falconer Creek), which created conspicuous changes to the colour of water in the creek.

Following an investigation into these incidents, Environment Southland issued the Council with both a formal warning and an abatement notice. While the abatement notice was originally issued to the Council on 15 October 2020, a revised abatement notice was issued on 26 January 2021 following an appeal.

This revised abatement notice required the Council to:

- a) Implement a sampling programme within the Falconer Road catchment over a six month period from the date of the notice*
- b) Where the sampling programme confirms sources of sediment contamination from within private properties connected to the Council's stormwater network, prepare an appropriate policy framework ready for consultation, such as a stormwater bylaw, that can provide Gore District Council with the necessary tools to manage Stormwater discharges from private properties within the Falconer Road Industrial Zone (and may include a requirement for improvements to be completed by those landowners such as sealing driveways and yards). The appropriate policy framework must be ready for consultation within 12 months from the date of the notice.*
- c) Undertake a trial installation of 'drain guards' in roadside sumps as a temporary measure to reduce the risk of further sediment runoff for a period of six months from the date of the notice.*

- ✚ If the Council does not comply with the abatement notice it may be prosecuted under section 338 of the Resource Management Act 1991. Refer to the abatement notice attached for further details.

Actions taken to meet the requirements of the abatement notice

To ensure a requirements of the abatement notice were met, the Council implemented a sampling programme and trial installation of 'drain guards.'

Sampling programme

- ✚ Four targeted sampling rounds were completed in the Falconer Road catchment following significant rain on 16 and 30 November 2020 and 11 and 21 May 2021.

A summary of the findings from the sampling programme is provided below, refer also to Map 1 attached for further details:

- Following rain events there is a notable increase in Total Suspended Solids (TSS) in Falconer Creek downstream of the Council's stormwater discharge points, refer to photos 1 and 2 below.
- The TSS in the stormwater runoff from the industrial areas in the Council's stormwater network is notably higher than stormwater run-off coming from residential areas in the catchment.
- The stormwater runoff from some industrial properties appears to significantly increase the TSS loading in the discharge from the Council's network (ie there are some properties worse than others). However, to completely resolve the discoloration issue in Falconer Creek, it is expected some form of stormwater treatment will need to be implemented for the majority of industrial properties in the catchment.
- A build-up of dust and/or debris, which is also likely to contribute to the issue, has been observed on some of the Council's roads in the catchment. It is believed this is due to the industrial nature of the area and the resulting large number of heavy vehicle traffic movements. Refer to photos 3 and 4 below for further examples of this issue. This indicates sealing gravel hardstands in the catchment is unlikely to completely resolve the issue and some form of treatment system for run-off from the road reserve will also be required.



Photo 1 – Falconer Creek upstream of the Council's stormwater discharge points following a rain event



Photo 2 – Falconer Creek downstream of the Council's stormwater discharge points following a rain event



Photo 3 – Sediment build up along Aparima Street



Photo 4 – Sediment build up along Falconer Road

Drain guards

Drain guards are a specially designed fabric “sock” that can be installed in stormwater sumps as a temporary solution to capture sediment and other contaminants in stormwater, refer to photo 5 below for further details.

Drain guards were installed in five sumps along Waiau Street in November 2020 and removed in mid-May 2021. Unfortunately, it is not practicable to sample the water quality upstream and downstream of these sump guards and therefore it is difficult to gauge their effectiveness. However, at the end of the trial, there was a notable build-up of debris and sediment in the base of drain guards indicating they had been effective to some degree.

A further trial of drain guards along Waiau Street, Aparima Street and Oreti Street is currently being implemented. It is worth noting, while these trials will provide useful information, due to their limited life span, high ongoing costs, and limited treatment capacity the use of drain guards is not expected to be a cost-effective solution in the long-term.



Photo 5 – Temporary drain guards that can be installed in stormwater sumps

Draft Stormwater Bylaw

The stormwater sampling programme that has been completed has confirmed at least some of the sediment contamination is coming from within private properties connected to the Council's stormwater network. Due to this, in accordance with the requirements of the abatement notice the Council is required to *"prepare an appropriate policy framework ready for consultation, such as a stormwater bylaw, that can provide the Council with the necessary tools to manage Stormwater discharges from private properties."* The abatement notice requires this policy framework to be ready for consultation by 26 January 2022.

- ✚ After reviewing a number of other Councils' stormwater bylaws the attached draft Stormwater Bylaw has been prepared for the Council's consideration. Also attached, is a Statement of Proposal required under the Local Government Act. In particular, I would draw the Council's attention to the following clauses of the bylaw:

- Clause 5.1 which outlines the prohibited activities under the bylaw such as the discharge or storage of hazardous substances, chemical, wastewater, tradewaste or other substance that causes or is likely to cause nuisance or contravene the Council's resource consent conditions, or the requirements of the Resource Management Act and associated Policy Statements and Plans.
- Clause 10 which outlines the actions and penalties that can be enforced under the bylaw including non-compliant notification, the Council recovering costs for remedial works, prosecution or the issuing of an infringement notice.

The enforcement actions and penalties outlined in this bylaw may appear heavy handed. However, it must be appreciated to resolve the stormwater quality issues that resulted in Environment Southland issuing the Council with an abatement notice, it is likely some property owners will be required to invest significant sums of money.

I would also draw the Council's attention to clause 3.5 which outlines the requirements where private property stormwater and wastewater separation is required to be achieved. In recent history, all new houses being constructed have been required to achieve full separation. Additionally, in some situations, where significant extension and new ancillary buildings have been constructed, full or partial separation has also been required. However, currently there is no clear guidance as to when the requirement to achieve separation is triggered. This therefore requires a judgment call to be made by Council officers at the time and can lead to inconsistency and uncertainty for the property owner. It is expected that the inclusion of clause 3.5 will resolve this issue.

Discussion

Through the development of a stormwater bylaw, the Council will meet the requirements of the abatement notice. However, to meet the requirements of the Council's stormwater discharge consents, it must ensure *"there is no conspicuous change in colour in the Maitai River or Falconer Creek beyond the zone of reasonable mixing."* To meet this requirement will require significant improvements in the quality of stormwater currently being discharged from the Council's network.

Improvements to stormwater quality can be achieved through a variety of mechanisms such as:

- Ensuring good source-controls are in place such as sealing hardstand area's, diverting and attenuating stormwater flows, bunding and or covering critical area's such as wash-down pads etc.
- The installation of propriety treatment devices manufactured by specialist companies. Some product information regarding the Stormwater 360 *STORMFILTER* and *CASCADE SEPARATOR* devices is attached to this report for further information regarding examples of these propriety devices.
- The installation of 'green' infrastructure such as rain gardens, wetlands, infiltration basins and permeable paving to use natural processes such as vegetation and soil media to provide stormwater management. These solutions are generally also recognised as an opportunity to add value to the urban environment at the same time as providing stormwater treatment.

As a starting point, Council staff have had some preliminary discussions with Stormwater 360 (a specialist company who specialise in stormwater treatment) regarding the use of priority treatment devices both on a property by property scale and at a catchment wide scale. In short, it is likely that two stages of treatment will be required as follows:

- A pre-treatment device which removes coarser sediment, trash, debris, oil and grease – it is likely that it will be most cost effective to install these on a property by property basis.
- A secondary filtration device which removes finer particles dissolved metals, and/or nutrients – it is possible that it will be most cost effective to provide this treatment on a catchment wide basis.

In terms of implementation it is expected that, to prevent the secondary filtration system from being overwhelmed, property specific pre-treatment systems would need to be installed for the majority of the catchment prior to a filtration system being installed.

With regard to pre-treatment devices, likely to be required in private property treatment, the capacity and therefore cost of the device required largely depends on the size and type of the catchment. For a small to medium sized industrial property, ie up to 4000 m² with an average amount of sediment in their runoff, the appropriate device would cost approximately \$12,000. Note, this cost excludes installation costs which will vary significantly from property to property depending on the existing drainage. The required device(s) for larger properties and properties with high sediment loadings would be significantly more than this. In addition to the installation of these devices good source-controls such as sealing hardstand areas, diverting and attenuating stormwater flows, bunding and or covering critical areas such as wash-down pads etc is also likely to be required.

Until more design work is completed it is very difficult to determine the cost of the filtration devices that would likely to be installed on a catchment-wide basis. However initial investigations have suggested these costs would run into the millions of dollars. Given the Council's current challenges and financial limitations with addressing stormwater separation and improved wastewater treatment, this does raise the question as to where stormwater treatment should sit on the Council's list of priorities.

While the devices provided by Stormwater 360 are likely to be effective at improving stormwater quality, it should also be noted that Stormwater 360 have stated that it is quite possible that this type of "mechanical filtration" will not completely resolve the discoloration issue that we are currently seeing in Falconer Creek and therefore the Council may still not meet the current conditions of its resource consent. While there are options to provide a higher level of treatment (ie chemical dosing and coagulation and flocculation) due to the cost associated with this level of treatment, it is not believed this would be viable.

Due to this it is believed that a variation to the Council's existing resource consent may be worth exploring further. However in saying this, improvement to the current stormwater quality would be expected to be required as part of any revised consent conditions.

Three Waters reform

As the Council is aware, the Government's proposed reform to the delivery of three waters services is progressing at pace. The Government's current preferred approach is for the delivery of three waters services for the entire country to be transferred into four new entities. While there was initially some uncertainty regarding whether the delivery of stormwater services would be part of the proposed new entities' responsibilities, it is now understood that the preferred approach is to include stormwater. Due to this, the Council may be tempted to hold off on the development of a Stormwater Management Bylaw, leaving this to the proposed new independent entities.

However, while change to the three waters service delivery is anticipated, there is currently a lot of uncertainty around what form this will take. It is also important to note that if the proposed new three waters service delivery entities do progress, these are not expected to be established until mid-2024. Until then, the Council is required to meet its obligations under any resource consents that it holds. Due to this and to ensure the requirements of the Abatement Notice are met, it is recommended that the Council proceeds with addressing this issue now.

Is a bylaw required?

Under section 155 of the Local Government Act 2022, before commencing the process of making a bylaw, the Council must determine that a bylaw is the most appropriate way of addressing the perceived problem. The Abatement Notice issued by Environment Southland states that an appropriate policy framework must be ready for consultation within 12 months. In reality however, a standalone policy without

regulatory teeth in the form of enforcement and, if necessary prosecution, is unlikely to produce the changes expected and improvement in discharges to Falconer Creek.

It is therefore contended that a bylaw is the most appropriate means by which to address the problem contained in the Abatement Notice.

Does the proposed bylaw affect the New Zealand Bill of Rights Act 1990?

Section 155(2)(b) of the Local Government Act 2002 (LGA) requires the Council to determine whether the proposed bylaw is inconsistent with the New Zealand Bill of Rights Act 1990. Section 147(3)(a) of the LGA also requires the Council to be satisfied that the bylaw is a reasonable limitation on people's rights and freedoms.

The Bill of Rights Act, inter alia affirms democratic and civil rights in the areas of freedom of peaceful assembly, association and movement, which can potentially be impacted on by a bylaw. It is considered that there are no obvious infringements or implications with the New Zealand Bill of Rights Act 1990 in regard to the proposed bylaw. No impacts on freedom of assembly, association and movement are foreseen.

Consultation process

The proposed bylaw will be applicable to any property discharging into any of the Council's stormwater networks. However, the focus of attention will initially be on the industrial properties in the Falconer Road catchment. Due to this a letter explaining the situation and the Council's plan to develop a stormwater bylaw has been delivered to all industrial properties in the Falconer Road catchment.

Once the Council has agreed to the draft bylaw, a public consultation period will be initiated. This will involve connecting with residents directly affected, as well as the wider community, through the Council's communications platforms – digital, mainstream media and public information sessions.

In accordance with the Council's Significance and Engagement Policy, submissions on the draft bylaw will be conducted under the Special Consultative Procedure (SCP), which is a formal process. The Council is required to give the community at least one month to make formal submissions on a proposal and to make these submissions publicly available.

Submitters will need to be given an opportunity to speak to their submissions at a hearing. After consideration of submissions, the bylaw may be amended before going to the Council for adoption.

Conclusion

In January 2021, following ongoing complaints regarding the impact the Council's stormwater was having on the water quality of Falconer Creek, Environment Southland issued the Council with an abatement notice. This abatement notice required the Council to implement a sampling programme, develop a stormwater bylaw ready for consultation and undertake a trial installation of "drain guards." If the

Council does not comply with the abatement notice it may be prosecuted under section 338 of the Resource Management Act 1991.

A sampling programme and investigations into this ongoing issue have been completed. This has shown that there are a number of industrial properties that are contributing to this issue. It has also been noted the buildup of dust and/or debris in the road reserve is also likely to contribute to the issue.

There are devices available designed to improve the quality of stormwater. It is expected the solution may consist of a property specific pre-treatment system followed by a catchment-wide secondary filtration system. However, it is important to note this level of stormwater treatment will require significant investment from individual property owners and the Council, and it is still not expected to completely resolve the discoloration issues we are currently seeing in Falconer Creek. Consequently, the Council would still not be meeting the current conditions of its resource consent. Due to this, it is recommended the Council explores the potential to apply for a variation to its existing resource consent.

Even if the Council is successful in obtaining a variation to its existing resource consent, substantial improvement to the quality of its stormwater discharge will be required. It is expected the quickest gains can be made by requiring the worst offending property owners to install pre-treatment devices and/or other source control measures within their properties. To enable this, and to meet the requirements of the abatement notice the Council has been issued, a draft stormwater bylaw has been prepared for consultation.

RECOMMENDATION

THAT the report be received,

THAT the Council resolve pursuant to Section 146 of the Local Government Act 2002, that the adoption of a bylaw is the most appropriate way of managing stormwater within the Gore District,

THAT the Council approve the draft Stormwater Management Bylaw and accompanying Statement of Proposal for public consultation, pursuant to Sections 155 and 156 of the Local Government Act 2002,

AND THAT the Council investigate the potential to obtain a variation to its existing stormwater discharge consent to ensure it can realistically meet its compliance obligations.

5. Minutes from Council Meeting

REPORT ON ABATEMENT NOTICE RECEIVED FOR STORMWATER DISCHARGE TO
FALCONER CREEK AND DRAFT STORMWATER BYLAW (SC2967/SC3345)

A report had been received from the 3 Waters Asset Manager advising that the Council held four resource consents associated with the discharge from its stormwater networks in Gore, Mataura, Waikaka, Pukerau and Mandeville. On 29 June, 6 July and 13 August 2020, Environment Southland had received complaints from the public about discharges to Cronin's Creek (more commonly known as Falconer Creek) which created conspicuous changes to the colour of water in the creek. Following an investigation into those incidents, Environment Southland issued the Council with a formal warning and an Abatement Notice. Following an appeal, a reviewed Abatement Notice (the Notice) was issued on 26 January 2021. The Notice required the Council to:

- a) *Implement a sampling programme within the Falconer Road catchment over a six month period from the date of the notice.*
- b) *Where the sampling programme confirms sources of sediment contamination from within private properties connected to the Council's stormwater network, prepare an appropriate policy framework ready for consultation, such as a stormwater bylaw, that can provide Gore District Council with the necessary tools to manage Stormwater discharges from private properties within the Falconer Road Industrial Zone (and may include a requirement for improvements to be completed by those landowners such as sealing driveways and yards). The appropriate policy framework must be ready for consultation within 12 months from the date of the notice.*
- c) *Undertake a trial installation of 'drain guards' in roadside sumps as a temporary measure to reduce the risk of further sediment runoff for a period of six months from the date of the notice.*

If the Council did not comply with the Notice, it may be prosecuted under section 338 of the Resource Management Act 1991. A copy of the Abatement Notice had been circulated with the agenda.

Details of the actions taken to meet the requirements of the Notice had been included in the report.

Also circulated with the agenda, was a draft Stormwater Management Bylaw. The requirements of the Abatement Notice meant the Council was required to "*prepare an appropriate policy framework ready for consultation, such as a Stormwater Bylaw, that could provide the Council with the necessary tools to manage stormwater discharges from private properties*". The Notice required the policy framework to be ready for consultation by 26 January 2022.

- Clause 5.1 of the draft Bylaw outlined the prohibited activities under the bylaw such as the discharge or storage of hazardous substances, chemical, wastewater, trade waste or other substance that caused or was likely to cause nuisance or contravene the Council's resource consent conditions, or the requirements of the Resource Management Act and associated Policy Statements and Plans.
- Clause 10 outlined the actions and penalties that could be enforced under the bylaw including non-compliant notification, the Council recovering costs for remedial works, prosecution or the issuing of an infringement notice.

The Manager also drew the Council's attention to clause 3.5 which outlined the requirements where private property stormwater and wastewater separation was required to be achieved. In recent history, all new houses being constructed had been required to achieve full separation. Additionally, in some situations, where significant extension and new ancillary buildings had been constructed, full or partial separation was also required. However, currently there was no clear guidance as to when the requirement to achieve separation was triggered. It required a judgment call to be made by Council officers at the time and could lead to inconsistency and uncertainty for the property owner. It was expected the inclusion of clause 3.5 would resolve that issue.

The Manager said there were multiple properties contributing to the problem. The worst areas would be targeted first and the discharge and quality would improve as a result. He added some of the conditions in the resource consent were quite onerous and difficult to achieve. It was proposed to revisit the consent and endeavour to achieve amended conditions.

In response to His Worship asking about the timing of the consultation process, the Manager said the Bylaw would apply to the entire urban networks in both Gore and Mataura. It was proposed that the consultation period, which was a minimum of 20 working days, would occur prior to Christmas. If there was a need for a hearing that it could be held later in January 2022. There were no particular time pressures for the consultation to be undertaken.

Cr Phillips asked whether the Bylaw should be District wide as it could also affect Waikaka and Mandeville. The Manager confirmed it would cover the stormwater networks across the District - wherever there was a reticulated stormwater network. Cr Highsted reflected on what was occurring in the rural community and catchment groups. He wondered whether there was an opportunity for the Council to work with industries and residents and facilitate the formation of a landowner led catchment group. He thought it could be a positive step the Council could take to bring out some leadership as the businesses embarked on the resolution of what they had to do in that area. He would be keen to see that incorporated into the recommendation.

Cr Dickson asked for clarification about the Council's responsibility to mitigate sediment from streams from private property. She understood it was Environment Southland's role. The Manager advised where stormwater discharged into the

Council's reticulated network, the Council held the resource consent for the resulting discharge into the environment and it became the Council's responsibility to manage any private property discharging into that network. It was different to a property that was discharging directly to the environment from the property and in that case, it was an Environment Southland process to manage.

Cr Dickson asked if it was not practical to sample the water upstream and downstream of the sump guards? Was it cost? The Manager said there were no sample points and it would be a matter of installing dedicated sampling and access points which could be done, but would be very costly to do per sump.

Cr Gardyne asked how it applied to the gravel roads in the urban and rural areas. Would the existing gravel roads need to be sealed in the urban area. The Manager said the Bylaw did not specifically apply to that but the principles did. He was not sure how Environment Southland planned on tackling that issue. Potentially it would become an issue and he was unsure how it would be handled going forward.

Cr McPhail agreed the Council needed to do something. He thought Cr Highsted's suggestion for a catchment group was a good one. There were strong groups in the rural areas. He thought something similar could be applied to the industrial area.

Cr Bolger asked if some of the Council's stormwater discharged into Falconer Creek and there was a business that could be contributing to that and the Council had knowledge of it, would it have to approach the business to do something inside its boundary. The Manager said the sampling undertaken had shown there was quite an increase in sediment in Falconer Creek downstream of the stormwater discharge points compared to upstream. The evidence was clear the sediment was coming from the Council's discharge into the creek. Where there were specific properties discharging a significant amount of sediment into the stormwater, the Council would work with the property owners to come up with a solution. The solution for each property could be different and there were a number of different approaches that could be taken rather than a one size fits all. Cr Bolger asked if the sediment was coming from the Council's roading network or from businesses who were discharging into the wastewater system that went into the stormwater. The Manager said it was a combination of both. He suspected a large majority of it was coming from private property but there was certainly a component that was coming from the Council's road reserve.

Cr D Grant said there were a number of businesses in the area that did not have hard seal. During heavy rain it turned to mud which was a major issue, he believed. He said one of the larger businesses in the area was a transport operator who may be able to solve some of its own problems. Cr Bolger added the transport operator came under considerable scrutiny from Environment Southland due to its fertiliser storage and had been subject to a lot of inspections. He was confident the company was containing its own discharge.

Cr D Grant moved THAT the report be received,

THAT the Council resolve pursuant to Section 146 of the Local Government Act 2002, that the adoption of a bylaw is the most appropriate way of managing stormwater within the Gore District,

THAT the Council approve the draft Stormwater Management Bylaw and accompanying Statement of Proposal for public consultation, pursuant to Sections 155 and 156 of the Local Government Act 2002,

THAT the Council investigate the potential to obtain a variation to its existing stormwater discharge consent to ensure it can realistically meet its compliance obligations,

AND THAT the Council facilitate the establishment of a catchment group comprising landowners in the Falconer Creek discharge area.

The motion was seconded by Cr Highsted, was put and it was carried.

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Cr D Grant queried when the consultation would occur. He favoured it being delayed until February.

In response to His Worship, the Manager said the Abatement Notice required the Council to have the appropriate policy framework prepared by January 2022.

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