# **Bulls Community Committee**

Tabled Documents

8 August 2017

## BULLS COMMUNITY COMMITTEE MEEETING

My name is Tracey Gibbs and I am a resident of the small coastal village of Scotts Ferry. We have become increasingly concerned with the drainage and flooding issues affecting our village. We have approached council over the years and the most we have achieved in recent years is a cleaning of the drains and the unblocking of a small section of drain.

There are a few issues facing our village.

### **ISSUE 1 WE ARE NOT RATE PAYER FUNDED**

We have recently found out that Scotts Ferry, is not rate payer funded? This means that even though we pay rates the same as everyone in the Rangitikei, when we need work done on the storm water system that was installed by the council, there is no funding available for it to be done because we are not rate payer funded.

#### **ISSUE 2 OUR DRAINS DON'T WORK**

The drains at Scotts Ferry where installed by the council, they have not been renewed or regularly maintained since they were installed 20 years ago. They no longer perform as they were meant to, due to lack of maintenance and due to an increase in water volume. The road drain to the western end of the village has been installed to run nowhere? When we have rain, it fills the already water logged drains and spills over the road cutting of our only emergency exit, should a large flooding event occur. This continual flooding over the road is causing roading issues and also creating a swamp land where we did not have one before. The open drains are clogged with weed and grass and they are stagnant and do not drain. The underground perforated storm water drains... we suspect... have also become blocked due to lack of maintenance over the years..... causing drainage issues for houses and waterlogging land around the village











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### SSUE 3 THE CLOSING OF THE FLOOD GATES

Three flood gates have been installed. There is a large flood gate at Amons Creek and two smaller ones at the eastern end of the settlement. These gates allow storm and surface water flow from the village in to the river. When the river reaches a height of 4.5mts the pressure of the flowing river shuts the gates and stops the river flowing back in to the settlement... Herein lies a problem.... Amon's creek s spring feed. Once the gate is shut the water from the creek and also from the runoff over the flattened dairy farm land, continues to puild up behind the gate. This then floods the paddocks and floods over Parewanui road cutting of our legal road access in and out of the rillage. When the other two smaller gates are closed a similar situation occurs ....surface water and storm water builds up behind the stop pank and around the houses and camp ground at the eastern end of the village. Then all the drains back up with water right thru the illage as it has nowhere to go.

These flood gates were closed 8 times last month between 14<sup>th</sup> and 25<sup>th</sup> July 2017 ......Scotts ferry is waterlogged



Another issue is .....Amons Creek has a system where the local farmer brings his tractor down and pumps water over the stop bank and into the river to alleviate the back flow issue but this system is relying on a member of the public –at their discretion-using their equipment –if it is available- at their cost - to do this job. On one occasion the tractor could not keep up with the water flow due to material being stuck in the gate and river water coming back up the drain.

### ISSUE 4 EXTRA PRESSURES ON DRAINAGE SYSTEM

The dairy farm that surrounds the village, has over the years, cleared all the natural forming sand hills and forestry from its land. These acted as a natural buffer to stop water running off the land down to the village. The drains at Scotts ferry now have to cope with this run off..... as well as the backup of water that arises when the three drain gates are closed. Niwa has predicted that the western coast of New Zealand can expect more rainfall and an increase in more extreme weather events in future years. This situation is not going to get better.

### **CONSEQUENCES FOR RESIDENTS**

Most of the houses at Scotts Ferry are lived in by permanent residents

The Residents at Scotts Ferry are a caring lot and keep the village looking good. Gardens are planted and maintained, grass verges up and down the roadsides are mowed, areas have been created by the locals for visitors to off load horses and picnic in, tables and seats have been installed, weed spraying around the village and erosion control.....all these things are all carried out by the residents of Scotts Ferry. Over the years the residents at Scotts Ferry have had several close calls with flooding. During these events it is the residents, mostly retired men, who work to keep the village safe, sand bagging, pumping water with personal equipment, monitoring the situation and carrying out work where necessary, keeping others informed. It is a huge ask to expect this from them on a regular basis.

With the extra water heading our way across land and even more being held up in and around our village when the flood gates are closed, we are fighting an ever increasing battle. We are finding houses and surrounding land are becoming more waterlogged. Where once there was no water now houses have water lying over driveways and on lawns. This water remains for weeks at a time.

Our only emergency exit through the forestry is cut of in times that we need it most. This is due to the road side drain stopping midway along the road, and the drain spilling its contents across the road

### SOLUTION

We would like to be rate payer funded so that work can be carried out to protect us from flooding and to prevent our houses and land becoming more water logged.

We would like all drains to be cleaned and maintained so that they function to a satisfactory standard for the amount of water they now have to cope with.

We would like pumps installed at the two eastern end drains to remove the surface and storm water that builds up around the village when the flood gates are closed.

We would like to see a pump installed at Amons drain to prevent the access road from the village being flooded, this would also alleviate the issue of having to rely on a farmer to bring in his tractor to pump the water that accumulates when the flood gates are closed

While I understand that a dedicated pump would be good in the interim I would like to point out that the majority of people who live at Scotts Ferry are retired and it's a big ask for them.. to man a pump for hours on end ...during a flooding event. A dedicated pump is not a permanent solution.

We would like for the road side drain heading west to be extended through a culvert under the forestry road and channelled into a low lying area on the same side as the drain to prevent storm water flooding over the road to the opposite side and blocking our only emergency exit. We would like at least one exit free of flood water.



At present we do not feel safe in our community. Every big rain event ....I along with other residents feel very uneasy with our situation down here at Scotts ferry. Not only do we await the calls from Horizons alert system regarding the level of the river but residents are taking themselves out in poor weather conditions to check on the levels of drains or making sure flood gates are closed properly and not jammed with a stick.... as has happened in the past..... allowing river water to come in. We are watching the level of flooding over the eastern end of the township and now we have to monitor the western end as well. Pumps are readied cars are packed and out of sheds ready to take of if need be and everyone is on standby. We have to be just as watchful of the water building up behind the stop bank as we are of the river itself.

Something needs to be done and that is why Im here today to ask that you rectify our issues please.

Thank you





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# Memorandum

То:	Bulls Community Committee	
From:	Ellen Webb-Moore	TABLED DOOL
Date:	8 August 2017	DUCOMENT
Subject:	Rumble Strips On State Highway Or	labled at BUID COMMUNIA
File:	3-CC-1-1	on O HUNST 2017-COMM, HER
		V Item 9.

- At the last meeting on June 13, concern was expressed about the safety of the SH1 entrance into Bulls, following another accident involving a truck colliding with the RCA. It was undertaken by Council staff to find out further information about the possibility of rumble strips being installed at this entrance to alert/ wake drivers.
- 2. A follow up with Reuben Pokiha (Roading Operations Manager) confirmed that a safety engineer has recently been engaged to carry out a report, which has highlighted a number of options. The use of rumble strips has been found to be the least desirable option. Rangitikei District Council's roading team are now in discussion with NZTA regarding elements of funding as it is on a State Highway.
- 3. <u>Recommendation</u>

That the memorandum 'Rumble Strips on State Highway One' be received

Ellen Webb-Moore Policy Analyst



# REPORT

SUBJECT:	Scotts Ferry Stormwater
TO:	Bulls Community Committee
FROM:	David Rei Miller, Asset Engineer
DATE:	8 August 2017
FILE:	6-SW-1-9

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# 1 Background

On 19 May 2017, Tracy Gibbs approached Council with concerns from the Scotts Ferry community regarding stormwater and flooding. Following various meetings that Tracey and John Gibbs held with other parties (including His Worship the Mayor), on 2 August 2017 a site visit was conducted by myself to look at the issues. This was guided by Tracy and John, who generously provided time to go over the problems and potential solutions.

Stormwater assets in Scotts Ferry are indicated in Figure 1, with solid green lines for pipes and dotted green lines for open drains.



Figure 1: Location Map

# 2 The Issues

With its proximity to the mouth of the Rangitīkei River and its low elevation, Scotts Ferry is prone to flooding. The issues mostly occur if both (a) the river is high, and (b) there is localised rainfall, creating a situation in which ponded stormwater cannot flow to the river. This is particularly the case when any of the three flap valves (installed on culverts underneath the stopbank adjacent to the river) are closed by the height of the river. In this situation, these devices, which are designed to prevent the river flooding the township, can then contribute to the township flooding by other means.

There are a number of factors currently heightening the flooding risk for Scotts Ferry:

- 1. Novaflow stormwater pipes, installed in the berms on both sides of the road through the township, may not be performing at 100%. There are sections where flow is impeded, and ponding occurs (Photo 1). The installation year of these pipes is recorded as 1998. Although they seem to be in good structural condition, their performance is in places inadequate.
- 2. Some of the sumps installed along these pipes have silted up, and their capacity is reduced (Photo 2). Phil Gifford from RDC Roading indicates that some of the sumps identified in our GIS have been covered over. Regarding responsibility, this is the same across the District in that Roading is responsible for roadside sumps and legs (including those in the berm at Scotts Ferry), with Utilities responsible for the remainder of stormwater assets.
- 3. There are culverts, most notably road crossings, which are partly blocked (Photo 3). Culverts under the road are the responsibility of RDC Roading, culverts under driveways Utilities.
- 4. Roadside drains to the west of the township are clogged with plant matter (Photo 4).
- 5. Roadside drains to the west of the township come to an end prior to the end of the road. Stormwater is not draining, roads are flooding more frequently, and pavement damage is starting to appear (Photo 5). Levels have been taken by a surveyor, and it may be impractical to facilitate drainage all the way to the beach.
- 6. The open drain on the southern side of the township takes a large proportion of the township's stormwater. This drain is partly clogged by plant matter, and in places its banks are worn by the passage of cattle. In addition, it has several restrictions in the form of bridges placed over it, with small diameter culverts (Photo 6).
- 7. The open drain referred to above is currently listed as in private ownership. It runs through several properties, some of which are private and one of which is Department of Conservation land.
- 8. When the river height is such that the flap valves close, there is no permanent means by which to pump stormwater over the stopbank and into the river (Photo 7 and Photo 8). At times in the past, various temporary solutions have been used: a nearby farmer has assisted with a tractor-driven pump; a fire water pump from the township's fire station has been used; or a pump has been provided by Horizons Regional Council.

- 9. Paddocks to the north of the township have been flattened over recent years. They are now being irrigated for dairying, contributing to soil moisture.
- 10. The Gibbses indicate that the bed of the river in the extent of the township has accreted (raised) by some 1200 mm due to silt build-up.
- 11. Levels have been taken by a surveyor. These indicate that even with adequate maintenance, there may not be sufficient fall to drain all stormwater away from the township.

Adding to the flooding issues for the township is the fact that their primary means of egress, Parewanui Road, can easily be cut off by floodwaters. There is an emergency egress through private forest to the northwest of town, through a locked gate (a key being kept at a residence in the township). The owner of the forest has, however, expressed concerns about liability should any injuries occur from falling/fallen trees during such emergency egress.

Mr and Mrs Gibbs indicated that there are vulnerable members in the community, namely those who are elderly and do not have 4WD vehicles.

Although these latter are emergency management considerations, alleviating the flooding risk in the township will increase its resilience, making both evacuation and isolation less likely.

# 3 Proposed Solutions

Table 1 indicates proposed solutions for the issues identified above, as well as suggesting the organisation or department to be responsible.

Issue	Solution	Responsibility
1. Novaflow performance	<ul> <li>A. Inspect Novaflow.</li> <li>B. Clear or clean out Novaflow as required.</li> <li>C. Replace sections of Novaflow as necessary.</li> </ul>	RDC Utilities
2. Sumps	<ul><li>A. Uncover sumps where necessary.</li><li>B. Clean out sumps as required.</li></ul>	RDC Roading
3. Culverts	A. Clean out blocked culverts as required.	RDC Utilities RDC Roading
4. Roa <b>d</b> side drains clogge <b>d</b>	A. Clear drains as required.	RDC Roading

### Table 1: Proposed Solutions

Issue	Solution	Responsibility
5. Roadside drains end	A. Investigate suitable receiving environment.	RDC Roading
6. Open drain blocked	<ul> <li>A. Have drain cleared.</li> <li>B. Have bridges removed.</li> <li>C. If bridges required, replace with smaller number having adequate culvert dimensions.</li> </ul>	See below
7. Open drain private	A. Take on ownership of drain by negotiation with current owners.	RDC Utilities
8. Flap valves closing	<ul> <li>A. Either install permanent pumps on township side of each flap valve,</li> <li>OR make a dedicated pump permanently available at the Scotts Ferry Fire Station.</li> </ul>	Horizo <b>n</b> s Fire and Emerge <b>n</b> cy NZ
10. River bed accreting	A. Discuss solution with Horizons Harbourmaster.	RDC Utilities Horizo <b>n</b> s
11. Levels	<ul> <li>A. If necessary, re-grade drains.</li> <li>B. Discuss with Horizons whether flap valve levels can be altered.</li> </ul>	RDC Roading RDC Utilities Horizo <b>n</b> s

# 4 Recommendations

- 1. That the report 'Scotts Ferry Stormwater' dated 8 August 2017 be received.
- 2. That the Bulls Community Committee indicate which drainage improvement works are preferred, and requests that the Rangitikei District Council consider prioritising these works for completion as part of the 2017/18 work programme.

David Rei Miller Asset Engineer Glenn You**n**g Utilities Manager

# Appendix 1 – Photos

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Photo 1: Example of Ponding on Berm



Photo 2: Sump with Detritus



Photo 3: Overgrown Culvert



Photo 4: Overgrown Roadside Drain



Photo 5: Full Roadside Drain



Photo 6: Open Drain



Photo 7: Closed Flap Valve (River Side)



Photo 8: Drain Blocked by Flap Valve (Town Side)







http://intranet/RDCDoc/Council-Services/SW/stcatch/REPORT - Scotts Ferry Stormwater - David Rei Miller - 2017-08-08.docx 7 - 7