

CARTERTON
DISTRICT COUNCIL

Infrastructure & Services Committee Meeting

Wednesday

7 June 2017

Committee Members: Councillor's M Ashby, J Greathead, R Keys, B Deller and Mayor Booth.



CARTERTON
DISTRICT COUNCIL

AGENDA

The Agenda of the Infrastructure and Services Committee Meeting of the Carterton District Council to be held at the Hurunui o Rangi Meeting Room, Carterton Event Centre, Carterton on Wednesday 7 June at 9.30am.

1. Apologies
2. Conflict of Interest Declaration
3. Public Forum
4. Notification of General Business / Late Items
5. Government Inquiry into Havelock North Drinking Water - *page 1 - 18*
6. Roading Report - *page 19 - 26*
7. Operations Report - *page 27 - 28*
8. Parks and Reserves Report - *page 29 - 30*
9. General Business/Late Items
10. Confirmation of the Minutes - *page 31 - 32*
 - 10.1 Minutes of the Infrastructure and Services meeting held on 26 April 2017.
11. Matters Arising from Minutes

Brian McWilliams
Parks and Reserves Manager



28 May 2017

Government Inquiry into Havelock North Drinking Water

1. PURPOSE OF THE REPORT

For the Committee to receive an update on the Government Inquiry into Havelock North Drinking Water.

2. SIGNIFICANCE

The matters for decision in this report are not considered to be of significance under the Council's Significance and Engagement Policy.

3. BACKGROUND

In August 2016, an outbreak of gastroenteritis occurred in Havelock North. Over 1,000 gastroenteritis cases were notified to the District Health Board. It estimates that many more people became ill, and that around 5,500 people were affected. This is just under 40 per cent of Havelock North residents.

The outbreak was traced to faecal contamination of water supplied by two bores.

The scale of the outbreak, and the issues it raised in relation to the need for safe drinking water, resulted in the Government setting up an inquiry under the Inquiries Act 2013. Under its Terms of Reference the Inquiry will be investigating, reporting on, and providing recommendations on:

- (a) The cause(s) of the outbreak;*
- (b) Whether any person or organisation was at fault or failed to meet required standards;*
- (c) The adequacy and appropriateness of responses by all relevant parties to the outbreak;*
- (d) The adequacy of the management of drinking water supplies for Havelock North, the implementation of the Drinking-water Standards, contingency*

planning, preparedness and the responses of local and central government agencies, and any other relevant parties;

- (e) Any legal or regulatory changes or additions necessary and desirable to prevent or minimise similar incidents;*
- (f) Any changes or additions to operational practices for monitoring, testing, reporting on and management of drinking water supplies, implementation of Drinking-water Standards, contingency planning and responses by local and central government, to address the lessons from this incident; and*
- (g) Any other matters which the Inquiry believes may promote the safety of drinking water and/or prevent the recurrence of similar incidents.*

4. STAGE 1 REPORT

On 10 May 2017 the Inquiry's Stage 1 report was released. This report essentially focuses on what occurred and why. The key findings and highlights sections of the report are in **Attachment 1**.

5. STAGE 2 REPORT

The second stage of the Inquiry will address more systematic issues with current water supplies. It will focus on lesson learned from the Havelock North failure and will make recommendations. It is likely that the outcome of Stage 2 will have ramifications for the wider sector. Local Government New Zealand has registered to participate in Stage 2 of the Inquiry and will be representing local government's interests as the recommendations are developed.

The Inquiry expects to release its Stage 2 Report by Christmas.

6. CARTERTON'S WATER SUPPLY

The Carterton town is supplied with drinking water from a surface take on the Kaipaitangata Stream and a supplementary supply from bores located on Frederick Street. A number of the Inquiry's key findings in the Stage 1 Report are directly relevant to Carterton's water supply – both surface and bores. The findings reinforce the importance of having appropriate systems in place. Below is a brief summary of the Carterton current systems and their safety assessment.

6.1 Water Safety Plan

Our Water Safety Plan was prepared by Jim Graham who is an Environmental Scientist from OPUS. We engaged him in 2016 to prepare our plan on the basis of his very good reputation and the trust the District Health Board (DHB) has in his technical knowledge and experience.

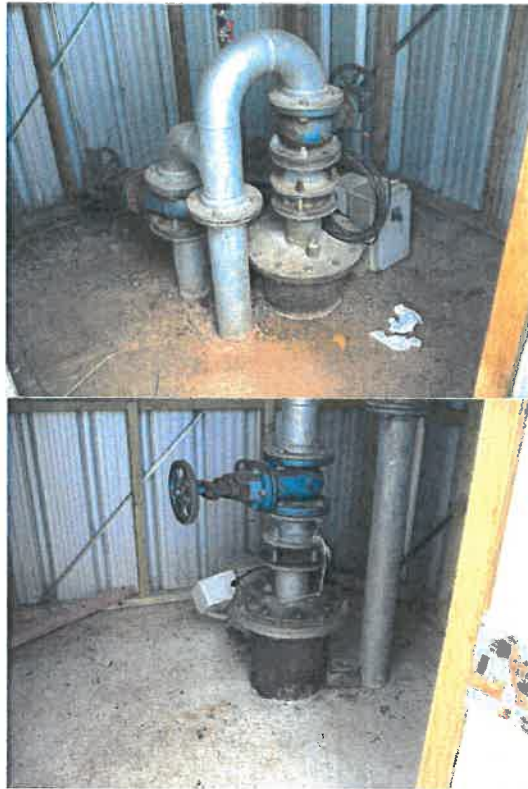
The Water Safety Plan is thorough, easy to understand and user friendly. Copies are held on site at our water supply plants. Both operators and the Operation Manager also have copies of plan.

We have developed a very good relationship with the DHB, who approves our plan. Our current plan was approved in January 2017.

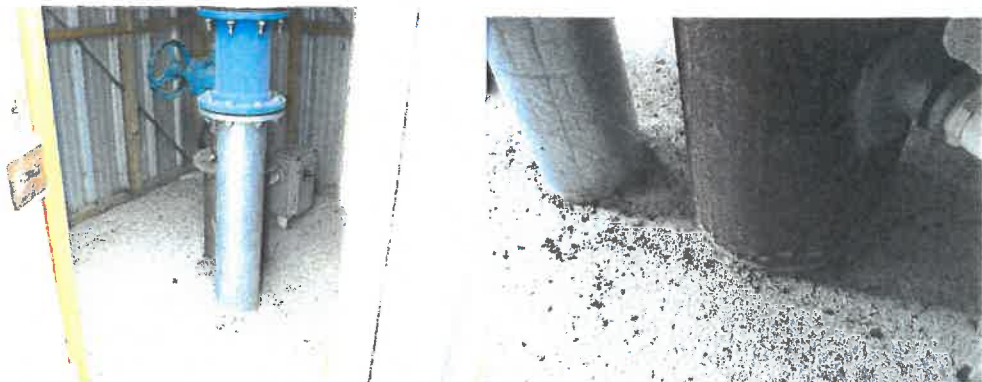
6.2 Safety of the bores

Poor bore security was found to be a factor in the Havelock North failure.

Opus Consultants were asked to undertake an assessment of the Carterton bores in 2016 for compliance with the Drinking Water Standards for New Zealand. The report concluded that the bores meet the standards, and are therefore secure. The bore heads are above ground, sealed and are surrounded by concrete and fenced to prevent any stock or other access. See photos below.



Bore heads one (left) and two (right)



Bore heads three (left) and four, showing seal (right)

The report's conclusion is:

"It is concluded that the Frederick Street bores meet the requirements of the DWSNZ, Section 4.5.2.2 Bore water security criterion 2: bore head must provide satisfactory protection because the bore heads are sealed at the surface to prevent the ingress of surface water and contaminants and the casings do not allow ingress of shallow groundwater. Animals are excluded from within five metres of each bore head. The bores have also been constructed in compliance with the environmental standard for drilling soil and rock (NZS4411 Standards New Zealand (2001))."

6.3 Treatment Systems

There are a number of treatment systems in place that address contamination risks. These are summarised below.

a. Bushed stream catchment with selective abstraction

The bushed stream catchment with selective abstraction provides water with low microbiological contamination load providing a partial barrier to microbiological contamination.

b. Filtration

Filtration processes at the Kaipaitangata treatment plant removes particulate material and some microbiological contaminants providing a partial barrier to microbiological contamination.



Pressure media filters (left) and bag filters (right)

c. UV disinfection

UV disinfection at both treatment plants inactivates micro-organisms providing a barrier to microbiological contamination.



Frederick Street UV unit

d. Chlorination

Chlorination at both treatment plants provides disinfection for bacterial and viral contaminants providing a barrier to bacterial and viral contaminants throughout the system.



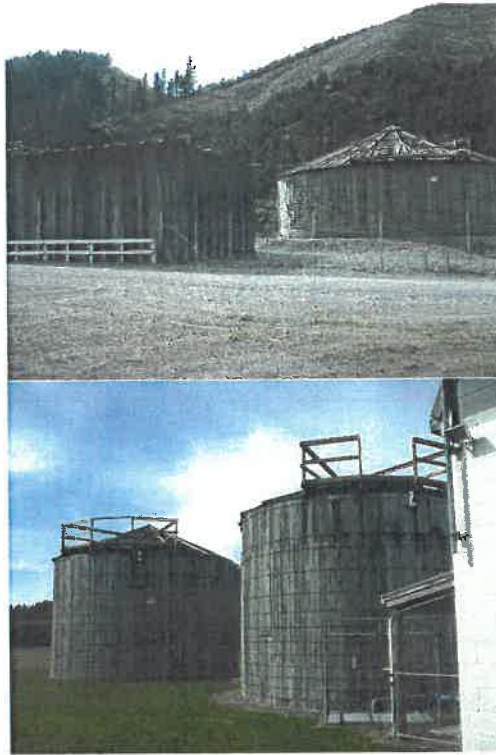
Kaipaitangata gas chlorine

e. Groundwater source

Groundwater at the Frederick Street bores provides water of good microbiological quality providing a partial barrier to microbiological contamination.

f. Prevention of contamination of treated water in storage

All the storage reservoirs in the supply are covered to prevent unauthorised access, ingress of rainwater or contaminants, and to exclude birds and vermin. This provides a partial barrier against recontamination of water following treatment.



Kaipaitangata (left) and Frederick Street treated water storage

g. Prevention of contamination of treated water while it is in the network reticulation

The following measures contribute to provision of a barrier against recontamination of water following treatment:

- Chlorine dosing is done at a level to ensure it is available to protect the water against microbiological contamination throughout the storage and reticulation.
- Hygiene procedures are documented and followed for all distribution system maintenance.
- Operators of the reticulation are experienced and familiar with hygiene requirements around maintenance of the pipe network.
- Backflow programme and flushing programme are in place.

6.4 Monitoring systems

The Council has an online telemetry system which constantly monitors levels of chlorine, pH and turbidity at both the Kaipaitangata intake and the bores. The telemetry system automatically sends out text alarms to the Plant Operators and the Operations Manager when low or high level ranges are reached and in some circumstances automatically shuts down the plant. Plant operators also take manual samples on a daily basis, and regularly calibrate the equipment to ensure compliance with the Drinking Water Standards 2005/08.

In addition to the above, the Council's Environmental Health Officer carries out a programmed sampling regime to meet the Drinking Water Standards 2005/08. These samples are sent to ELS Laboratories for testing.

6.5 Operator qualifications

We have two qualified Water Plant Operators with Level 4 Water Treatment Qualifications. This qualification is designed for front line operators and establishes them as suitably qualified to operate an urban water supply system, as required by the Drinking Water Standards. We are currently looking at having a third qualified person.

Our currently qualified operators are Selwyn Osborne (Team Leader Water Reticulation) and Phill Maybury (Water Plant Operator).

Our documented Standard Operating Procedures are in the process of being updated by our operators.

6.6 Emergency response/contingency plan

Hastings District Council was criticised by the Inquiry for having shortfalls in their contingency planning.

We have a Contingency Plan which is part of our Water Safety Plan. Our plan provides for us to switch between the bores and Kaipaitangata-sourced water immediately an issue arises; sets out the sampling regime; and sets out an alert system within the operating team and DHB.

We get an alert from ELS Laboratories if we have provided a contaminated sample. We have strict procedures to carry out quickly and efficiently to solve the problem. These procedures are in the Water Safety Plan.

We currently do not have pre-prepared boil water notices or a communications plan (although a communications protocol was developed in response to the two recent weather events that would be used in the event of a water supply contamination). The Inquiry identified these as a good practice. We will add these two elements to our emergency response plan.

6.7 Relationship with the Regional Council

One of the major criticisms of the Councils involved with the Havelock North incident was the poor relationship between the councils.

Carterton District Council has a good working relationship with Greater Wellington Regional Council. For example, in the recent adverse weather event that resulted in damage to the Kaipaitangata water intake Regional Council compliance officers worked constructively with the water supply team to address compliance issues.

We meet regularly (at least monthly) with the Greater Wellington Regional Council compliance officers and proactively discuss potential consenting and compliance issues.

7. FUTURE REPORTING

Officers will report to the Audit and Risk Committee in September about the on-going water supply operations and associated risks, as part of the Council's risk management framework.

As the Havelock North Inquiry progresses, any relevant matters will be reported to this Committee and/or the Council. When the Stage Two report is released this will be provided to the Committee, with advice on any implications for the Carterton supply.

8. RECOMMENDATION

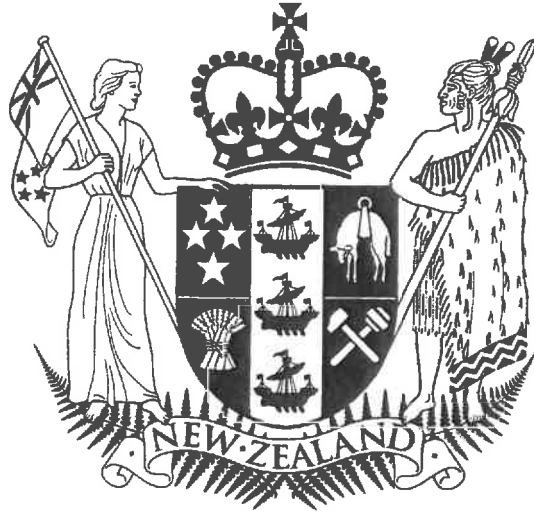
That the Committee:

1. **Receives** the report.
2. **Notes** the Havelock North Drinking Water Inquiry findings to date.
3. **Notes** the current management systems in place for the Carterton supply and compliance with the Water Safety Standards for New Zealand.
4. **Notes** the Committee/Council will receive further information following the publication of the Inquiry's Stage 2 Report.

Garry Baker
Operations Manager

Jane Davis
Chief Executive

Attachment 1: Government Inquiry into Havelock North Drinking Water Stage 1 Report, Key Findings and Highlights



REPORT OF THE HAVELOCK NORTH DRINKING WATER INQUIRY: STAGE 1

MAY 2017

SECTION ONE: INTRODUCTION AND CONTEXT

PART 1 – OVERVIEW, KEY FINDINGS AND HIGHLIGHTS

Introduction

[1] Safe drinking water is crucial to public health. The outbreak of gastroenteritis in Havelock North in August 2016 shook public confidence in this fundamental service. Some 5,500 of the town's 14,000 residents were estimated to have become ill with campylobacteriosis. Some 45 were subsequently hospitalised. It is possible that the outbreak contributed to three deaths, and an unknown number of residents continue to suffer health complications.

[2] The August 2016 outbreak was traced to contamination of the drinking water supplied by two bores in Brookvale Road, on the outskirts of Havelock North. This raised serious questions about the safety and security of New Zealand's drinking water.

[3] Accordingly, in September 2016, the Government established this Inquiry into the outbreak. The Inquiry has proceeded in two stages. This report, on Stage 1 of the Inquiry, focuses on identifying what happened, what caused the outbreak, and assessing the conduct of those responsible for providing safe drinking water to Havelock North. Stage 2 of the Inquiry will address lessons learned for the future and steps to be implemented to reduce the likelihood of such an outbreak occurring again.

Overview

[4] Hastings District Council ("District Council") supplies drinking water to consumers in Havelock North. The drinking water is sourced from an aquifer under the Heretaunga Plains (the Te Mata aquifer). The Te Mata aquifer was thought to be a confined aquifer and the water secure from contaminants and, as such, the District Council did not treat water drawn from it. Brookvale Road bores 1 and 2 were used to access the water from the aquifer and to pump it into the reticulation system, through which it was delivered to consumers.

[5] To be deemed safe, the drinking water needed to meet the requirements of the Drinking-water Standards for New Zealand 2005 (revised 2008) ("Drinking-water Standards"). Drinking-water Assessors ("DWAs") worked with the District Council to monitor compliance with those standards and to ensure the safety of drinking water.

[6] But, as this Inquiry has shown, meeting the Drinking-water Standards was only part of the story. Where the water source was an aquifer, the delivery of safe drinking water to consumers was dependent on the security of the source from contaminants. It was also dependent upon the water supplier being aware of and managing the risks of contamination of the water supply, and competent local authority administration of the broader resource management regime.

[7] This Inquiry has found that several of the parties with responsibility for the water supply regime for Havelock North (in particular the District Council, DWAs and Hawke's Bay Regional Council ("Regional Council")) failed to adhere to the high levels of care and diligence necessary to protect public health and to avoid outbreaks of serious illness. A higher standard of care needed to be embraced, akin to that applied in the fields of medicine and aviation where the consequences of a failure could similarly be illness, injury or death.

[8] The failings by those with responsibility for a safe water supply are summarised in the key findings section below. The Inquiry has found that none of the faults, omissions or breaches of standards directly caused the outbreak. However, had all or any of these failures not occurred, a different outcome may have resulted. It is generally accepted by those responsible for these failings that greater diligence and co-operation is needed to ensure that a much higher standard of care is reached, and soon.

[9] Responses to the August 2016 outbreak were generally well handled, particularly by the Hawke's Bay District Health Board ("District Health Board"). There were, however, significant gaps in readiness, such as the District Council's lack of an Emergency Response Plan, draft boil water notices, and up-to-date contact lists for vulnerable individuals, schools, and childcare centres.

Key Findings

[10] The Inquiry has made the following key findings:

- (a) Contaminated drinking water was the source of the campylobacter bacterium that caused the gastrointestinal illness campylobacteriosis among Havelock North residents in August 2016. Sheep faeces were the likely source of the campylobacter.

- (b) It is highly likely that heavy rain inundated paddocks neighbouring Brookvale Road causing contaminated water to flow into a pond about 90 metres from Brookvale Road bore 1. On 5 and 6 August 2016, water in the pond entered the aquifer and flowed across to Brookvale Road bore 1 where the bore pump drew contaminated water through the bore and into the reticulation system.
- (c) Contamination may also have occurred when water from neighbouring paddocks entered roadside drains adjacent to Brookvale Road bores 1 and/or 2 and then entered the bore chambers. If sufficient water had entered the chambers, it could have risen to a level where it overtopped the bore head cable holes and, because the cable seals were loose, travelled down the cables into the water supply. This scenario is regarded as much less likely than travel from the pond to the bore via the aquifer, as described above.
- (d) The failings, most notably by the Regional Council and the District Council, did not directly cause the outbreak, although a different outcome may have occurred in their absence.
- (e) The Regional Council failed to meet its responsibilities, as set out in the Resource Management Act 1991 ("RMA"), to act as guardian of the aquifers under the Heretaunga Plains. Protection of the water source, in this case the aquifer, was the first and a critical step in the multi-barrier approach to ensuring safe drinking water.
- (f) The Regional Council's knowledge and awareness of aquifer and catchment contamination risks near Brookvale Road fell below required standards. It failed to take specific and effective steps to assess the risks of contamination to the Te Mata aquifer near Brookvale Road and the attendant risks to drinking water-safety. This included through its resource consent processes; its management of the many uncapped or disused bores in the vicinity; its State of the Environment and resource consent monitoring work; and its liaison with the District Council.
- (g) The Regional Council imposed a generic condition on the water take permits it granted to the District Council, related to the safe and serviceable state of the Brookvale Road bores. This condition failed to meet the necessary standard. It then failed adequately to monitor compliance with the conditions of the permits.

- (h) The District Council did not embrace or implement the high standard of care required of a public drinking-water supplier, particularly in light of its experience of a similar outbreak in 1998, and the significant history of transgressions (positive E.coli test results). As a consequence, it made key omissions, including in its assessment of risks to the drinking water supply, and it breached the Drinking-water Standards.
- (i) The District Council's failings applied especially to its mid-level managers, who delegated tasks but did not adequately supervise or ensure their implementation. This caused unacceptable delays to the preparation of a Water Safety Plan, which was fundamental in addressing the risks of an outbreak of this nature.
- (j) The District Council did not properly manage the maintenance of plant equipment or keep records of that work; and it carried out little or no supervision of necessary follow-up work. Specifically, it was slow to obtain a report on bore head security, a key plank in source water security, and it did not promptly carry out recommended improvements.
- (k) There was a critical lack of collaboration and liaison between the Regional Council and the District Council. The strained nature of this relationship, together with an absence of regular and meaningful cooperation, resulted in a number of missed opportunities that may have prevented the outbreak.
- (l) The DWAs were too hands-off in applying the Drinking-water Standards. They should have been stricter in ensuring the District Council complied with its responsibilities, such as having an Emergency Response Plan and meeting the responsibilities of its Water Safety Plans.
- (m) The DWAs failed to press the District Council sufficiently about the lack of risk assessment, analysis of key aquifer catchment risks, including the link between the Brookvale Road bores and the nearby pond, and a meaningful working relationship between it and the Regional Council. They also failed to require a deeper and more holistic investigation into the unusually high rate of transgressions in the Havelock North and Hastings reticulation systems.

- (n) Contingency planning by the District Council was lacking. The District Council had no Contingency Plan (referred to in various contexts also as an Emergency Response Plan), draft boil water notices, or communications plans at the ready.
- (o) Consultancy firm MWH New Zealand Ltd (“MWH”), a technical adviser to the District Council, failed competently to assess and report on the security of the bore heads of Brookvale Road bores 1 and 2.

Highlights

[11] Five key highlights emerged from Stage 1 of the Inquiry, which are usefully outlined before turning to the substantive sections of the report.

1998 Outbreak

[12] The Inquiry has found that the August 2016 outbreak was not Havelock North’s first experience of drinking water contamination and that the lessons that should have been learned from an earlier contamination had been forgotten.

[13] In July 1998 the town had an outbreak of campylobacteriosis. Sampling of two of the Brookvale Road bores showed campylobacter in the bore heads. This was the same location that would feature in the August 2016 outbreak. An independent report by Stu Clark (“1998 Clark Report”) concluded that the two bores were a possible source of the campylobacteriosis, and that the likely point of entry for contaminated surface water was a leaking power supply cable gland.¹ The Clark Report raised doubts about the confined status of the Te Mata aquifer from which the bores drew water.² It recommended testing the aquifer to establish whether it was confined, along with measures to ensure the security of both bore heads.

[14] Regrettably, while the two outbreaks shared remarkable similarities, it appears nothing was learned from the July 1998 outbreak. The District Council, as the water supplier, did not take the 1998 outbreak seriously enough and implement enduring, systemic changes. Memory of the earlier outbreak simply faded.

¹ Stu Clark “Hastings District Council Water Supply Contamination Investigation” (13 September 1998). This report is document **CB048** of the “Core Bundle of Documents” and is accessible on the Inquiry website (<https://www.dia.govt.nz/Core-bundle-documents>).

² A confined aquifer is protected by a layer or layers of impermeable material.

Aquifer Not Confined

[15] The Inquiry has found that the Te Mata aquifer, from which the Brookvale Road bores drew water, was vulnerable to contamination. The aquifer was not confined (as was assumed prior to the Inquiry's process). At best, it might have been characterised as "semi-confined", meaning its water was subject to surface influences and was vulnerable to penetrations of its rather thin and variable confining layer.

[16] The Inquiry found that near the Brookvale Road bores, the aquifer had been penetrated by a significant number of disused or uncapped bores, leaving it vulnerable to entry from contaminated water. Additionally, the confining layer (or aquitard) near Brookvale Road bore 3 had been affected by earthworks at the neighbouring Te Mata Mushrooms property, leaving it vulnerable to entry by contaminated water.

[17] The Te Mata aquifer is also no longer a source of aged water, meaning it is not a secure source of drinking water.³

[18] These facts have critical implications in terms of the compliance of the water supply with the Drinking-water Standards. The Inquiry's finding of a likely direct causal link between the pond and entry of contaminated water into the Havelock North drinking water system does not detract from these concerns. Until the security of the water source and the bores can be assured (and that may never happen), in the Inquiry's view, treatment of the water in Havelock North and Hastings is the only option.

High Transgression History

[19] The Inquiry has found that in recent years the Havelock North water supply had a relatively high number of positive E.coli readings, or "transgressions". The Hastings supply has also had a high number of positive E.coli readings. The Hastings water supply is drawn from nine bores at five locations in Hastings and Flaxmere. These bores also draw from part of the Heretaunga Plains aquifer system. There is a known "unconfined aquifer zone" close to Portsmouth and Wilson roads. Recent positive E.coli readings from the Hastings bores have

³ A report in August 2016 by GNS found water from three of the bores in the area (Omahu and Wilson roads in Hastings and Brookvale Road bore 1 in Havelock North) contained water less than a year old: GNS "Groundwater Residence Time Assessment of Hastings District Council Water Supply Wells in the Context of the Drinking-water Standards for New Zealand" (2016) (CB081).

resulted in a downgraded bore status for most Hastings bores under the Drinking-water Standards. This in turn has required chlorination of the Hastings supply.

[20] The Inquiry has found that the District Council tended to underestimate the significance of positive E.coli results. It sometimes ended treatment of water before clearly establishing the contamination source. While such an approach (after three subsequent clear test readings) technically meets the Drinking-water Standards, a more rigorous approach was needed with public safety at stake.

Poor Working Relationships

[21] The Inquiry has found that the Regional Council and the District Council did not work effectively and constructively together. This was at variance with the Ministry of Health's Guidelines for Drinking-water Quality Management for New Zealand ("Drinking-water Guidelines"), which required "maximum interaction and mutual support between the various stakeholders". Indeed, it is fair to say the relationship between the two local authorities before August 2016 was dysfunctional.

[22] While the lack of collaboration may not have contributed directly to the outbreak, at the very least it resulted in a number of missed opportunities. The uptake of such opportunities might well have prevented the outbreak.

[23] The relationship between the two Councils deteriorated further when, following the 2016 outbreak, the Regional Council began investigating the District Council's Brookvale Road bores. Subsequently, the Regional Council filed a criminal prosecution against the District Council on 18 November 2016, which led to a lengthy delay in the Inquiry's work. In the Inquiry's view, such a proceeding was ill-advised and ought never to have been launched.

[24] On the evidence the Inquiry heard, the prosecution, based on proof to the criminal standard, was bound to fail. It was eventually dropped and replaced with two infringement notices. The money the Regional Council spent investigating the case, reportedly \$450,000, could have been more wisely applied to gaining a better understanding of the status of the aquifers beneath the Heretaunga Plains.

[25] The two authorities were subsequently induced to partner with the District Health Board and the DWAs to form a Joint Working Group focused on providing clean, safe drinking water for Havelock North and Hastings. This group, guided by recommendations from the

Inquiry's interim measures hearing in December 2016, is making promising progress under an independent Chair. Its reports and action plans are available on the Inquiry website. Much work, however, remains to be done.

[26] The Joint Working Group's mandate and progress will be dealt with in Stage 2 when the Inquiry examines systemic issues and makes recommendations about managing water supply nationally. This approach may provide a blueprint for collaboration elsewhere. No structural or legislative changes are needed for the Group's operation, although the question of whether a regulatory framework should be developed will be part of the next stage.

Protozoa Risk

[27] The Inquiry has found that campylobacter was the cause of the illnesses in Havelock North. Nevertheless, where diarrhoea and vomiting symptoms are involved, the possibility of protozoan pathogens, such as cryptosporidium or giardia, cannot be ruled out without careful testing. The response to the outbreak did not sufficiently consider this risk.

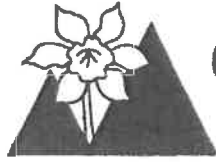
[28] The Inquiry has learned that a number of the major outbreaks of waterborne illness overseas have involved cryptosporidiosis, for example Western Georgia in 1987, Milwaukee in 1993, and Northern Ireland in 2002. Waterborne protozoa outbreaks have also occurred in New Zealand in Masterton in 2003; the Waikato District in 1997; and the Tauranga District in 1995. Giardia outbreaks have been recorded in Deniston in 1996, Auckland in 1993, and Dunedin in 1991. A table of waterborne outbreaks is at **Appendix 7** (page 192).

[29] Some managers at the District Council in the present case seemed to have little or no knowledge about protozoan pathogens and the significant risks associated with them. Gaining an awareness of, and education about, such risks (and how they might be identified at an early stage) will be an important part of Stage 2. The Annual Report on Drinking-water Quality 2015-2016⁴ states that achievement of protozoal standards was at a level of only 82 per cent across the whole population covered by the report. While this represented a 2 per cent improvement over the previous year, protozoal achievement is still well below optimum.

[30] The risks associated with waterborne diseases in New Zealand are well recognised. The Drinking-water Guidelines emphasise that "untreated drinking water contaminated with pathogens presents a significant risk to human health". Such risk suggests it is vital that this

⁴ CB192.

time lessons must be permanently learned from the Havelock North campylobacteriosis outbreak.



7 June 2017

Roading Update

1. PURPOSE

The purpose of this paper is to update and inform the committee members on roading matters to the 7 June 2017.

2. SIGNIFICANCE

The matters for decision in this report are not considered to be of significance under the Significance and Engagement Policy.

3. ACTIVITIES UPDATE

3.1. Ponatahi Culvert

Work is now complete and the contractor is required to maintain the works for 12 months.

3.2. Hinau Gully Bridge redeck

The contract has been awarded to Concrete Structures Ltd, with works due to start in August 2017.

3.3. Stubs Lane

All owners have indicated a willingness to share costs. Tenders have been received from the two local contractors. The owners will now be given a firm price for the work and be asked to confirm their acceptance.

4. CHARLES STREET

4.1. Concerns raised by residents

Residents of Charles Street have contacted the Council, concerned about speeding on the street, including by 'boy racers'. These residents are concerned about noise as well as safety. The residents have a baby, and they note some of their neighbours also have young children.

The Police have been called and notified of the 'boy racer' situation. The residents have asked whether the Council can do to anything to limit speeding vehicles. They have now suggested speed bumps in the street.

4.2. Options to address concerns

Speeding vehicles is a problem that occurs on several of the roads in Carterton from time to time. Speed humps are generally not favoured in residential areas due to the noise factor. There are measures that could be constructed to slow vehicles, such as chicanes. However any traffic calming measures would need to be looked at as an overall area-wide treatment, providing consistency across town. A concern with chicanes is that they can be seen as a challenge and encourage speeding.

It would be appropriate for the Council to undertake an investigation into speeding in the town, including monitoring of the speeds. We anticipate this is likely to show that most vehicles travel within the speed limit, and only few exceed the limit.

Should any areas be identified as being especially problematic suitable traffic engineering solutions could be investigated. Such measures are likely to cost in the order of \$100,000 or greater per road.

It is recommended in the first instance an investigation of the speeding issues in the town be initiated so that the problem can be quantified. This can be reported back to the Committee for a decision on the next action required, if any.

5. HUGHES LINE

5.1. Concerns raised by residents

Some residents of Hughes Line have recently contacted the Council concerned about the use of the road as a diversion for traffic when the State Highway is closed. In early May there was a diversion onto Hughes Line following a crash on the highway which lasted more than three hours. The residents are concerned that the narrow width of the road makes it unsafe for the volumes of two-way traffic experienced in those situations.

The residents are seeking the Council's support to widen Hughes Line so that the road can safely cope with two way traffic.

The narrow width of the road and its ability to accommodate diverted traffic has been raised in the past. The residents believe that the safety issues have now reached danger levels. In addition to this, the residents are concerned about the edges of the road which are damaged by heavy vehicles forced to move on to grass verges by oncoming traffic.

During the early May event there was an incident on Hughes Line where a vehicle hit a roadside culvert in attempts to stay clear of oncoming traffic. The vehicle had both left hand tyres blown out as a result of the impact. This incident occurred in the middle of Hughes Line and left two cars stranded on a driveway just off the road. The residents have said this created a significant traffic hazard as there were three vehicles across the road at that point. One resident said *"I personally attended this incident and was shocked to find just how much danger the vehicle driver and passengers were in trying to get off the carriage way in their attempts to avoid the congested flow at "5 o'clock rush hour". It was a seriously dangerous situation."*

The residents have asked the Council to widen the road. They have also suggested that incorporating a cycleway alongside the road widening road widening be considered, with this becoming part of the National Cycleway between Carterton and Masterton.

5.2. Assessment of Hughes Line issues

Hughes Line is 5m wide for the majority of the length between East Taratahi and the main road. On the day of the incident that triggered the letter from the residents, the Police detoured traffic along East Taratahi/Hughes Line. The detour was put in place by Capital Journeys (NZTA).

After about two hours the diverted traffic was split so that one lane was diverted along Chester Road, which greatly reduced the problem on Hughes Line. This was the result of a complaint to the Police from a member of the public and follow-up from the Council's Fulton Hogan maintenance crew.

At 5m wide and with the volume of traffic that is likely from the State Highway, the vehicles will drive with the outside wheels off the seal. This results in rutting of the shoulder and potholes forming. Of note is that East Taratahi Rd is 6.5m wide and suffered no damage.

The road was inspected on the morning after the incident and initial repairs carried out to fill the pot holes along the shoulder. Further repairs to the berms were carried out the following week.

As noted above, there was one minor accident during the last diversion. In the past 10 years there has been only one lost control accident recorded along this section of Hughes Line. Officers believe there would likely have been some other vehicle damage due the potholes along the shoulder during the diversion.

5.3. Options for addressing the issues

Options available to the Council to address the issues with using Hughes Line as a diversion are:

- Do minimum – encourage better management of diversions and continue to repair following a diversion
- As above, but begin a programme to extend the culverts and enhance the repairs to strengthen the shoulders where damage occurs
- Fully fund the seal widening.

Fully fund the seal widening

An approximate cost to widen Hughes Line to 6.5m is \$450,000 which includes extending culverts to accommodate the widening. The cost to complete the repair from the last incident is in the order of \$3,000. The frequency of these diversions is 2-3 per year. The cost of widening is difficult to justify, and would be unlikely to qualify for a NZTA subsidy (i.e. the Council would have to fund the full cost of the improvements).

This is not a recommended option.

Manage diversions

The Police do not notify the Council when diversions are needed. However, in the past the Council has encouraged the splitting of any diversion using both Hughes and Chester Rd. Officers will discuss the diversion issues with the Police and NZTA to again require that both Chester Road and Hughes Line are used when diversions are necessary.

Programme to extend the culverts and enhance the repairs to strengthen the shoulders where damage occurs

Over the years the shoulders have been partially strengthened by way of the repairs following a diversion. However, this is not consistent along the full length. The extent of damage is very dependent on weather at the time. If the ground is wet the shoulders are more prone to being damaged.

Continuing to carry out progressive improvements as work is required is a cost-effective option. Officers recommend this option, and working with the Police and NZTA to better manage diversions.

6. PARK ROAD SPEED LIMITS

6.1. Concerns raised by residents

The Council has received a letter of concern about the speed limits on Park Road. It has been pointed out to us that a lot of pedestrians and cyclists use Park Road heading toward Rutland Road. It has been observed that many vehicles heading west along Park Road are exceeding the 50km/hour posted speed limit as they travel out of the 100km/hour zone and not slowing down to 50km/hr until close to the State Highway roundabout.

According to the concerned residents, the 50km/hour speed-limit sign placement is *"inconsistent with other busy "secondary" roads. I.e. Moreton Road has its 50km/hr sign still in the countryside, past the Premier Bacon factory, and Belvedere's 70km/hr sign is also well in the hinterland. Even Richmond Road (non-secondary) has a 70km/hr sign out in the country only 50 metres from Rutland Road intersection."*

It has been suggested that Park Road's 50km/hour speed sign be moved to very close to the Rutland Road intersection, and a further sign 300m out advising 'Urban Area, please reduce speed now!', or a 70km/hr sign (consistent with Belvedere Road signage).

6.2. Assessment of the options

The option of moving the speed limit signage was looked at several years ago under the then current Speed Limits Rules, and it was decided to leave it as is, but with the addition of the advance warning signs. This was because changing the speed limit without changing the environment will only lead to a high level of non-compliance.

If development of the town extends east to Rutland Road this would change the environment and enable lower speeds to be set. It is therefore recommended that no changes be made to the posted speed limits at this time. This issue of traffic management and speed limits will be considered as part of the Council's Urban Growth Strategy development.

7. RUTLAND ROAD

Concerns have also been raised about speeds on Rutland Road. Locals believe it has now become “*the de facto town bypass and racing strip*”. The concerns relate also to the fact that there are pedestrians, cyclists, runners, horses, dogs being walked, prams being pushed and stock regularly crossing the road.

A safety issue has been raised due to the narrow road width and vehicle speeds, including recent incidents at the intersection with Richmond Road.

It has been suggested Council reduces the speed limit to 70km/hour along the north-eastern part of the road (where it is more built-up); installs speed limiting treatments (ie. narrow sections, a couple of speed bumps ; and changes the configuration at the Richmond Road/Rutland Road intersection, by making Richmond Road the "through road" and placing "Stop" or "Give Way" signs on Rutland Road instead. A better long-term measure as an alternative to this has been suggested to widen Rutland Road and develop it for a full bypass (with safety margins).



7.1. Assessment of options

Officers have considered the issues and options. Rutland Road is a 5m wide carriageway within a 10m wide road reserve.

Officers do not recommend a change in priority at Richmond Road as this would require the major road giving way to the minor road. Along with reversing priority comes a risk of increasing the number of accidents, especially in the short/medium term.

A vehicle count taken in 2016 indicated speeds are a mean of 57kph, an 85% of 67kph, and a max of 95kph. The 85th percentile speed is used to represent the speed at which most drivers feel comfortable travelling. No change to the limit is recommended. Widening the road to accommodate full bypass function would change the speed environment and invariably lead to much higher speeds on the road, provide less berm space for pedestrians and/or introduce significant land purchase issues.

8. PARK ROAD/DIXON STREET INTERSECTION

We have received a complaint about vehicles turning right from Park Road onto Dixon Street, which are regularly blindly cutting this corner. This is especially an issue with school drop-offs and pick-ups, and delivery vehicles.

Since the upgrade of Holloway Street Dixon Street has become a popular route for locals and heavy delivery trucks, and traffic volumes are relatively high. As well as the right-turning traffic onto Dixon Street, there are also a high number of traffic movements turning right from Dixon Street onto Park Road.

Traffic islands are a standard solution to these turning issues. This problem occurs to some extent also at the Park Road/Armstrong Avenue intersection. Given the increase in traffic directed along Park Road, and the development in Armstrong Avenue, islands could be constructed at both intersections for an approximate cost of \$12,000. As has been suggested by the person who raised the issue with the Council, a safe pedestrian crossing could be considered as part of the road improvements.

It is recommended that the Council investigates the construction of roundabouts on Park Road, including the consideration of pedestrian crossings.

9. PARK ROAD PEDESTRIANS

A request has been made for Council to consider extending the town footpath on the north-eastern side of Park Road. It has been suggested this be from the present 50km/hour sign for several hundred more metres at very minimal cost. The request is that it be extended as far as practicable, and ideally to within 50 metres of the Park Road / Rutland Road intersection, to provide safe egress for the many pedestrians and cyclists who daily use this section of Park Road.

This section of Park Road consists of a 5.5m wide pavement, with a narrow verge on the southern side, a narrow verge drain and berm on the northern side.

It may be possible to construct a crushed lime path between the drain and the boundary, although the width would only be in the order of 1m, and will require removal of some vegetation. The power poles may also impact on the path.

Officers do not recommend that the path be constructed immediately adjacent to the road carriageway on either verge. The cost for the 350m from the urban boundary to Rutland Rd is in the order of \$20,000.

It is recommended that a pathway is constructed, subject to consideration by the Carterton Walking and Cycling Advisory Group. This is to ensure the footpath is a priority against other footpath projects in the town.

10. PEDESTRIAN FACILITIES CHARLES STREET AND BROOKLYN ROAD

The Council has received a request for enhanced pedestrian access between Charles/Frederick/Philip Streets and Brooklyn Road. The idea is to have a safe pedestrian access to join Charles Street (and the south-western part of Carterton) with the town centre, via quiet and peaceful streets.

The neighbourhood is perceived as quiet but the main pedestrian route to the town centre, High Street, is very noisy for a walk in the stroller. Lincoln Road is identified as being an attractive street but not pedestrian friendly, even dangerous for pedestrians, and not walkable with young children/strollers.

The south-western part of Carterton is home to a growing number of young families. The development of Bird's Park will make this part of town even more attractive. Improving pedestrian access should be investigated. It would be appropriate to refer this matter to the Carterton Walking and Cycling Advisory Group for inclusion in their work to identify new footpaths and cycleways around the town.

11. RECOMMENDATIONS

That the Committee:

1. **Receives** the report.
2. **Requests** officers undertake an investigation of speeding in Carterton, and report back to the Committee on the findings.
3. **Agrees** that Hughes Line be progressively widened as repairs and maintenance is carried out, and **notes** that officers will be working with the Police and NZTA to ensure any diversions from the State Highway in the future use both Chester Road and Hughes Line.
4. **Agrees** to maintain current speed limits and signage on Park Road.
5. **Agrees** to maintain current speed limits on Rutland Road and to maintain the current Rutland Road/Richmond Road intersection arrangements.
6. **Agrees** to investigate the construction of roundabouts on Park Road, including the consideration of pedestrian crossings.

7. **Agrees** to construct the continuation of the pathway along Park Road to the boundary with Rutland Road, subject to consideration by the Carterton Walking and Cycling Advisory Group.
8. **Requests** the Carterton Walking and Cycling Advisory Group consider options to improve pedestrian access between the south-west part of Carterton and the town centre.

Warwick Potts
Roading Engineer

Jane Davis
Chief Executive



30 May 2017

Operations Report May 2017

1. PURPOSE OF REPORT

For the Committee to receive an update on the Operation team's activities, during May 2017.

2. SIGNIFICANCE

The matters for decision in this report are not considered to be of significance under the Council's Significance and Engagement Policy.

3. WATER SUPPLY

3.1 Kaipaitangata Water Supply

Work has been completed on the cleanup operation within the dam area of the Kaipaitangata water supply. Officers are finalising the costs and insurance claims and will report these to the Committee at the meeting.



Dam head wall after new outlet pipes installed.



Looking down into dam, from western end.

4. WASTEWATER

Work is about to commence on the new piping of the wetlands channel at Daleton Farm. Each of the fifteen cells within the wetland will end up with a control valve that can be either decrease or increase the flow to it. This will be used when replanting or carrying out maintenance on the cell.

The shelter belt on Daleton Farm along SH2 has been trimmed. It is amazing how quickly these pines have grown.

The resource consent applications and notice of requirement have been publically notified. Submissions close on the 15th of June.



Pine shelter belt on boundary of Daleton farm and SH2

5. SOLID WASTE

Officers from Masterton, South Wairarapa and Carterton District Councils meet with the preferred tenderer, Earthcare, to negotiate some areas of the contract. A report is due to be presented to the next Council meeting on the 28th of June.

6. WATER MAIN REPLACEMENT

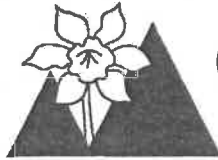
Progress on the new 150mm water main on the eastern side of High Street South is continuing. We had hoped the project would have been finished by the 30th of June. However, delays have meant completion is now likely in July.

7. RECOMMENDATION

That the Committee:

1. **Receives** the report.

Garry Baker
Operations Manager



7 June 2017

Parks and Reserves May 2017 Report

1. PURPOSE OF THE REPORT

To inform the Infrastructure and Services Committee members of activities of the Parks and Reserves team since the previous meeting.

2. SIGNIFICANCE

The matters for decision in this report are not considered to be of significance under the Significance and Engagement Policy.

3. PROGRESS AT CEMETERY

The new road extension in the eastern part of the cemetery is nearly complete. We are waiting for the final chip seal to go down and the road will be complete.

4. NATURAL BURIALS

The natural burials area at Clareville Cemetery will be available for use from the 1st July 2017.

We have invited Mark Blackham, founder of Natural Burials, to come to Carterton on the 16th June to meet with the local funeral directors. This will be our opportunity to explain the process to them and answer any of their questions.

After the meeting with the funeral directors, members of the public have been invited to come along to the Hurunui o Rangi meeting room to listen to Mark and ask any questions they may have.

5. BIRD'S PARK

Now that our annual planting of the town flowerbeds has been completed we can now work on the installation of the lighting, Doggie Doo bins, and seating, etc. at Bird's Park. A neighbourhood planting morning is being organised for the 17th June where neighbours and anyone else wishing to assist with planting in the park can have the opportunity to plant native trees along the eastern and western boundaries. We are awaiting delivery of a few more play equipment items and the bollards for the street frontages.

6. CARRINGTON PARK – BBQ AND SHELTER

Work commenced on the installation of the BBQ and shelter in Carrington Park. This is a joint project with the Carterton Lions and the Carterton District Council, with Lions members doing most of the installation work. The shelter has been installed. Our next task **will** be to install BBQ.

7. KAIPAITANGATA FOREST MULTI-PURPOSE ALL TERRAIN PARK

Now that the felling of trees has been completed at the Kaipaitangata forest, it has allowed us to continue our work with the development of the all-terrain park. We have met with some of the equestrian fraternity and asked if they would be interested in investigating the use of an area within the forestry for horse riding, the same as we have done with the Multisport/Mountain Bike Track. The feedback from our initial talks has been excellent with the equestrian fraternity showing lots of excitement and interest in the concept.

We will continue to have talks with this group and will keep Council involved with our progress.

8. RECOMMENDATIONS

That the Committee:

1. **Receives the report.**

Brian McWilliams
Parks and Reserves Manager

**The minutes of the Infrastructure and Services Committee Meeting
of the Carterton District Council held in the Carterton Fire Station,
High Street, Carterton on Wednesday 26 April 2017 at 9.35am.**

Present: Cr Mike Ashby (Chair)
Mayor John Booth, Deputy Mayor R Keys, Crs B Deller, J Greathead.

Attendance: J Davis (Chief Executive)
D Gittings (Planning and Regulatory Manager)
B McWilliams (Parks and Reserves Manager)
W Potts (Masterton District Council, Roading Programme Management)
S Osborne (Team Leader Treatment and Reticulation)
T Pritchard (Civil / Environmental Engineer)
H Burgess (Executive Assistant)

1. Apologies

There were no apologies for this meeting.

2. Conflict of Interest

There was no conflict of interest declared.

3. Public Forum

There were no speakers for the public forum.

4. Notification of General Business / Late Items

There was no General Business or late items.

5. Roading Report for March / April 2017

Purpose

To update the Committee on roading activities during March and April 2017.

Moved

That the Committee receives the report.

Cr Greathead / Deputy Mayor Keys
CARRIED

Moved

That the Committee endorses the installation of a "Give Way" control sign at the Jervois/Dalefield Roads intersection.

Mayor Booth/Cr Deller
CARRIED

6. Operations Update

Purpose

To update the Committee on the activities during March / April 2017.

Moved

That the Committee receives the report.

Deputy Mayor Keys/Cr Greathead
CARRIED

7. Community Facilities March / April 2017 report.

Purpose

To update the Committee on the Parks and Reserves teams activities since the last meeting.

Moved

That the Committee receives the report.

Crs Greathead/Deller
CARRIED

8. General Business / Late Items

There was no General Business or late items.

9. Confirmation of the minutes

Moved

That the minutes of the Infrastructure and Services Committee Meeting held on Wednesday 15 March 2017 be confirmed.

Mayor Booth/Deputy Mayor Keys
CARRIED

10. Matters Arising from Minutes

There were no matters arising from the minutes from Wednesday 15 March 2017.

The meeting concluded at 10.25am

Minutes confirmed.....

Date.....