24 March 2023

File Ref: OIAP-7-27303

[redacted]

Tēnā koe [redacted]

Request for information 2023-036

I refer to your request for information dated 23 February 2023, which was received by Greater Wellington Regional Council (Greater Wellington) on 23 February 2023. You have requested the following:

> *"A. the number and location of flood warning sites on the headwaters and river of the Waiohine River*
>
> *B. analysis of how they will operated in a 1 in 100 year and 1 in 200 year floods and any flood that could inundate Greytown township*
>
> *C. Dates of Floods of the Waiohine River or any other river that covered any part of Greytown town ship*
>
> *D. the evacuation plans for Greytown township under any flood circumstances in detail"*

Greater Wellington's response follows:

A the number and location of flood warning sites on the headwaters and river of the Waiohine River

There are two flood warning sites for the Waiohine River

- Rainfall at Angle Knob
- River Gauge at Waiohine Gorge

B analysis of how they will operated in a 1 in 100 year and 1 in 200 year floods and any flood that could inundate Greytown township

We have interpreted your question as, "How will Greater Wellington use the gauges to operate in response to a flood that could inundate Greytown?".

The gauges are part of the Greater Wellington network of rainfall and river level gauges. These sites record rainfall and river level data that is automatically transmitted to Greater Wellington's environmental monitoring database. If rainfall intensity or river levels reach the pre-determined thresholds predicted to impact the downstream catchments, our environmental monitoring database triggers automatic alerts to the Duty Flood Response Team who respond in accordance with the Greater Wellington's Flood Response Procedures.

Greater Wellington operates a 24/7 flood response team who work with Civil Defence who manage community level response and give out warnings to local communities.

C Dates of Floods of the Waiohine River or any other river that covered any part of Greytown town ship

The following floods have been recorded in 'Floods in NZ 1920-53' with the following descriptions.

Date	Description
5 APRIL 1931	Following heavy rain in the ranges, the Waiohine River suddenly flooded and overflowed its banks in the Matarawa region. Parts of Greytown were flooded. The Tauherenikau River washed out the approaches to the railway bridge at Fernside and suspended rail traffic. Much farm land was inundated by the flood waters which, however, subsided quickly.
1-2 FEBRUARY 1936, Cyclonic storm	The Wairarapa district was deluged with rain accompanying this devastating storm, and over 4 inches. was recorded in twenty-four hours in Masterton. All rivers overflowed, and large areas of low-lying land were inundated. The Waipoua River broke its banks at Masterton and a considerable volume of water found its way into several streets including the main thoroughfare, where two or three shops were flooded to the extent of a few inches. At Tinui flood waters entered houses to depths up to 3 ft. The Waiohine River also overflowed and large areas were inundated between Carterton and Greytown. At Eketahuna damage resulted mainly from the wind, several buildings suffering severe damage. Damage to county roads in the district totalled £11,370.
22 MAY 1935	Following exceptionally heavy rain, flooding occurred throughout the district In twenty-four hours 3-40 in. was recorded at Masterton, 3.42 in. at Solway, 2.30 in. at Martinborough, 2.61 in. at Carterton, 4.6 in. at Te Hopai, and 3.69 in. at Longbush. At Masterton the Waipoua River overflowed its banks in

	several places, and water rushed through the streets, water entering several shop premises. Other low-lying areas of Masterton were also flooded, and some damage was reported. The Waiohine River also overflowed its banks and inundated land. Several roads were impassable because of flood waters. At Kopuaranga the post office was flooded by about a foot of water. Stock losses were generally small, however.
5 FEBRUARY 1941	Torrential rain which fell in the Tararua Ranges brought Wairarapa Rivers into high flood. The Waingawa, Waiohine, and Ruamahanga Rivers rose considerably, and the main highway near the Waiohine Bridge was under water for several hours.
8 FEBRUARY 1943	Following torrential rain in the Tararua catchments, rivers in the district were in high flood. The Mangatainoka River rose to an unprecedented level and swept away the Stirling Bridge at Nireaha. The structure was lifted bodily when the piles were washed away, and came to rest on an island down-stream, practically intact. The bridge, which was 180 ft. long, cost £12,000 to replace. The Waiohine River overflowed its banks and covered surrounding land and the main highway. Serious slipping and erosion took place on some farms, but stock losses were negligible.
28 OCTOBER 1945	Heavy rain in the Tararua Range brought general flooding to the Wairarapa. With a fall of 3.4 in. in twenty-four hours, the position at Pahiatua was very serious, and the town was isolated by road for a considerable period. The Mangatainoka River broke its banks and flooded a considerable portion of the town. The Waiohine River broke its banks also, and flooded the main highway between Greytown and the Waiohine Bridge, and some of the flood water reached the north end of the borough of Greytown. The river also broke its banks above and below the Matarawa Bridge. The flood peak level at the railway bridge was R.L. 365.9 and at the Matarawa Bridge R.L. 314.3, the stringers of the bridge having 4 ft. 3 in. clearance. At the Waiohine Bridge the flood level was R.L 272.7, and, as there was no clearance, the waterway under the bridge was surcharged to the extent of 2 ft. 1 in. notwithstanding that a considerable volume had escaped before reaching the bridge. The Tauherenikau River was not in exceptional flood, and the only flooding occurred above and below the lower bridge. The peak discharge in the Ruamahanga River at the Waihanga Bridge was estimated at 45,000 cusecs. Damage to roads in the Eketahuna county amounted to £2,100.

Since this report the following floods have been noted.

Date	Flood – and – [quality of flood, out of 10, for deriving base model]
01/1980	1424 cubic metres per second. Some photos. Long duration – 2 peaks. Extensive land flooding. Getting old [4/10]
12/12/1982	1558 cubic metres per second (some doubt about this number). Biggest on record. Some photos. Long duration (30 hours) Gauge validation/ Matt/ Hydrographs. New stopbank at Platform Farm [4 to 7/10]
1990	1408 cubic metres a second, single peak, plenty of aerial photos and other reference material [8/10]
06/09/1998	1104 cubic metres per second Long duration. Stopbank failure at TiceHurst. (used for validation) [0/10] Flooding at Papawai and behind the Urupa.
2002*	915 cubic metres per second [0/10]
12/02/2004	1362 cubic metres per second. Small amount into Apple Barrel. Lack of photos. At night and short duration [5/10]
2005*	857 cubic metres per second
18/01/2006*	762 cubic metres per second. Small amount into Apple Barrel.
07/10/2008 (Phil Wallace)*	982 cubic metres per second. New bridge was in place
2009 (Phil Wallace)*	Too small. Didn't leave channel

**These floods were too small to use to model.*

Figure 20: Floods of note – to identify candidates from which to develop a base model.

More information can be accessed in the Waiohine River Plan.
https://www.gw.govt.nz/assets/Documents/2022/06/The-Waiohine-Rakahanga-River-Plan.pdf

D the evacuation plans for Greytown township under any flood circumstances in detail

Greater Wellington does not develop or hold evacuation plans for the Greytown Township. We therefore find it necessary to refuse this part of your request under section 17(e) of the Local Government Official Information and Meetings Act 1987 (the Act) on the basis that the document alleged to contain the information does not exist.

When refusing a request under section 17(e) of the Act, we are required to consider consulting you before refusing. In this instance we believe that consulting you would not change the outcome of our decision.

However, in answering this part of your request, we consulted the Wellington Region Emergency Management Office (WREMO) and the Wairarapa Emergency Operations Centre (EOC). Both agencies advised that there is no specific evacuation plan.

Greater Wellington's flood response procedures set out at what stage of an event we will contact WREMO and the Wairarapa EOC. Any specific warnings to the Greytown community would comes directly from those agencies rather than Greater Wellington.

If you have any concerns with the decision(s) referred to in this letter, you have the right to request an investigation and review by the Ombudsman under section 27(3) of the Act.

Please note that it is our policy to proactively release our responses to official information requests where possible. Our response to your request will be published shortly on Greater Wellington's website with your personal information removed.

Nāku iti noa, nā

Wayne O'Donnell
Kaiwhakahaere Matua Whaitua| General Manager Catchment Management