From:
 Swain, Charles[Charles.Swain@sew.com.au]

 Sent:
 Mon 03/02/2025 4:08:19 PM (UTC+11:00)

To: McCreesh, Declan[Declan.McCreesh@sew.com.au]

Subject: FW: Detail on how burst in Bayview rd, McCrae was identified

Attachment: IMG\_6690.jpg
Attachment: IMG\_6691.jpg
Attachment: IMG\_6693.jpg

FYI

From: Loudon, Gary <Gary.Loudon@sew.com.au>

Sent: Friday, 31 January 2025 2:56 PM

To: Swain, Charles < Charles. Swain@sew.com.au>

Cc: Pham, Dat <Dat.Pham@sew.com.au>; Meng, Jie <Jie.Meng@sew.com.au>

Subject: RE: Detail on how burst in Bayview rd, McCrae was identified

Thanks Charles,

Unfortunately, I don't have any photos of the water going into the drain. Only pictures of the drain post repair.

When I said I heard the burst first, what I was hearing was the water from the burst falling through the grate 3-4m into a large storm water pit.

From the grate I followed the flow of water to the actual burst 15m away uphill from the grate

The grate is roughly 5m in length, 1m in width and 3-4m depth ( see photos )
The open grate, I assume, is there the catch rainfall from this adjacent creek ( currently dry )
as it's the lowest point before it crosses the Peninsula Link.

If the grate wasn't there our water from the burst would flow onto the Peninsula Link. With so much water over that amount of time....it would have been seen by motorists.

I am confident majority of the water entered the stormwater through this grate on across the highway.

Regards, Gary

From: Swain, Charles < <a href="mailto:Charles.Swain@sew.com.au">Charles.Swain@sew.com.au</a>

**Sent:** Thursday, 30 January 2025 5:12 PM **To:** Loudon, Gary <Gary.Loudon@sew.com.au>

Cc: Pham, Dat <<u>Dat.Pham@sew.com.au</u>>; Meng, Jie <<u>Jie.Meng@sew.com.au</u>>

Subject: RE: Detail on how burst in Bayview rd, McCrae was identified

Hi Gary,

This is excellent and you should be very proud of your work to find this so early in the investigation. Well done!

I'm curious about your observations about where the water was actually going. Are you confident that the water was entering the drain? If so, how? as I don't see an open grate or clear flow into a drain in any of the photos I have seen?

Thanks,

## Charles

From: Loudon, Gary <Gary.Loudon@sew.com.au>

Sent: Thursday, 30 January 2025 2:43 PM

To: Swain, Charles < <a href="mailto:Charles.Swain@sew.com.au">Charles.Swain@sew.com.au</a>>

Cc: Pham, Dat <<u>Dat.Pham@sew.com.au</u>>; Meng, Jie <<u>Jie.Meng@sew.com.au</u>>

Subject: Detail on how burst in Bayview rd, McCrae was identified

Hi Charles.

Jason Marsh gave me a ring on the 30 December advising of possible leak in Waller place, McCrae

He wanted my help to get an Operational overview of the area and to assist leak detection and Service Stream to determine if this was a leak or natural spring that has now come to surface.

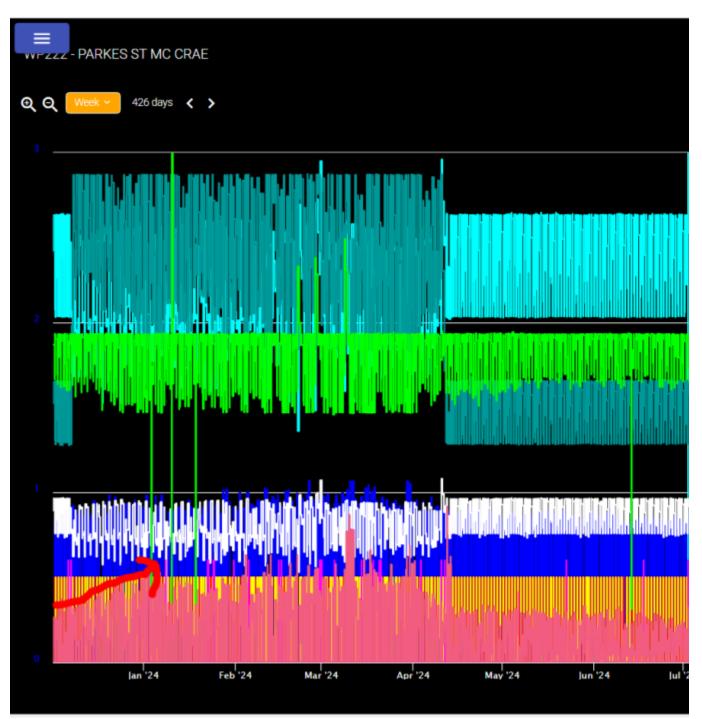
I arrived onsite at rnd 10am the same day (30 DEC) over at Waller Place,McCrae. I noticed water bubbling out of the road outside # 3 Charlesworth St, but it was the amount of running water in the council drain opp # 5 Waller that made me think this was a potential burst.

As Parkes Street tanks supply the area, I looked at the tank outflow ( Tag WP222FT2 ) difference from DEC 2023 to that of DEC 2024.

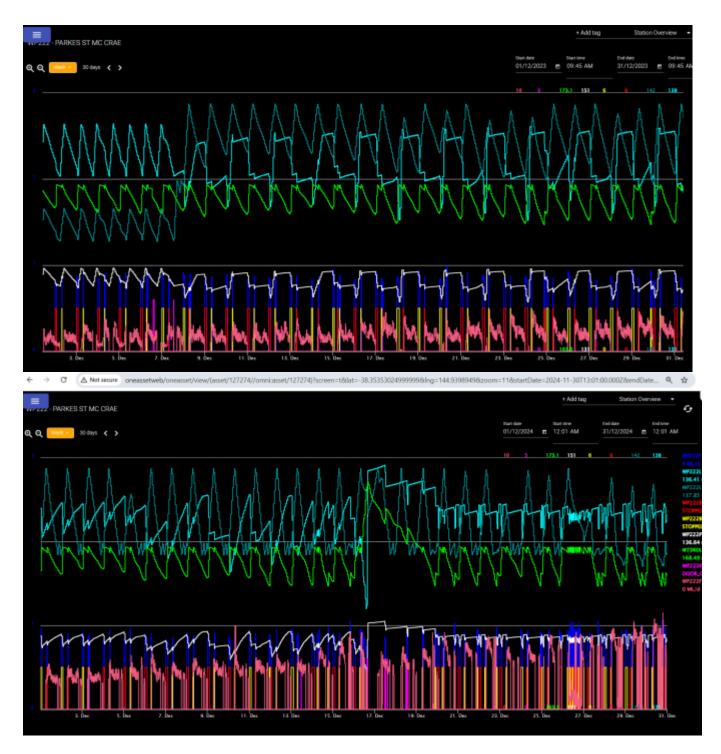
Its difficult to get a baseline flow for the tanks as they fill during the night, but I could see an increase in flow rate (see red trendline arrow in snip below).

DEC 23 ( ave peak time flow leading to New Years 1-1.5meg  $\,$  ) to DEC 24 (ave peak time flow leading to New Years 2.5 - 3meg  $\,$  )

**DEC 23 - JAN 25** 



**DEC 2023 vs DEC 2024** 



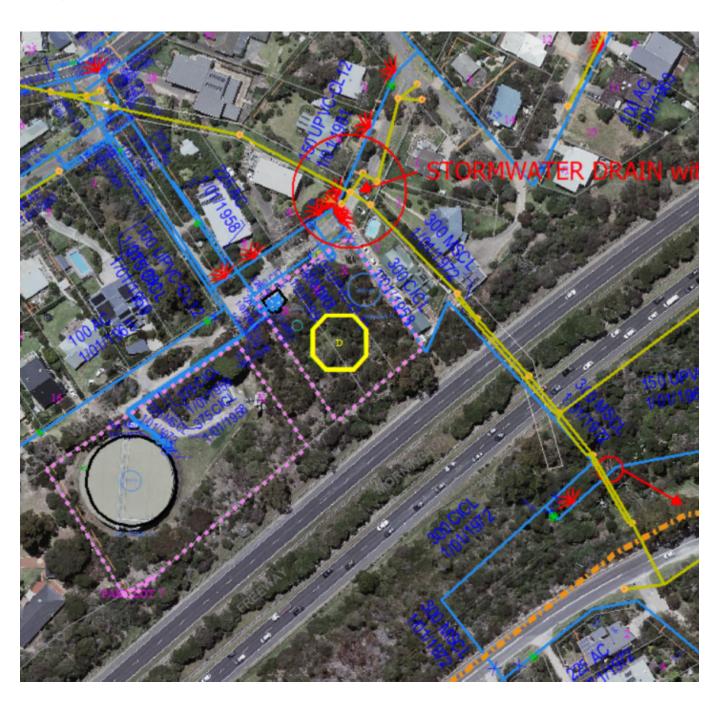
From there I suspected there may be a potential burst in the area based on the increase flow rate and used the council drain overview on GTViewer to follow the flow of the water to the source.

Whilst doing so I sounded the valves on the water mains adjacent to the drain uphill towards the tanks.

It was whilst locating and sounding the valves in heavy bushland on the other side of the

Mornington Freeway opp Bayview Road that I firstly heard water flow and later discovered water flowing into the large storm water pit through a grate that crosses the Peninsula link over to Waller Place. Following that surface water from the pit....i located the burst and tested the water's EC confirming it was potable water.

Note that the burst is not something someone would have called in as it was away from any walking paths and in heavy unmaintained bushland.

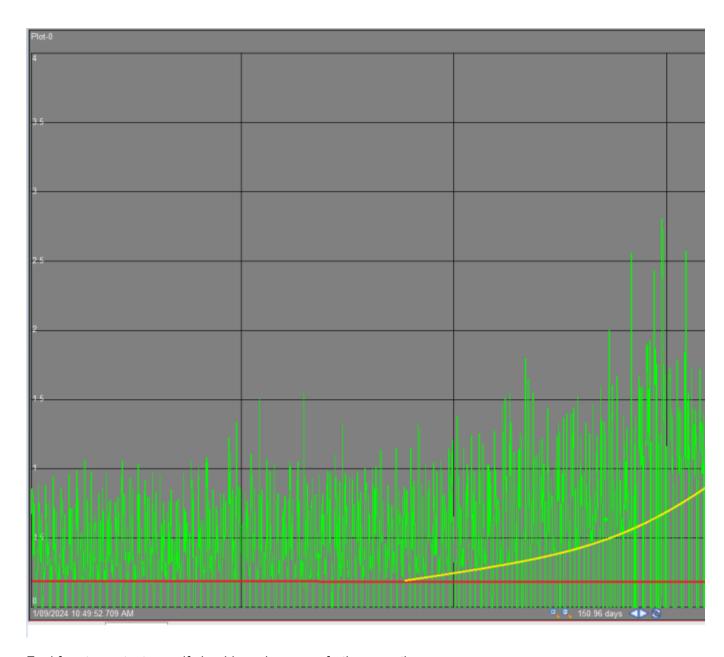






Once the repair was done by Service Stream, Dat and I were able to determine the approx. time and volume with a trend of the step change from the outlet of the tank at McCrae.

Below. Red line is baseline, yellow is increase. I believe it started early November until end of December, so ~60days. At the end it was a 2ML/d burst. Volume wise it was about 60ML.



Feel free to contact myself should you have any further questions

Cheers

Gary

From: Swain, Charles < Charles. Swain@sew.com.au >

Sent: Friday, 24 January 2025 8:08 AM

To: Loudon, Gary < Gary.Loudon@sew.com.au >

Cc: Meng, Jie < <u>Jie.Meng@sew.com.au</u>>; Pham, Dat < <u>Dat.Pham@sew.com.au</u>>; Macwilliams, Nico

<<u>Nico.Macwilliams@sew.com.au</u>>; McCreesh, Declan <<u>Declan.McCreesh@sew.com.au</u>>

Subject: Detail on how burst in Bayview rd, McCrae was identified

Importance: High

Hi Gary,

The Customer at 5 Waller place has written to the local member (Sam Growth) claiming that he strongly believes that the burst is the cause of the issues in McCrae. I am putting together a timeline of events and technical response to these claims.

Would it be possible to send me an email with snapshots of the trends showing exactly how you identified the burst, time it was going prior to identification and whether you are able to determine the approx. volume lost from the burst.

Nico and Dec, I am copying you in just in case this work has already been done and is accessible somewhere.

Thanks,

Charles