

## **ATTACHMENTS:**

Email advice from the Administration

The following information has been provided to the aforementioned residents as well as others who have asked similar questions.

As far as I can tell, the stormwater issue of note is not related to that which is above ground (as above ground water is captured by the large roadside drain alongside Inch Street Lane to the rear of 11 Inch Street) but rather the effects of ground water flow. Essentially, the existing Blast Furnace site is currently acting as a ground water recharge site as a result of its numerous subsurface tunnels and pathways. These site features can hold stormwater during consistent rainfall events of reasonable intensity, such as that which we are currently experiencing.

In a local-flow groundwater system, from the point of recharge, topographically low areas can become subject to significantly high-water table levels, sometimes being at surface level. When the water table level becomes the ground level, any ground level inconsistencies such as excavated dwelling sub-floors can become the groundwater outlet and subsequently become submerged with stormwater. Topographically, the blast furnace site is high while the residential properties of Inch Street are comparatively lower; the appropriate conditions for this phenomenon to occur.

The attached diagram is a good example of what I am describing, where the Blast Furnace is atop a hill.

From my knowledge and without any formal geotechnical or hydrological analysis, I can think of two options to resolve.

1. Fill the Blast Furnace site. This is cost-prohibitive and would probably not satisfy cost-benefit criteria.
2. Dig a groundwater well of sufficient depth and width, place strategically so it fills before any of the residential property sub-floors and pump the stormwater into the existing infrastructure that flows into Farmers Creek. This is still likely to be reasonably costly to construct and maintain however it may be an effective solution.

As Cr. Ring correctly notes, any solution and associated cost must be weighed up against other priorities of the region.

Diagram of ground water recharging

