# Attachment 2 to Item 10.3.1.

## Copy of Written Submissions

Date of meeting: 8 April 2025
Location: Council Chambers
Time: 6:30pm

The recent public meeting held Wed 11/12/2024 at North Richmond Community Centre to discuss the Draft Redbank Creek Flood Study was certainly an eye opener for all concerned residents and others.

Firstly, we would like to state that the meeting was poorly organised without the use of microphones the volume and clarity of the speakers was frustrating, unprofessional and ineffective. Their presentation was overwhelming, repetitive, speculative and full of jargon that people could not follow. It was certainly not helpful when the purpose of the meeting was to give clear, accurate and relevant information.

The presentation was based on questionable data, simulated maps, images, photos etc which is quite possibly very unreliable when you consider that one resident who was at the meeting, actually filled in council's research questionaire to provide relevant details about Redbank Creek flooding back in 1978. This man spoke up at the meeting saying that nobody from Council or this research team had bothered to speak to him about anything regarding flood waters on the creek! Why didn't they? Why didn't they get authentic, accurate and appropriate eye witness information before creating this study? Instead of making up their own assessments, projections, simulations and guesswork which could have negative effects on the residents of North Richmond.

We make the following points about this Draft Flood Plan;

1. The whole of Redbank Creek needs to be thoroughly inspected on the ground from the river to its end. All debris and obstructions need to be removed and cleared so that water can flow away. Any damage to the banks and structures along the creek need to be repaired or reinforced to stop bank erosion.

2. Drainage pipes need to be placed either near the sewage treatment plant or near Terrace Road to get the creek to flow back into the river or to another holding dam or underground storage pits.

3. Some kind of large pumping station set up near the water towers at the top of Grose Vale Road to pump excess water from Redbank Creek when it is flowing at full speed (heavy rain) to pump it into another holding dam or back into the river.

4. The planned future development of Redbank (Peels Dairy) meeting held 10/12/2024 in Council, should be immediately suspended until Council and the Developer have solved the problem of the creek flooding, breaking its banks, soil erosion, property damage to new homes already built on the estate and any future damage or problems for residents in North Richmond who have been told that they are in a flood zone.

If Redbank development with the number of homes already built is causing so much run off of water due to hard surfaces why would the Council approve further submissions for another 300-350 lots or 7000 more homes to create more flooding more damage more drama ???

The developer needs to be held accountable for damage to the creek, properties and any future change in insurance or titles.

Many promises were made about new bridges, roads, infrastructure etc when Redbank Development was built and all we see are broken promises, massive traffic delays, poor roads and now flood problems. What a joke this is!!

Council needs to sort these problems out and make the developer and others provide answers and solutions to the situation that they have caused. The ratepayers are not responsible for the costs involved in this problem.

Good Afternoon,

Although we have already sent you our comments and responses about the Redbank Creek Flood plan and all the drama associated with it. We would strongly suggest that you read the ….

Sydney Water Richmond System Wastewater Upgrade…. latest copy in our December water bill

The old treatment plant at North Richmond is being completely rebuilt and expanded with piping across the river to Richmond for processing.

If this new pumping station is located right near Redbank Creek why isn't all the excess water from rains etc being captured there and pumped away??

This should solve the problem of water run off from the massive Redbank development.

Hence, we shouldn't be hearing any further comments about streets being flood effected. If money is being spent on this project then it needs to be thoroughly inspected by qualified professionals and engineered to cater for the water run off and solve this situation that all this development has created in the first place.

We look forward to hearing from Council about this study.

Regards,

[redacted]

[redacted] **submission on the Draft Redbank Creek Flood Study 2024**

## Introduction

Redbank Creek is a regional watercourse with a catchment of over 1500 ha and is a significant tributary of the Hawkesbury River system. Of this total area the Redbank Communities site makes up only 180 ha.

Council's own information sheet on this new flood study states that the study area is to cover an area of approximately 27sq kilometres taking in the areas of North Richmond, Grose Vale, Kurrajong and Kurmond.

The catchment maps of Redbank Creek and its tributaries clearly show that the majority of the water volume flowing through Redbank Creek comes from upstream of North Richmond/Redbank, noting that the **Redbank development area makes up approximately only 12% of the total catchment area.**

## Pre-Development

Prior to the development of the greater land holding which now contains the Redbank & RSL LifeCare Seniors Living development, there was an un-named, man-made trunk drainage channel that ran along the northern boundary of the greater land holding directly adjacent to the southern end of Arthur Phillip Drive to the south, which then extended eastwards and then branched off in two directions.

The first branch extending east into a piped system **without** any overland surcharge path above it, and also a north branch in a piped system against the grade of the above landform, extending down to a gradual reduction in pipe sizes with surcharge pits, to a relatively small channel down within the eastern extent of Peel Park to Redbank Creek. Separation of flows at the 'branch point' was achieved by a 'fabri form' type concrete weir adjacent to the most eastern perimeter of the greater land holding.

The first branch extending east into a piped system **without** any overland surcharge path above it, also had its invert predominantly above the levels of the adjacent Arthur Phillip Drive, which meant that Arthur Phillip Drive and the urban housing fronting this road were sited actually lower than the drainage channel.

In addition, due to the method of construction of these dams by PA Yeomans (pushing material from the side of the dam footprint to the front) meant that invert of the farm dam at the southern end of Arthur Phillip Drive (now known as Dam 13), was significantly above the landform which followed with the design, approval and construction of Arthur Phillip Drive and that of the surrounding residential development (new houses) in the 1980s.

Ultimately, this arrangement meant that if the original Dam 13 was full with either flows from the by wash increasing or Dam 13 overtopping, the majority of flow would end up being conveyed for over 120m, beside the existing urban residential housing (of the 1980s) on Arthur Phillip Drive, until Arthur Phillip Drive began to rise up and another short drainage channel took flow into the northern side of the un-named, man-made trunk drainage channel.

This (pre-RSL LifeCare Seniors Living & Redbank development) situation was confirmed –

- With discussions with local Hawkesbury SES personnel, where it has been described how the old farm dam (Dam 13) above Arthur Phillip Drive, regularly had Arthur Phillip Drive becoming inundated, with flooding through some houses during rain events.

- As was the case across the greater land holding, it was widely known that the old farm dams regularly had minor dam wall failures during rain events and required frequent repairs.

- In 2011 the Hawkesbury Environmental Network (HEN) did a submission on the Redbank Planning Proposal and clearly outlined historic flooding of residents along Redbank Creek. They stated "There is a body of evidence on record about massive flooding, eroded backyards, and loss of property bordering Redbank Creek during the period 1982-1997. Merrick Place in particular has a situation where a gabion structure was erected to prevent further loss, but has instead shifted sideways. In 1987 Council considered a flood levee along the whole length of the Creek from Merrick Place to Bells Line of Road. This idea was abandoned as economically unviable. Nothing was done and the problem continues with property owners in Susella Crescent recently stating a loss of 12 feet of backyard. In Merrick Place a property owner frequently reports the change in level of turbidity of the creek flowing through his backyard after storm events."

- Hawkesbury City Council should have a historic record over many decades of correspondence from residents at North Richmond who have been affected by Redbank Creek flooding and overland flooding clearly showing that flooding in the area is an historic issue caused by the failure to provide adequate riparian setbacks along Redbank Creek and the failure to provide unobstructed overland flow paths for stormwater in the older residential areas of North Richmond.

## Initial development of RSL LifeCare Seniors Living

With the commencement and ongoing delivery of the RSL LifeCare Seniors Living development, from 2010, the un-named man-made trunk drainage channel was significantly lowered and reconstructed to be beneath the adjacent extent of Arthur Phillip Drive.

Leading up to 2012 and with the context of local discussion and the understanding of the progress of the rezoning of the greater land holding by Redbank, it was identified by Council that the interaction between Redbank Creek and the lowered and reconstructed un-named man-made trunk drainage channel that runs along the northern boundary of the RSL LifeCare Seniors Living development required further investigation.

The  Flood Study prepared by J. Wyndham Prince (JWP) for Council in 2012 for Redbank Creek and this un-named, man-made trunk drainage channel, confirmed that the capacity of the un-named, man-made trunk drainage channel along Arthur Phillip Drive down to the aforementioned 'branch point', located behind the properties fronting Grainger Place, was adequate to convey the pre-development 100 year ARI discharges from the upstream catchment.

However, downstream and eastwards of this 'branch point', it is clearly identified that inadequate capacity pipe systems without any overland surcharge paths, which extend through

> The modelling has identified that the North Richmond Township is impacted by wide spread overland flooding which affect over 547 properties with around 226 of these properties estimated to be affected by above floor flooding in the base case.

the existing older North Richmond township of urban residential and local streets will result in widespread and significant inundation of private residences for a range of significant storm events before the 1 in 100 event is realised.

Discharges in excess of the pipe capacities have always been conveyed overland through residential properties. Possible solutions to this problem were provided in the Hawkesbury City Council commissioned report by JWP in 2012 but none of the solutions have been acted upon.

In addition, Dam 13, an old farm dam, was analysed in its predevelopment state for this report in 2012. Since then, its capacity and function have improved significantly.

## Ongoing development of Redbank

With the completed development of the RSL LifeCare Seniors Living and the ongoing Redbank residential estate, several key improvements are now positively interacting –

- the lowering and reconstructing of the un-named man-made trunk drainage channel,
- the implementation of OSD within the southern catchment, which comprises a significant component of the Redbank and all of the RSL LifeCare Seniors Living development,
- the relocation and reconstruction of a lowered Dam 13 to the west along with the incorporation of modern dam construction protections and inclusions for water retention, bank structure.

This co-ordinated interaction has significantly stopped the overland water inundation of those previously impacted houses in Arthur Phillip Drive in events less than the peak 1 in 100 year event.

Across the Redbank development in summary:

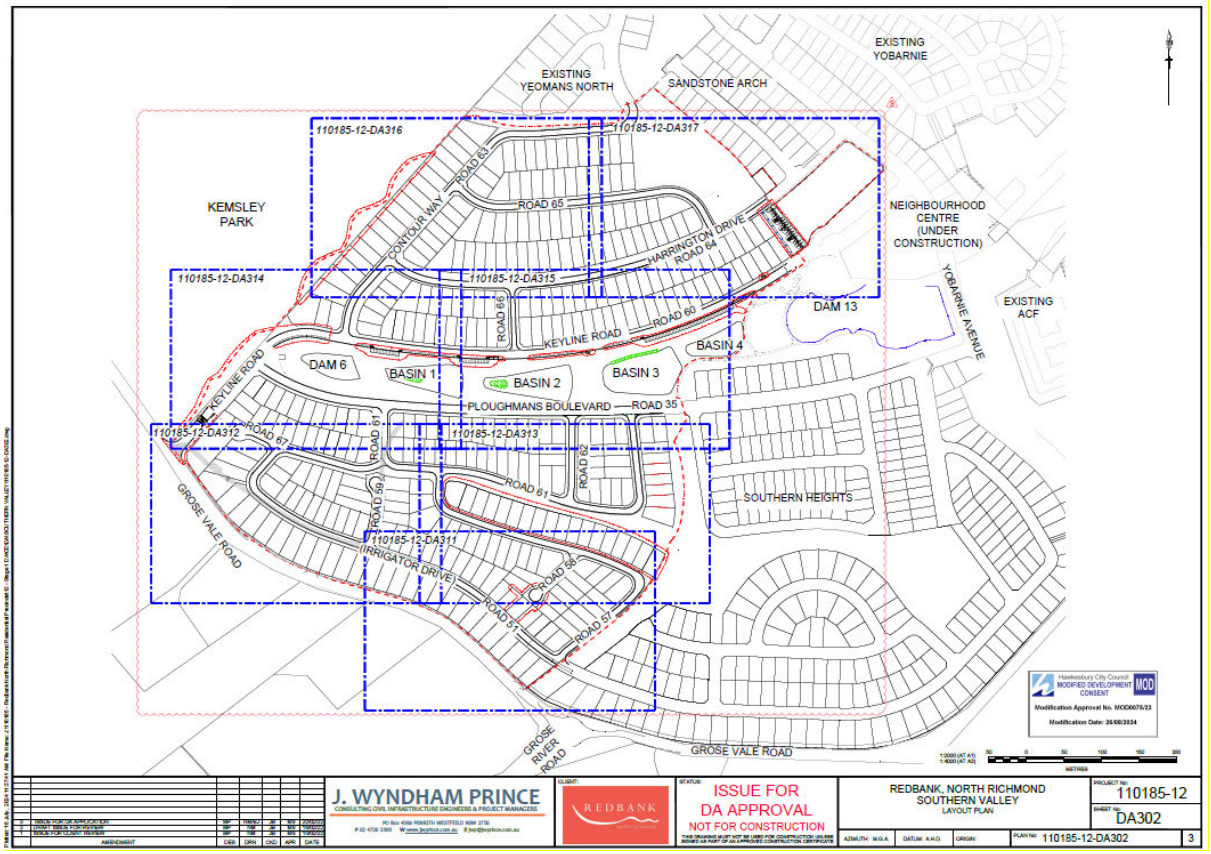


*Diagram. Approved on-site retention basins to be constructed.*

Two (2) farms dams have been removed,

- seven (7) farm dams have been reduced, relocated and reconstructed,
- one (1) farm dam is planned to be reduced, relocated and reconstructed with Sth Valley current DA 0092/22,
- 4 new approved retention basins will be constructed in Central Park between Dam 6 and Dam 13 to assist in managing stormwater flows in major rain events (see approved plans insert),
- one (1) dam being Dam 14 has been retained.

Dam 14, which has always existed online with Redbank Creek has been unable to be reconstructed due to the ownership of the dam formation being within the adjacent properties to the north. Redbank Communities funded and installed telemetry and a camera at Dam 14 for ongoing monitoring of the water level and spillway operation. Ownership of the land area comprising the water area of Dam 14 is now within the ownership of Council and zoned RE1.

All of the dams which have been reduced, relocated and reconstructed, now comply with modern standards for engineered landform and discharge conveyance, providing both stormwater water quantity and quality controls, with certified construction compliance to ensure stable dam walls and controlled overflow systems. Dam 13 is a declared dam and as such fully complies with the regulations overseen by Dams Safety NSW.

The draft study mentions that in March 2022 during the significant flood event an evacuation order was issued by SES headquarters at Homebush for North Richmond due to wrongly interpreted

information from a dashboard alert system by personnel unfamiliar with the local area. Following the flood event Council's Resilience and Emergency Management Coordinator along with SES Hawkesbury and Redbank Communities worked to establish new protocols so a false evacuation order does not occur again in the future.

Dam 13 is designed in accordance with the regulations stipulated by Dams Safety NSW for a declared dam. This involves the inclusion of a reinforced turf dam wall, large engineered overflow drainage as well as engineered spillway to control excess water during major rain events. CCTV is also installed to remotely monitor water level in real time as well as permanent telemetry to monitor the structural integrity of the dam wall on an ongoing basis. These inclusions were funded and installed by Redbank Communities. Hawkesbury Council is now the responsible authority for the monitoring and management of Dam 13.

## The implementation of Stormwater management

It has been a constant requirement by Council, for the Redbank development to provide an engineered solution in the re-engineered farm dams, drainage and discharge infrastructure to have no greater water volume being discharged from the RSL LifeCare Seniors Living & Redbank development, than that which occurred prior to development. That is, only pre-development flows are discharged from the greater land holding up to and including the peak 1 in 100 year event.

## Future Resilience Improvements

As outlined in the draft plan (2024 Draft Redbank Creek Flood Study) additional gauging stations should be established to provide enhanced data collection.

Also as highlighted in the draft plan, during the preparation of this flood study the project team carried out an extensive site inspection. During this inspection a significant blockage of Redbank Creek was found between Pecks Rd and Elizabeth Street.

To ensure the watercourse flows freely during all rain events a regular inspection regime should be established to clear the channel of rubbish and natural debris.

## Conclusion

The issue of overland flooding and inadequate drainage at North Richmond as well as Redbank Creek issues impacting residents who back onto Redbank Creek have been a long-standing problem.

These issues have been well documented and discussed by Council over many decades with local North Richmond residents long before the development of the Redbank seniors living development or the Redbank residential development occurred.

Significant upgrades of the old stormwater drainage system is required including the creation of unobstructed overland flow paths for when the old inadequate drainage system is overwhelmed during significant rain events. A memorandum in the form of a file note (dated 24 January 2003)

provided by Council has noted that the existing drainage system (twin 1200 mm diameter RCP and separate 750 mm RCP east through North Richmond) lacks sufficient capacity to adequately provide an acceptable standard of protection from larger storms (Ref J. Wyndam Prince 10 May 2013 Stormwater Management Strategy and Flooding Report).

When residential development at North Richmond occurred along the riparian zone of Redbank Creek between O'Dea Place and William Street planning regulations at the time did not protect the riparian corridor along the creek through setbacks compared to planning regulations that have been in place in more recent times.

This encroachment of the creek has caused both impact on the stability of the banks of the creek including removal of trees which previously assisted to hold the bank in place and reduce erosion. Additionally, the natural flooding tendency of a creek means that without a riparian buffer zone houses and residents infrastructure like sheds and gardens that have been constructed within what should have been the riparian zone are impacted significantly in times of intense rainfall when Redbank Creek is in full flood.

[redacted]

23/01/2025

**Hawkesbury City Council**
PO Box 146, Windsor NSW, 2756

Dear Hawkesbury City Council,

Subject: Submission Regarding the Redbank Creek Flood Study

We are writing as a concerned homeowner residing within the Hawkesbury City Council area, directly impacted by the outcomes of the recent Redbank Creek Flood Study. We reside at [redacted] and while we appreciate the council's efforts to assess and mitigate flood risks within the region, we are compelled to express our concerns regarding the study's insufficient consideration of the potential damage to private properties, including my own, due to the increased hard surface run-off from the Redbank Housing development.

As residents, we have firsthand knowledge of the vulnerability of properties in this area to flooding, as seen in 2021, 2022, 2023 and 2024. Despite the study's comprehensive technical analysis, it appears to lack adequate focus on the specific impacts on private properties. For example, our property is located within a zone identified as being at high risk of flooding, yet the study provides no detailed assessment of how proposed mitigation measures will address or reduce the direct damage to my home and surrounding private lands. Furthermore, it fails to outline any provisions for compensating property owners or providing support for flood-proofing measures.

The omission of a property-specific perspective not only diminishes the practical relevance of the study but also leaves residents like us feeling unheard and unsupported. Protecting private properties should be a priority, as the financial and emotional toll of flood damage can be devastating. Many residents, us included, have invested significant resources into maintaining and improving our homes, and it is disheartening to see this risk inadequately addressed.

In light of these concerns, we respectfully request the following actions:

1. **Detailed Impact Assessments**: The study should be updated to include a more detailed analysis of the potential impact of flooding on private properties, including property-specific risks and potential damages.

2. **Community Consultation**: Facilitate further consultations with affected property owners to ensure their concerns and experiences are incorporated into the study and its recommendations.
3. **Clear Mitigation Strategies**: Provide clear and actionable strategies to minimize the risk of flood damage to private properties, such as infrastructure improvements, zoning changes, or funding for flood-proofing initiatives.
4. **Support for Property Owners**: Outline any available support mechanisms for homeowners, including grants or subsidies for flood resilience measures and assistance with recovery efforts in the event of future floods.

We believe that by addressing these gaps, the council can foster greater trust and collaboration with the community while ensuring that the Redbank Creek Flood Study serves as a robust framework for protecting all residents and their properties.

Thank you for considering my submission. We are happy to provide further information or discuss my concerns in more detail if required. Please do not hesitate to contact us at [redacted]

Yours sincerely,

[redacted]

08/01/2025

Hawkesbury City Council
PO Box 146, Windsor NSW, 2756

Dear Sir/Madam,

I write regarding your request for submissions commenting on the recent Redbank Creek Flood study. I reside at [redacted] and have been living at this address since August 2009. My property is bordered by Redbank Creek below and north of the Redbank development.

I have serious concerns regarding the effects of flash flooding of Redbank creek during intense rainfall events and have experienced such flooding events in March 2021 and March 2022 as have my neighbours, who also have properties that border the creek. While the focus of flooding to the area during these times was on the Hawkesbury river level and subsequent flooding events, there has been no recognition of the considerable damage done to property caused by the flooding of Redbank Creek. Such damage is as follows, erosion of the creek bank and undermining of land that abuts the creek, damage to fences, sheds, pools and houses dure to flooding of the lower floors and damage caused by debris and trees washing down the creek with the water flow. This damage is extensive, please see footage attached.

I have been fortunate as I am located after a bend on the creek, and I am on higher ground therefore have not suffered any damage apart from minor bank erosion and subsequent deposition of trees and debris after the event. My immediate neighbours to my left and right were not so lucky and suffered considerable and extreme effects which included damage to property and flooding of the homes lower floors. Other neighbours in the street have suffered progressive erosion of the back yard which in some cases is not safe to walk on.

I acknowledge the work that has gone into the Redbank Flood Study but am disappointed that there is no recognition of the link between the Redbank Development and the increasing amounts of water flowing through the creek particularly after heavy rain events. All the runoff from the hard surfaces in the development flow directly into Redbank creek or the tributary that flows behind Michael Street and Tyne Cresent. Further, I have noted considerable increasing amounts of flow through the creek since the development began. My understanding was that when the Redbank development was approved there was a commitment to keep the flows into Redbank Creek equal to predevelopment levels, and I don't believe this has been honoured by the Redbank group or the Hawkesbury Council.

I am not opposed to the Redbank Development. I am concerned as to the lack of responsibility and accountability by the Redbank group and the lack of governance from the Hawkesbury Council for the hard surface water run of from the estate into the

creek. This issue has never been owned or acknowledged as a causative factor. I cannot see the report identifies either causes or solutions to the problem.

Further we have many more homes planned for this area, which will certainly contribute to ongoing flash flooding. I would like my submission to be taken seriously as part of a contributing piece of the overall complaint to council by the residents in this area. Along with flood damage there is also the issue of decreasing property values for those who live along the creek and are trying to sell.

[redacted]