Transport for NSW

11 May 2023

TfNSW Reference: SYD23/00453/01
DPE Reference: PP-2021-6630

Ms Amanda Harvey
Executive Director, Metro East and South
Planning and Land Use Strategy
Department of Planning and Environment
Locked Bag 5022
Parramatta NSW 2124

Attention: Rachel Hughes

RE: PLANNING PROPOSAL FOR 143 STONEY CREEK ROAD, BEVERLY HILLS – GEORGES RIVER COUNCIL

Dear Ms Harvey,

Transport for NSW (TfNSW) appreciates the opportunity to provide comment on the Planning Proposal for 143 Stoney Creek Road, Beverly Hills (the '*Planning Proposal'*), referred to us via the NSW Planning Portal on 18 April 2023. It is noted that consultation with TfNSW is a requirement of the Gateway determination issued for the Planning Proposal under section 3.34 of the *Environmental Planning and Assessment Act 1979*.

The Planning Proposal seeks to amend the Georges River Local Environmental Plan (LEP) 2021 for land at 143 Stoney Creek Road, Beverly Hills to:

- Change the zone from SP2 Infrastructure (Public Administration) and R2 Low Density Residential to R4 High Density Residential;
- Provide additional permitted uses of 'office' and 'business premises' in Schedule 1 of Georges River LEP 2021;
- Introduce an FSR of 1.4:1 for the entire site;
- Introduce a Height of Building (HOB) control of 16 metres for the entire site; and
- Apply a minimum lot size of 1000m^2 for the entire site.

TfNSW has reviewed the 'Traffic Impact Assessment' report (Prepared by Ason Group dated 08 April 2022) and 'Planning Concept & Site Analysis' (Prepared by Ionic Management, dated 27 May 2022) and raises no objection subject to all vehicular access to any proposed development being via Cambridge Street, as required by Clause 2.119 of *State Environmental Planning Policy (Transport and Infrastructure) 2021.*

Thank you for the opportunity to provide advice on the subject Planning Proposal. Should you have any questions or further enquiries in relation to this matter, Xin Zhao would be pleased to take your call on 0466 599 538 or email: development.sydney@transport.nsw.gov.au.

Yours sincerely,

Carina Gregory
Senior Manager, Strategic Land Use
Land Use, Network & Place Planning, Greater Sydney

27-31 Argyle Street Parramatta NSW 2150
PO Box 973 Parramatta CBD NSW 2124
W transport.nsw.gov.au

28 April 2023 Our Ref: 184193

Rebecca Lau
Planning Proposal Council Officer
Georges River Council
rebecca.lau@georgesriver.nsw.gov.au

RE: PP-2021-6630 at 143 Stoney Creek, Beverly Hills

Thank you for notifying Sydney Water of PP-2021-6630 at 143 Stoney Creek, Beverly Hills, which proposes to amend the Georges River LEP 2021 to introduce permissible uses for commercial premises, centre-based childcare facility, health services facility and veterinary hospital, to allow the approved three storey medical building to accommodate a broader mix of employment and enable the existing building to be usefully occupied. We have reviewed the application based on the information supplied and provide the following comments for your information to assist in planning the servicing needs of the proposed development.

Water and Wastewater Servicing

- Potable water servicing and wastewater servicing should be available.
- Amplifications, adjustments, and/or minor extensions may be required.

Stormwater –clarification of design required prior to referral approval

Sydney Water's previous concurrence for the development at this site (copy enclosed) is based on the premise that the stormwater channel through the property would be deviated as part of the development with the following:

- No buildings or permanent structures over the new deviated stormwater channel or within 1m from the outside face of the new deviated stormwater channel.
- This 1m horizontal clearance requirement would apply for unlimited depth and heigh
- Permanent structures include (but are not limited to) basement car park, hanging balcony, roof eves, hanging stairs, stormwater pits, stormwater pipes, elevated driveway, basement access or similar structures.

As per the recently provided details however, the proponent proposes to construct an elevated driveway or basement access over future Sydney Water's stormwater channel and within 1m from the outside face of the future stormwater channel. **This is not acceptable**.

The Proponent may be approved to construct a driveway over the deviated stormwater pipe/channel or within 1m from the outside face of the new deviated stormwater pipe/channel subject to the following requirements:

- Driveway must be on existing ground level.
- No elevated driveway or basement access
- Quality of the driveway or footpath should not exceed rural road grade or rural footpath grade.
- If concrete slab is to be provided, then it should not exceed the quality/strength of 150mm thick concrete or 100mm thick concrete with SL82 mesh

Trade wastewater requirement

- If this proposed development is going to generate trade wastewater, the developer must submit an application requesting permission to discharge trade wastewater to Sydney Water's wastewater system. Applicant must wait for approval and issue of a permit before any business activities can commence.
- The permit application can be made on Sydney Water's web page through Sydney Water Tap In. http://www.sydneywater.com.au/tapin/index.htm

Next steps

- **The proponent must engage with Sydney Water directly via a registered WSC (referencing the case number above) to provide clarifications on the stormwater queries above. This should be done as soon as possible.**

This advice is not a formal approval of our servicing requirements. Detailed requirements, including any potential extensions or amplifications, will be provided once the stormwater issues are resolved and the development is referred to Sydney Water for a Section 73 application. More information about the Section 73 application process is available on our Land Development web page.

The development servicing advice provided by Sydney Water is based on the best available information at the time of referral (eg. planning proposal) but will vary over time with development and changes in the local systems. This is particularly important in systems with limited capacity and it is best to approach Sydney Water for an updated capacity assessment (especially where an approval letter is more than 12 months old).

If you require any further information, please contact the Growth Planning Team at urbangrowth@sydneywater.com.au.

Yours sincerely,

Kristine Leitch
Commercial Growth Manager
City Growth and Development, Business Development Group
Sydney Water, 1 Smith Street, Parramatta NSW 2150

29 June 2020 Our Ref: 184193

Eliyah El Khoury
Georges River Council
24 MacMahon Street, Hurstville 2220
pdadmin@georgesriver.nsw.gov.au

RE: Development Application DA2020/0227 at 143 Stoney Creek Road, Beverly Hills

Thank you for notifying Sydney Water of DA2020/0227 at 143 Stoney Creek Road, Beverly Hills, which proposes a part two and part three storey medical centre on the former motor registry site, and associated deviation of a Sydney Water stormwater channel traversing the property. Sydney Water has reviewed the application based on the information supplied and provides the following comments to assist in planning the servicing needs of the proposed development.

Water Servicing

- Our servicing shows that the trunk potable water system should have adequate capacity to service the proposed development.
- Amplifications or extensions to the potable water network may be required complying with the Water Services Association of Australia (WSAA) code – Sydney Water edition.

Wastewater Servicing

- Our servicing shows that the trunk wastewater system should have adequate capacity to service the proposed development.
- Amplifications or extensions to the wastewater network may be required complying with the Water Services Association of Australia (WSAA) code – Sydney Water edition.

Stormwater

- Sydney Water's concurrence to the current proposal is subject to the requirement that the proponent deviate the stormwater channel as per a Sydney Water feasibility letter dated 28 April 2020, issued under Case Number 184193. A copy of this feasibility letter is attached for your information.
- As a further clarification for the Building Adjacent to Stormwater Channel, Sydney Water wish to advice as follows:
- The proponent is required to ensure no new buildings or permanent structures are proposed within 1m from the outside edge of the new deviated stormwater channel. Permanent structures include (but are not limited to) basement car park, hanging balcony, roof eves, hanging stairs, stormwater pits, stormwater pipes, elevated driveway, basement access or similar structures. This clearance requirement applies for unlimited depth and height.

This advice is not formal approval of our servicing requirements. Detailed requirements, including any potential extensions or amplifications, will be provided once the development is referred to Sydney Water for a Section 73 application. More information about the Section 73 application process is available on our web page in the Land Development Manual.

Further advice and requirements for this proposal can be found in Attachments 1 & 2. If you require any further information, please do not hesitate to contact the Growth Planning Team at urbangrowth@sydneywater.com.au.

Yours sincerely,

Kristine Leitch
Growth Intelligence Manager
City Growth and Development, Sydney Water
1 Smith Street, Parramatta NSW 2150

Attachment 1

Sydney Water Servicing

A Section 73 Compliance Certificate under the Sydney Water Act 1994 must be obtained from Sydney Water.

The proponent is advised to make an early application for the certificate, as there may be water and wastewater pipes to be built that can take some time. This can also impact on other services and buildings, driveways or landscape designs.

Applications must be made through an authorised Water Servicing Coordinator. For help either visit www.sydneywater.com.au > Plumbing, building and developing > Developing > Land development or telephone 13 20 92.

Building Plan Approval

The approved plans must be submitted to the Sydney Water Tap in™ online service to determine whether the development will affect any Sydney Water sewer or water main, stormwater drains and/or easement, and if further requirements need to be met.

The Sydney Water Tap in™ online self-service replaces our Quick Check Agents as of 30 November 2015.

The Tap in™ service provides 24/7 access to a range of services, including:

- building plan approvals
- connection and disconnection approvals
- diagrams
- trade waste approvals
- pressure information
- water meter installations
- pressure boosting and pump approvals
- changes to an existing service or asset, e.g. relocating or moving an asset.

Sydney Water's Tap in™ online service is available at: https://www.sydneywater.com.au/SW/plumbing-building-developing/building/sydney-water-tap-in/index.htm

Attachment 2

Requirements for **Business Customers for Commercial and Industrial Property Developments.**

Trade Wastewater Requirements

If this development is going to generate trade wastewater, the property owner must submit an application requesting permission to discharge trade wastewater to Sydney Water's sewerage system. You must obtain Sydney Water approval for this permit before any business activities can commence. It is illegal to discharge Trade Wastewater into the Sydney Water sewerage system without permission.

The permit application should be emailed to Sydney Water's Business Customer Services at businesscustomers@sydneywater.com.au

A Boundary Trap is required for all developments that discharge trade wastewater where arrestors and special units are installed for trade wastewater pre-treatment.

If the property development is for Industrial operations, the wastewater may discharge into a sewerage area that is subject to wastewater reuse. Find out from Business Customer Services if this is applicable to your development.

Backflow Prevention Requirements

Backflow is when there is unintentional flow of water in the wrong direction from a potentially polluted source into the drinking water supply.

All properties connected to Sydney Water's supply must install a testable Backflow Prevention Containment Device appropriate to the property's hazard rating. Property with a high or medium hazard rating must have the backflow prevention containment device tested annually. Properties identified as having a low hazard rating must install a non-testable device, as a minimum.

Separate hydrant and sprinkler fire services on non-residential properties, require the installation of a testable double check detector assembly. The device is to be located at the boundary of the property.

Before you install a backflow prevention device:

1. Get your hydraulic consultant or plumber to check the available water pressure versus the property's required pressure and flow requirements.
2. Conduct a site assessment to confirm the hazard rating of the property and its services. Contact PIAS at NSW Fair Trading on 1300 889 099.

For installation you will need to engage a licensed plumber with backflow accreditation who can be found on the Sydney Water website:
http://www.sydneywater.com.au/Plumbing/BackflowPrevention/

Water Efficiency Recommendations

Water is our most precious resource and every customer can play a role in its conservation. By working together with Sydney Water, business customers are able to reduce their water consumption. This will help your business save money, improve productivity and protect the environment.

Some water efficiency measures that can be easily implemented in your business are:

- Install water efficiency fixtures to help increase your water efficiency, refer to WELS (Water Efficiency Labelling and Standards (WELS) Scheme, http://www.waterrating.gov.au/
- Consider installing rainwater tanks to capture rainwater runoff, and reusing it, where cost effective. Refer to http://www.sydneywater.com.au/Water4Life/InYourBusiness/RWTCalculator.cfm
- Install water-monitoring devices on your meter to identify water usage patterns and leaks.
- Develop a water efficiency plan for your business.

It is cheaper to install water efficiency appliances while you are developing than retrofitting them later.

Contingency Plan Recommendations

Under Sydney Water's customer contract Sydney Water aims to provide Business Customers with a continuous supply of clean water at a minimum pressure of 15meters head at the main tap. This is equivalent to 146.8kpa or 21.29psi to meet reasonable business usage needs.

Sometimes Sydney Water may need to interrupt, postpone or limit the supply of water services to your property for maintenance or other reasons. These interruptions can be planned or unplanned.

Water supply is critical to some businesses and Sydney Water will treat vulnerable customers, such as hospitals, as a high priority.

Have you thought about a contingency plan for your business? Your Business Customer Representative will help you to develop a plan that is tailored to your business and minimises productivity losses in the event of a water service disruption.

For further information please visit the Sydney Water website at: http://www.sydneywater.com.au/OurSystemsandOperations/TradeWaste/ or contact Business Customer Services on 1300 985 227 or businesscustomers@sydneywater.com.au.

Our Ref: ID 1932
Your Ref: PP-2021-6630

17 May 2023

Rachel Hughes
Department of Planning and Environment
Locked Bag 5022
Parramatta NSW 2124

email: Planning Portal
CC: Shelly.stingmore@ses.nsw.gov.au

Dear Rachel,

Planning Proposal for 143 Stoney Creek Road, Beverly Hills

Thank you for the opportunity to provide comment on the Planning Proposal for 143 Stoney Creek Road, Beverly Hills. It is understood that the planning proposal seeks to:

- Rezone the proposed site from SP2 Public Administration and R2 Low Density Residential, to R4 High Density Residential
- Increase the number of dwellings on site from zero to approximately 38
- Raise the maximum height of the building from 9m (R2 Residential limit) to 16m
- Include "business premises" and "office premises" as land uses to be permitted with consent in Schedule 1
- Increase the minimum lot size from 450m2 to 1,000m2
- Raise FSR from 0.55:1 to 1.4:4.

It is noted that the Development Application for the site also included the following:

- Three storey medical centre with an FSR of 1.4:1 and height of 16 metres
- Three levels of basement car parking for 114 vehicles
- A flood chamber.

The NSW State Emergency Service (NSW SES) is the agency responsible for dealing with floods, storms and tsunami in NSW. This role includes, planning for, responding to and coordinating the initial recovery from floods. As such, the NSW SES has an interest in the public safety aspects of the development of flood prone land, particularly the potential for changes to land use to either exacerbate existing flood risk or create new flood risk for communities in NSW.

STATE HEADQUARTERS
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www.ses.nsw.gov.au
ABN: 88 712 649 015

In summary, NSW SES notes that the proposed site is directly in a known overland flow path within the 1% Annual Exceedance Probability (AEP) flood extent[1], is prone to high velocity flooding on and immediately surrounding the site (>2.0m/s during 1% AEP events)[2] and the proposal is inconsistent with Ministerial Section 9.1 Direction 4.1 – Flooding. NSW SES recommends reconsidering the proposed uses and car parking options for the site.

The proposed site is in a flood prone area, and the proposal seeks to increase the population density on the site, including sensitive uses that would lead to a higher percentage of vulnerable people on the site. This will significantly increase the flood risk, and this residual risk will be passed on to the NSW SES. 'Shelter in place' or 'vertical evacuation' strategy is not an endorsed flood management strategy by the NSW SES for future development. It is also recommended to consider relocating car parking to be above-ground, due to the inherent flood risks associated with basement carparks. More safety information is also requested regarding louvres for the proposed flood storage area, to ensure there is no risk of people or vehicles becoming trapped beneath the building during a flood event.

NSW recommends that the consent authority ensures that the planning proposal is considered against the relevant Ministerial Section 9.1 Directions, including 4.1 – Flooding and is consistent with the NSW Flood Prone Land Policy as set out in the NSW Floodplain Development Manual, 2005 (the Manual). Attention is drawn to the following principles outlined in the Manual which are of importance to the NSW SES role as described above:

- **Zoning should not enable development that will result in an increase in risk to life, health or property of people living on the floodplain.**

  The proposed site becomes isolated and flooded during 1% AEP events, with H5 hazard flows observed in Cambridge Street and Stoney Creek Road, and H3-H4 hazard flows observed at the driveway entrance to the subject site off Cambridge Street[3]. The site also becomes inundated with flooding of up to 1m depth and H5 hazard in a probable maximum flood (PMF)[4], with H6 hazards modelled for the proposed flood chamber beneath the building[5]. All buildings exposed to H6 flood hazard are considered vulnerable to failure. This flood hazard is unsafe for all people and vehicles, and they should not be exposed to this risk.

  As the proposal includes a three-storey medical centre, this proposed use would expose more vulnerable members of the community to these flood hazards. The NSW 2022 Flood Inquiry Recommendation 28 highlights that sensitive uses are known to have a higher risk to life and warrant the consideration of the impacts of even rarer flood events than the 1% AEP flood extent. This includes the impacts of essential

[1] Hurstville LGA Overland Flow Flood Study, 2015
[2] Flood and risk impact assessment, Attachment 1, Figure 1 [B], page 67
[3] Flood and risk impact assessment, pages 28-29
[4] Flood and risk impact assessment, page 27
[5] Flood and risk impact assessment, page 29

services infrastructure disruption on the proposed development. The Inquiry recommends sensitive uses, including aged care facilities are situated on land outside the probable maximum flood (PMF) extent and essential services infrastructure is situated above the flood planning level to minimise disruption. In addition, section K3.1 of the Manual also recommends considering using the PMF as the flood planning level (FPL) for hospitals and critical infrastructure.

The proposed building also includes a large flood chamber between the floor level and the first basement level, providing more than 2000m^3 of flood storage. However, NSW SES has concerns regarding the louvres intended to reduce the risk of someone entering and/or becoming trapped beneath the building during a flood event, especially as modelling shows flood hazards of up to H6 within the chamber during a PMF.[6] NSW SES therefore requests more information due to the high risk to life if someone should become trapped beneath the building during a flood event.

- **Risk assessment should consider the full range of flooding, including events up to the PMF and not focus only on the 1% AEP flood.**

  The proposed site becomes isolated due to high hazard overland flooding impacting adjacent roads during a 1% AEP event, and potentially even prior to a 1% AEP event. It is also noted the flood studies provided do not consider storm events longer than 120 minutes, nor modelling for the likely impacts of climate change. The Gateway Determination Assessment Report also notes that the flood modelling provided does not consider climate change. The 2022 NSW Flood Inquiry recommends climate change is considered when determining the flood risk, including the flood planning level (Recommendation 18). NSW SES therefore recommends undertaking further flood studies and modelling for more frequent events such as for a 5% AEP event, storm events of greater duration than 120 minutes, and climate change impacts.

  It is noted the entry to the basement carpark is located below the PMF level, and the delivery dock area is located below the 1% AEP level[7]. Consideration must be given to the full range of flooding, as larger floods may pose significant risk to the development. This is particularly the case where the depth and/or velocity becomes high hazard for vehicles, people and building stability.

- **Risk assessment should have regard to flood warning and evacuation demand on existing and future access/egress routes. Consideration should also be given to the impacts of localised flooding on evacuation routes.**

  The proposed site is expected to become isolated due to local overland flooding during a 1% AEP event, and potentially prior to this, however modelling has not been

[6] Flood and risk impact assessment, page 29
[7] Flood and risk impact assessment, page 31

provided for more frequent events. The delivery dock area is also located below the 1% AEP flood level.[8]

The site is subject to overland flooding where flood height prediction is not available making response timing very difficult. In such locations, Severe Weather Warnings are the most likely form of advice about the potential for flood producing storms and rainfall. Business owners/operators must be weather aware and act early on publicly broadcast severe weather and flood warnings. However, there is significant uncertainty in rainfall forecasts, including the exact location, timing and total rainfall.

- **In the context of future development, self-evacuation of the community should be achievable in a manner which is consistent with the NSW SES's principles for evacuation. Future development must not conflict with the NSW SES's flood response and evacuation strategy for the existing community.**

  Page 21 of the Gateway Determination Assessment Report identifies that the planning proposal is inconsistent with Ministerial Direction 4.1. The flood modelling provided does not provide sufficient information for evacuation management for the site. Therefore it is recommended that planning proposal is updated to adequately address flooding in the context of potential high density residential development and sensitive uses on the site.

  The proposed driveway for basement carparking does not provide flood-free vehicle access, with flooding of hazards of up to H2 during a 1% AEP event[9] (not accounting for potential flooding increases due to climate change). Basement car parks also have inherent risks to life and property[10] and can often restrict safe evacuation of the occupants. This can be managed through building design, such as crest levels above a certain level (e.g. the PMF) to prevent water ingress and flooding.

  Building designs, especially for sensitive uses, should also consider evacuation strategies for persons with limited mobility. Vertical evacuation using emergency access stairs, as suggested on page 32 of the flood and risk impact assessment, does not accommodate for persons with limited mobility and will therefore directly expose them to flood risk if they are unable to safely evacuate to the proposed refuge above the PMF.

  As detailed further below, a 'Shelter in place' strategy is not an endorsed flood management strategy by the NSW SES for future development.

- **Evacuation must not require people to drive or walk through flood water.**

[8] Flood and risk impact assessment, page 31
[9] Flood and risk impact assessment, page 31
[10] Collier, L. Phillips, B., and Griffin, M. 2017. Basement Development in the Floodplain. Floodplain Management Australia Conference. Newcastle, 2017

Page 62 of the Flood and risk impact assessment states that "a clear path of H2 (which is considered safe for pedestrians) is available", and that "These access/egress points may be used by emergency services". NSW SES reiterates that evacuation must not require people to drive or walk through flood water, and does not support placing the community, emergency services members and volunteers at unnecessary risk by requiring them to travel through flood water. Flood waters can include infectious diseases, sewerage, chemical hazards, electrical hazards, displaced wildlife and debris such as glass and metal that can cause injury.

- **Development strategies relying on deliberate isolation or sheltering in buildings surrounded by flood water are not equivalent, in risk management terms, to evacuation.**

  NSW SES notes that the proposal intends for "vertical evacuation"[11] or on-site refuge to be incorporated as a Flood Emergency Response measure. **'Shelter in place' strategy is not an endorsed flood management strategy by the NSW SES for future development.** Such an approach is only considered suitable to allow existing dwellings that are currently at risk to reduce their risk, without increasing the number of people subject to such risk. The flood evacuation constraints in an area should not be used as a reason to justify new development by requiring the new development to have a suitable refuge above the PMF.

  Other secondary emergencies such as fires and medical emergencies may occur in buildings isolated by floodwater. During flooding it is likely that there will be a reduced capacity for the relevant emergency service agency to respond in these times, and for the proposed site this may not be possible by road due to high hazard flooding on adjacent roads prior to a 1% AEP event. Even relatively brief periods of isolation, in the order of a few hours, can lead to personal medical emergencies that have to be responded to. Building designs which put cars or other property under the refuge area may encourage people to take risks to save these items, and therefore is not preferred for future development that sees an increase in the number of people exposed to the risks.

  It is also noted from page 32 of the Flood and risk impact assessment that "Access and egress to and from the subject site should not be attempted during the 1% AEP or less frequent events". Unfortunately, our experience is that people sheltering in place change their mind after they have been surrounded by flood water or when essential services such as water, power and sewer cease to function. The high hazard flooding on adjacent roads therefore poses a serious risk for anyone attempting to travel to or from the proposed site, such as to attend a medical appointment or visit a residence.

[11] Flood and risk impact assessment, page 31

- **Development strategies relying on an assumption that mass rescue may be possible where evacuation either fails or is not implemented are not acceptable to the NSW SES.**

- **The NSW SES is opposed to the imposition of development consent conditions requiring private flood evacuation plans rather than the application of sound land use planning and flood risk management.**

  The Flood and Risk Impact Assessment suggests on page 6 that "additional flood emergency response measures can also be introduced to manage the residual site risk during an extreme event." It should be noted that the Manual specifically precludes the practice of consent conditions requiring a site plan if that plan is trying to overcome an underlying flood risk that would otherwise be considered too high to permit approval (see Manual Annex L-3). In other words, if the existence of a flood plan is ignored, is the underlying flood risk unacceptable in the context of the proposed development?

  Although NSW SES encourages homes and businesses to be prepared and has developed a home FloodSafe toolkit and a Business FloodSafe toolkit, even well written plans are dependent on human application and often rely on technical support systems. Most plans will rely on the actions of one or more third parties and all plans require regular maintenance and review, and most importantly an ongoing commitment from all participants. These conditions are difficult to implement and are unlikely to be achieved at all in a private ownership context where there is no external audit or monitoring.

  In addition, the Flood Emergency Response Strategy provided states "No attempt should be made to evacuate elsewhere through floodwater by foot or vehicle. Access to the basement carpark should not be attempted during a flood event and lifts should not be used." However, it is not clear whether pedestrian ramps are available for people on lower levels to access areas above the PMF, which would be necessary for people with limited mobility to be able to safely access refuge during a flood event. This is also important to consider in the context of secondary emergencies such as fire and secondary risks such as disruption to essential services such as power and telecommunications as observed during flood events.

- **NSW SES is opposed to development strategies that transfer residual risk, in terms of emergency response activities, to NSW SES and/or increase capability requirements of the NSW SES.**

  The proposed works would increase the population density on a flood affected site, and therefore exposes a greater number of people to the flood risk, particularly vulnerable people. The proposed residential dwellings would also increase the number of hours in the day that people would be on the site, and therefore exposed to the flood risk. The residual risks from this proposal would be transferred to NSW

SES, particularly if people attempt to access or leave the site through high hazard floodwater.

The proposed works will also increase the flood risk for some nearby properties, with increases of up to 20mm on the eastern site of Cambridge Street during a 1% AEP event, and increases of up to 63mm and 82mm for Stoney Creek Road and Cambridge Street during a PMF, including observed increases to flood heights for the properties adjacent to the western boundary of the subject site and on the opposite side of Cambridge Street to the east.[12]

- **Consent authorities should consider the cumulative impacts any development will have on risk to life and the existing and future community and emergency service resources in the future.**

NSW SES provides the following additional site-specific recommendations that need to be considered to minimise the increase in risk to life due to development in flash flood environments:

- **Commercial development (including retail):** All ground floor businesses and retail floors must be above the 1% AEP flood levels and **access to the basement must be above PMF**. There must also be the provision of sufficient readily accessible habitable areas above the PMF to cater for the safety of potential occupants, clients and visitors in commercial development.
- **Sensitive development:** Any childcare facilities, schools, **medical centres,** day hospital within the building must be located with floor levels **above the PMF level.**
- **Making buildings as safe as possible to occupy during flood events:** Ensuring buildings are designed for the potential flood and debris loadings of the PMF so that structural failure is avoided during a flood.
- **Limiting exposure of people to floodwaters:** This can be aided by providing sufficient readily accessible areas above the PMF to cater for potential occupants, clients and visitors. Building security and access should ensure accessibility to habitable areas within the building above the PMF.
- **Car parking: Any additional parking should be above ground level** to facilitate safe and effective vehicular evacuation and have pedestrian access to a podium level above the PMF to increase human safety. Pedestrian evacuation and shelter in place are not appropriate primary flood risk management strategies.
- **Provision of publicly accessible space for the itinerant population in areas surrounding intensive development:** Provision of publicly accessible space or access to space above the PMF, with adequate infrastructure to enable the physically impaired to access such space, that is easily accessible 24 hours a day for seven days a week which is clearly identified for this purpose with associated directional signage.

[12] Flood and risk impact assessment, page 30

- **Reducing human behaviour risks:** Undertaking regular exercising of a building flood emergency response plan similar to a building fire evacuation drill with the provision to allow people from lower floors and off the street to access refuge areas above PMF. This may also include emergency warning notification (or PA) system to reduce risks to the itinerant population as well as occupants and visitors.
- **Providing adequate services so people are less likely to enter floodwaters:** This includes access to ablutions, water, power and basic first aid equipment. Consideration must be given to the availability of on-site systems to provide for power, water and sewage services for the likely flood duration of surrounding areas (which may exceed several hours) plus a further period to provide allowance for restoration of external services.
- **Addressing secondary risks of fire and medical emergencies during floods:** To minimise the increased risk of fire and to reduce both the potential for adverse outcomes in the case of a medical emergency and the risks to those who may aid the patient, Council, DPE, NSW SES, Ambulance NSW and the relevant Health Functional area and fire agency servicing the area, should be consulted to determine appropriate risk management strategies during flooding**.**

You may also find the following Guidelines, originally developed for the Hawkesbury Nepean Valley and available on the NSW SES website useful:

- Reducing Vulnerability of Buildings to Flood Damage
- Designing Safer Subdivisions
- Managing Flood Risk Through Planning Opportunities

Please feel free to contact Claire Flashman via email at rra@ses.nsw.gov.au should you wish to discuss any of the matters raised in this correspondence. The NSW SES would also be interested in receiving future correspondence regarding the outcome of this referral via this email address.

Yours sincerely

Elspeth O'Shannessy
A/Advisor Hawkesbury Nepean Strategy - Future Risk Team Leader
NSW State Emergency Service

Department of Planning and Environment

Our ref: DOC23/388763
Your ref: PP-2021-6630

Ingrid Zhu
Planning Group
Department of Planning and Environment
4 Parramatta Square, 12 Darcy Street
Parramatta NSW 2150

Subject: Exhibition of Planning proposal - 143 Stoney Creek Road, Beverly Hills - PP-2021-6630

Dear Ingrid,

Thank you for the email received 4 May 2023 from Rachel Hughes, Planning Officer requesting comment from the Environment and Heritage Group (EHG) within the Department of Planning and Environment on the subject Planning Proposal at 143 Stoney Creek Road, Beverly Hills.

The planning proposal seeks to amend the Georges River Local Environmental plan (LEP) 2021 to rezone 143 Stoney Creek Road Beverly Hills from SP2 Infrastructure (Public Administration) and R2 Low Density Residential to R4 High Density Residential, introduce corresponding development controls, and introduce "office premises" and "business premises" as additional permitted uses. EHG has reviewed the planning proposal package and provides comments below.

Flooding
The development site is in the upper reaches of Bardwell Creek Catchment along a well-defined flow path and a conveyance system of 1.98m x 1.22m box culvert owned by Sydney Water. The site would be flood affected under frequent to rare events based on the flood modelling results of the overland flow study. The expected floodwater depth under baseline conditions during a 1% AEP Event would be around 0.3m to 0.5m and higher, whilst it would be 1m and higher under the PMF Event.

The proponent revised and updated the completed modelling works by using the site-specific data. The updated models were used for the assessment of flooding conditions under baseline conditions and the post-development scenario of the site. The outputs from the updated model under baseline conditions are found to be comparable with the outputs from the previous model although some minor improvements in flooding conditions are noted by using the site-specific data. The modelling results indicate that the existing and proposed developments would act as a barrier, which would increase floodwater depth to some minor extent along the southern edge compared to the northern edge of the site. The modelling results indicate that the site would be subject to high hazards with category H5 during the PMF Event.

In relation to the concept residential flat building design, the FPL (flood planning level) would be the PMF level, and the site would have a three level basement carpark. The FPL for the basement carpark entry would be at the 1% AEP level plus 0.3m freeboard, which is deviated from the 1% AEP level plus 0.5m freeboard or the PMF level (i.e., minimum of these levels to be adopted). The modelling results show that the difference between the 1% AEP flood level and the PMF level is in the order of 0.5m. The submitted reports from the proponent indicated that the FPL (i.e., 1% AEP flood level plus 0.3m freeboard) at the basement carpark entry has been positioned in accordance with Council's requirements. The reports also mentioned if someone gets trapped within the

basement carpark during an extreme or major event, there would be opportunities to escape using the vertical evacuation arrangements (i.e., emergency access stairs).

The proposed FPL at the basement carpark entry may pose considerable risks by allowing floodwater to enter the basement carpark and potentially trapping visitors and users of the site under major and extreme flooding events. The FPL at the entry to the basement carpark should be sited at the PMF level to eliminate (and /or minimise) potential flooding impacts and risks.

Consistency with Ministerial Direction 4.1 - Flooding
Consistency with Ministerial Direction 4.1 – Flooding must be demonstrated. Only a small part of the site is currently zoned low density residential with most of the site zoned SP2-Public Administration. The proposed R4-high density zoning has the potential to expose more residents to flood risk which appears to be inconsistent with the direction.

Should you have any queries regarding this matter, please contact Shaun Hunt, Senior Conservation Planning Officer via shaun.hunt@environment.nsw.gov.au or 02 8275 1617.

Yours sincerely,

S. Harrison

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