

Planning and Environment

Report No. PE40/2020

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SUBJECT: *18/2018/1 - PLANNING PROPOSAL TO REZONE LAND AND APPLY ADDITIONAL PERMITTED USE AT STONEBRIDGE DRIVE CESSNOCK*

RESPONSIBLE OFFICER: *Acting Strategic Planning Manager - Iain Rush*

APPLICATION NUMBER:	18/2018/1/1
PROPOSAL:	Planning Proposal – Stonebridge Drive, Cessnock
PROPERTY DESCRIPTION:	Part of Lots 1000 and 1009 DP1234890
PROPERTY ADDRESS:	Stonebridge Drive, Cessnock
ZONE: (CURRENT)	RE2 Private Recreation
ZONE (PROPOSED)	R2 Low Density Residential
OWNER:	Cessnock Golf Club Ltd.
PROPONENT:	Monteath & Powys

SUMMARY

The purpose of this Report is to advise Council of feedback received regarding the 'Stonebridge Drive Cessnock' Planning Proposal following agency consultation and provide a recommendation to not proceed with the proposal on the basis of this feedback.

Specifically, Council has received an objection from the Biodiversity and Conservation Division (BCD) of the Department of Planning, Industry and Environment (DPIE) that the proposal is inappropriate on the basis of flood behavior and risk.

In this instance, Council does not have delegation to make the amendment to the *Cessnock Local Environmental Plan 2011* (the LEP) on the basis the proposal is inconsistent with the flood-related Section 9.1 Ministerial Directions and there being outstanding written objections from public authorities.

RECOMMENDATION

1. That Council does not proceed with the 'Stonebridge Drive Cessnock' Planning Proposal.
2. That Council notifies the Department of Planning, Industry and Environment of its decision pursuant to Section 3.35 of the *Environmental Planning and Assessment Act 1979*.

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**BACKGROUND**

The site at Stonebridge Drive Cessnock is currently zoned RE2 Private Recreation with 'hotel or motel accommodation' as an additional permitted use. The site is an existing staged development based around a golf course. **Figure 1** shows the lots (outlined in red) subject to the Planning Proposal.



Figure 1: Subject Land

The Planning Proposal, refer to **Enclosure 1**, seeks to amend the LEP to rezone part of Lots 1000 and 1009 DP 1234890 at Stonebridge Drive Cessnock from RE2 Private Recreation to R2 Low Density Residential. The proposal also seeks to include multi dwelling housing as an additional permitted use and introduce a minimum lot size of 450m², consistent with the proposed R2 Low Density Residential Zone. The site already has an additional permitted use of hotel or motel accommodation.

The proposal was reported to Council for consideration on 12 December 2018. At the meeting, Council resolved to forward the proposal to DPIE for Gateway determination, subject to the removal of the existing additional permitted use, hotel and motel accommodation.

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A Gateway determination was issued by DPIE in relation to the proposal on 21 July 2020, following several separate requests for additional information. The Gateway determination was subject to several conditions, including consultation with the Biodiversity and Conservation Division (BCD) of DPIE.

Agency consultation commenced on 7 August 2020 and a response from BCD was received on 28 September 2020. BCD's correspondence, refer to **Enclosure 2** outlines significant concerns with the proposal in relation to flooding and flood risk.

Council's assessment timeline for the Planning Proposal is provided in **Enclosure 3**.

REPORT/PROPOSAL

The Proposal was initially supported on its strategic merit, given the site's relative proximity to the Cessnock Town Centre, access to all essential utilities and services, frontage to established roads and compatibility with surrounding development.

During the pre-gateway determination phase, DPIE requested a technical report with flood modelling to address concerns regarding development on flood prone land. A flood report was subsequently prepared by the proponent and submitted to Council on 3 June 2020 for consideration.

At this stage, the proposal was considered by Council to have merit, as it generally complied with the Cessnock City Council Flood Risk Management Policy, specifically on the basis that the Greenfield Urban Release Area would be located above the 1% AEP. Therefore, the Proposal was referred to agencies for their review.

As part of the agency consultation process, BCD completed a more rigorous assessment of the flooding impacts and risk assessment in accordance with the NSW Floodplain Development Manual 2005. From the perspective of land-use intensification on flood prone land, implications of introduced fill on downstream properties and risk to life, the Proposal was deemed by BCD to be unacceptable.

Council provides advice to proponents in good faith, but ultimately can only provide advice on the basis of information at hand. Council must consider the technical expertise of external agencies and, in this instance, acknowledge the significant risk of flooding associated with the proposal.

It is also important to note that the legislation that relates to flooding is presently under review by the State government to ensure development considers the probable maximum flood (PMF) event, rather than the 1% AEP. In this regard, the intensification of residential development within the site will not be compliant in a PMF event.

Objections raised by BCD regarding the proposal

A comprehensive list of concerns were raised by BCD in relation to indirect flood impacts on surrounding properties, safe evacuation measures and suitability of land use intensification. The issues highlighted in relation to flood risk are provided as follows.

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1. The planning proposal is inconsistent with the Ministerial Direction No. 4.3(5) Flood Prone Land

Ministerial Direction No. 4.3(5) Flood Prone Land, issued under section 9.1(2), of the Environmental Planning and Assessment Act 1979 states that land must not be rezoned from recreational to residential use if it is within the flood planning area.

In this case, the subject site is completely within the flood planning area identified in the Cessnock City (Black Creek) Floodplain Risk Management Study and Plan 2016. Approximately half of the site is impacted by the 1% AEP flood with the remaining site area being below flood planning level and also subject to flooding.

Seeking an exemption to this direction would be unreasonable based on the following:

- Intensification of land use results in an unreasonable risk to property and life;
- The existing recreational land plays an important role in providing floodplain storage. Rezoning of the site for residential purposes when unreasonable changes in hydraulic behaviour and flood hazard category are proposed is therefore inappropriate: and
- The extent of inconsistency is not considered to be of minor significance, as the entire rezoning area lies within the flood planning area.

2. The planning proposal changes the hydrology and hydraulic behaviour of the Floodplain

The proposal will result in a significant loss of floodplain storage as it is planned to fill the entire footprint of planned residential areas to the flood planning level. The use of fill to change flood planning classification on development sites is inconsistent with Appendix J 2.1.2(b) & (g) of the NSW Floodplain Development Manual 2005.

The proposal will also change the alignment, hazard and behaviour of a floodway. It is proposed to create a new floodway along Stonebridge Drive, adjacent to the proposed residential areas that will be filled. This will change the flood behaviour in the vicinity of the site from backwater flood storage to a combination of floodway and low hazard flood fringe.

The hazard category in parts of the new floodway are estimated to increase from low hazard H2 to high hazard H4 in the 1% AEP flood. This has the potential to cause scour in the floodway and for overflows to impact the adjacent roadway in events larger than the design flood event.

The flood impact assessment states that the proposal will not result in adverse impacts, however, this justification is unsubstantiated as the report does not adequately define or assess the changes of hydraulic behaviour.

The introduction of extensive fill and creation of floodway channels to change flood behaviour is not appropriate for a site-specific flood study given the broader implications on the floodplain.

Potential impacts from an increase from low to high hazard in the 1% AEP flood such as scour in the floodway or overflows onto the adjacent roadway are unacceptable given the likely impacts to surrounding residents and Council's resources.

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3. Part of the area proposed as residential zoning will be a high hazard floodway

The flood maps provided in the flood impact assessment show a proposed diversion Channel or floodway along Stonebridge Drive to allow for flows to pass beside the fill platform.

The rezoning maps show this floodway as being within the residential zone. BCD have indicated that floodway areas should be zoned as infrastructure or E2 zones to prevent further encroachment and to ensure that residential lots are provided with adequate buildable land area.

The dedication of a high hazard floodway within the proposed residential footprint reinforces the evidence that the proposed rezoning is unsuitable.

4. The proposal would create a low flood island

Flood free access is not provided to the subject site. The PMF flood fully inundates the land by up 1.23m of category H3 hazard flood waters.

The flood report indicates that these flood waters would be a low hazard and passable by vehicles. This approach contradicts the Cessnock DCP which requires flood free access to each resulting allotment in a proposed subdivision. Flood free access cannot be provided without the upgrade of public road and drainage infrastructure, which may burden Council or Transport for NSW and subsequently impact surrounding areas.

Future proposed access roads would be inundated to varying extent in the 1% AEP event and be impassable in larger floods. The NSW Floodplain Development manual indicates that people are most likely to evacuate their homes once the floor level becomes impacted. As the planning proposal will raise residential areas above the flood planning levels, but leave access roads as flood affected, residents will be likely to evacuate well after access roads become inundated and possibly impassable. This would create a very hazardous situation for future residents.

Under Section L6.8 of the NSW Floodplain Development Manual effective access in floods larger than the flood planning level must be considered. If the planning proposal were to proceed, it would likely result in increased requirements for government spending on flood mitigation measures, infrastructure or services as government agencies would need to address issues with evacuation routes and emergency flood services. This contradicts Clause 4.3(6)(d) of the Ministerial Direction issued in 2007 under section 9.1(2), of the Environmental Planning and Assessment Act 1979.

Whilst filling of the land will render the site 'flood free' in respect to the flood planning level, the property will become isolated as access roads will be flooded. The proposed rezoning would result in residential development being promoted in an area which would be classified as a low flood island using the SES Floodplain Risk Management Guideline– Flood Emergency Response Planning Classification of Communities. During flooding, such an area is first cut off from access and then inundated. It would not be safe to leave the site under these conditions.

Rescue by boat, helicopter or larger vehicles may therefore be necessary if the flood island is completely inundated in rarer floods. This scenario could cause significant additional danger to personal safety and places the resources lives at risk.

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The flood impact assessment provides that residents could shelter in place in two (2) storey dwellings during a flood event until the floodwaters recede. This would require all future dwellings to be built as two (2) storey and have sufficient structural integrity to withstand a PMF flood.

Shelter in place under such circumstances is a last resort option and should not be used to justify a Planning Proposal. This approach would require strict site specific development controls to ensure that buildings were constructed to function as safe refuges, meaning additional building and certification costs would be incurred.

5. Residential areas will be exposed to unacceptable flash flooding risks

The flood report indicates that a PMF flood can develop in the proposed residential area and flood waters could rise by one (1) metre in less than an hour. This would not allow adequate time for evacuation to take place and vertical evacuation to shelter in place would remain the only alternative.

No flood warning system exists in this area and if one was installed it would likely need to be a siren based system which would not give sufficient warning time for protective actions. The residual risk posed by this type of flooding is greater than would be considered acceptable for the rezoning of land for residential purposes.

6. The planning proposal would result in additional population being established below a declared dam

The proposed rezoning is located downstream of the Mount View Detention Basin which is a declared dam under the Dam Safety Act 2015. The flood report states that the risk of this dam failing is not changed by the planning proposal because the site is already impacted by deep flooding in a PMF event and the use of fill on the site will result in a minimal increase in PMF levels.

This assessment does not consider the key risks of developing residential areas downstream of a declared dam. Dam failure risks relate to the population placed at risk, whereby the Planning Proposal will support an increase in population downstream of a large dam.

Changes to the population at risk from failure of Mount View Detention Basin is required rather than ascertaining changes to flood levels in extreme events. Accordingly, the Planning Proposal does not consider the increased level of risk associated with the potential failure of Mount View Detention Basin.

7. Drainage issues have not been adequately assessed

Insufficient detail has been provided to determine whether the proposed on-site detention is adequate to mitigate the increased runoff from the development site.

A proposed rezoning of this nature would typically require the preparation of a masterplan to indicate how flows would be managed and how on-site detention would be provided.

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Potential Impacts of the Proposal

As outlined above, the proposal will change the alignment, hazard and behaviour of a floodway. Whilst the changes in hydraulic behaviour have not been appropriately identified, it is anticipated that the creation of a new floodway will at least cause scouring and overflows to the adjacent roadway.

The Proposal will place future residents at risk of flood inundation, unsafe evacuation procedures and dam failure. Council and other state agencies are likely to be burdened by public road and drainage infrastructure upgrades and resourcing pressures to provide emergency flood services.

Supporting a proposal of this nature would also set an undesirable precedent and site-specific controls would need to be adopted to address risk. Imposing development restrictions in addition to the flood planning level is neither a suitable or effective approach to risk management.

Recommendation not to Proceed with the Proposal

Following a comprehensive assessment of the proposal and responses received from agency consultation, it has been established that the rezoning of the site for residential purposes is unsuitable.

Despite there being initial strategic merit to investigate the proposal, it has been determined that the rezoning is unacceptable due to implications on the broader floodplain, government assets and resources and identified risk to future residents. In addition, the level of risk associated with the proposal cannot be reasonably justified when there is an adequate supply of residential land in the Cessnock LGA.

Council should maintain a consistent approach to managing flood risk as cumulative impacts from similar individual developments (i.e. proposals which involve the loss of flood storage due to filling of the floodplain) will have significant impact on flood behaviour and local flood plans.

In light of the above, the request to include multi dwelling housing as an additional permitted use under Schedule 1 of the LEP is also not supported given the larger population that would be exposed to risk.

Proponent Response – 22 October 2020

On 22 October 2020, the proponent submitted a response to BCD's objection. Strategic Planning staff have reviewed the proponent's response and remain of the opinion the proposal presents an unacceptable risk to life and should not proceed. A copy of the proponent's response is included as **Enclosure 4**.

The proponent has requested a full refund of fees paid to date in respect of the planning proposal. Council has an adopted Fees and Charges Schedule and charges proponents for its time and resources to process proposals, whether they proceed to finalisation or not. If the proponent is entitled to a partial refund of monies not spent, this will be returned to the proponent in accordance with Council's adopted Fees and Charges Schedule.

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OPTIONS

Option 1

1. That Council not proceed with the 'Stonebridge Drive Cessnock' Planning Proposal.

This is the recommended option as the proposal does not have merit.

Option 2

Progress the Planning Proposal and respond to agency consultation. This option is not recommended as there is an outstanding written objection from a public authority.

CONSULTATION

Consultation has occurred with the relevant public authorities, including Biodiversity Conservation Division, NSW Rural Fire Service and the Department of Primary Industries, as specified in the Gateway determination.

It is assumed that the NSW Rural Fire Service and the Department of Primary Industries have no interest in the proposal as responses were not received within the 21 day consultation period.

As outlined above, the Biodiversity Conservation Division have raised significant concerns with the Planning Proposal in respect to indirect flood impacts on surrounding properties, safe evacuation measures and suitability of land use intensification.

The issues raised are unable to be resolved, thus validating the subject site is not suitable for residential purposes.

STRATEGIC LINKS

a. Delivery Program

A Sustainable and Healthy Environment: Objective 3.1 Protecting and Enhancing the Natural Environment and the Rural Character of the Area.

b. Other Plans

Hunter Regional Plan 2036

The Planning Proposal is inconsistent with Direction 16 of the Hunter Regional Plan 2036 (HRP), which aims to '*increase resilience to hazards and climate change*'.

Cessnock Local Strategic Planning Statement 2036

The Planning Proposal is inconsistent with the Cessnock Local Strategic Planning Statement 2036, specifically Planning Priority 21 '*Developments minimise environmental impacts and respond to site environmental characteristics and natural hazards*'. Planning Principle no.6 under this Planning Priority states that '*The intensification of land-uses on sites with significant natural hazards will generally not be supported*'. Accordingly, Council staff are recommending not to proceed with the Planning Proposal as it would result in the intensification of land uses on a site that is significantly flood affected.

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Consistency with State Environmental Planning Policies

The Proposal is considered to be consistent with the relevant State Environmental Planning Policies (SEPPs). An assessment of relevant SEPPs against the Planning Proposal is provided in the accompanying Planning Proposal.

Ministerial Section 9.1 Directions

Section 9.1 of the *Environmental Planning & Assessment Act 1979* enables the Minister for Planning and Environment to issue directions that Council must address when preparing planning proposals to amend a local environmental plan. An assessment of relevant 9.1 Directions are provided in the accompanying Planning Proposal. The Proposal is inconsistent with the relevant Ministerial Directions, specifically Direction 4.3(5), Flood Prone Land.

IMPLICATIONS

a. Policy and Procedural Implications

This Report has regard to the provision of the *Environmental Planning and Assessment Act 1979* and associated Regulations.

b. Financial Implications

The cost of the Planning Proposal is funded by the proponent in accordance with Council's Fees and Charges Schedule. An invoice for the phase 1 fee was issued on 16 November 2018. The phase 2 fee is required after issue of a Gateway determination (this has not been paid). There are no financial implications if Council does not proceed with the Planning Proposal.

The proponent has requested a full refund of fees paid to date in respect of the planning proposal. Council has an adopted Fees and Charges Schedule and charges proponents for its time and resources to process proposals, whether they proceed to finalisation or not. If the proponent is entitled to a partial refund of monies not spent, this will be returned to the proponent in accordance with Council's adopted Fees and Charges Schedule.

As highlighted in the comments received by BCD, continuation of the Planning Proposal will have financial implications for Council in respect to flood mitigation works.

c. Legislative Implications

This Report has regard to the provisions of the *Environmental Planning & Assessment Act 1979* and its Regulations and the *Standard Instrument (Local Environmental Plans) Order 2006* (as amended).

d. Risk Implications

The flooding risks associated with the Planning Proposal cannot be addressed satisfactorily. The Planning Proposal would result in indirect flood impacts on surrounding properties, unsafe evacuation measures and unreasonably burden emergency services and Council's resources.

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e. Environmental Implications

The Planning Proposal does not adequately address the likely impacts of the proposed flood mitigation strategy on the alignment, hazard and behaviour of the floodway.

Notwithstanding, the increase in hazard within the new floodway has the potential to cause scour and associated overflow.

f. Other Implications





Nil

CONCLUSION

Following consultation with relevant agencies, it is evident that there are significant issues with the Planning Proposal. The rezoning of the land for residential purposes is not suitable due to indirect flood impacts on surrounding properties, unsafe evacuation measures and unreasonable burden placed on emergency flood services and Council's resources.

It is considered that not proceeding with the Proposal is the logical outcome.

ENCLOSURES

- 1  BCD agency consultation response
- 2  Proponent's response to BCD's comments
- 3  Timeline for Planning Proposal
- 4  Current Planning Proposal (Provided under Separate Cover)



Planning,
Industry &
Environment

Our ref: DOC20/644804-4

Your ref: 18/2018/1/1

Holly Taylor

Strategic Planning Officer
Cessnock City Council
holly.taylor@cessnock.nsw.gov.au

Dear Ms Taylor

Planning proposal – Part lots 1000 and 1009 DP 1234890, Stonebridge Drive, Cessnock

I refer to an email from Emma Brown dated 7 August 2020 requesting comment from Biodiversity and Conservation Division (BCD) of the Department of Planning, Industry and Environment in relation to a planning proposal at Stonebridge Drive, Cessnock involving part lots 1000 and 1009 DP 1234890.

With respect to Aboriginal cultural heritage, BCD is no longer the relevant agency for Aboriginal cultural heritage matters. From 1 July 2020, the regulation of Aboriginal cultural heritage transferred to Heritage NSW. Any enquiries, assessments, requests for comment or matters relating to Aboriginal cultural heritage should now be sent to heritagemailbox@environment.nsw.gov.au

BCD's recommendations in relation to flooding and flood risk are provided in **Attachment A** and detailed comments are provided in **Attachment B**. BCD does not have any comments in relation to biodiversity.

If you require any further information regarding this matter, please contact Anne Browett, Senior Conservation Planning Officer, on 4927 3160 or via email at rog.hcc@environment.nsw.gov.au

Yours sincerely

A handwritten signature in black ink that reads 'Joe Thompson'.

Joe Thompson
Director Hunter Central Coast Branch
Biodiversity and Conservation Division

28 September 2020

Enclosure: Attachments A and B

Attachment A

BCD's recommendations

**Planning proposal – Part lots 1000 and 1009 DP 1234890, Stonebridge
Drive, Cessnock**

Flooding and flood risk recommendations

1. BCD notes that the proposal is inconsistent with Ministerial Direction No. 4.3(5) Flood Prone Land and the requirements of this direction should be considered in any further consideration of the proposal.
2. The proposed placement of large areas of fill and creation of floodway channels to change flood behaviour should only be considered as part of a broad-scale floodplain risk management plan and study. Actions such as this may result in cumulative impacts and impacts to off-site areas that are not identified by a site-level assessment.
3. BCD notes that floodway areas are incompatible with residential land use. This should be considered during any further assessment of the proposal.
4. BCD notes that the proposal does not have flood free access and would create a low flood island. The proposal is therefore inconsistent with the NSW Floodplain Development Manual, Cessnock DCP, Cessnock City (Black Creek) Floodplain Risk Management Study and Plan 2016 and Ministerial Direction No. 4.3 Flood Prone Land. Flood free access cannot be provided without the upgrade of public road and drainage infrastructure which may burden Council or Roads and Maritime Services and impact other areas. These issues should be observed in any further consideration of the proposal.
5. BCD notes that high hazard flooding can develop very quickly in the proposed development area and it is unlikely that adequate mitigation measures can be employed at the site to reduce this risk to an acceptable level. These issues should be observed in any further consideration of the proposal.
6. If the planning proposal progresses further, the proponent should assess the risks to the changes in population at risk from the failure of Mount View Detention Basin.
7. If the proposal progresses further, the proponent should prepare a drainage masterplan to show how stormwater flows would be managed and treated so that impacts to adjacent and downstream areas are minimised.

Attachment B

BCD's detailed comments

Planning proposal – Part lots 1000 and 1009 DP 1234890, Stonebridge Drive, Cessnock

Flooding and flood risk

The proposal seeks to rezone a portion of Lot 1009, DP12945 from RE2 to R2 to support a future residential subdivision. The site is covered by the Cessnock City (Black Creek) Floodplain Risk Management Study and Plan 2016 (the FRMS&P) which defines the entire site as being within the flood planning area. A flood impact assessment was prepared for the proposal by Cardno and is dated 3 June 2020.

BCD has assessed the rezoning proposal against relevant aspects of the Ministerial Direction issued under Section 9.1(2) of the *Environmental Planning and Assessment Act 1979*, Cessnock Council's Development Control Plan (DCP), the NSW Floodplain Development Manual 2005 and the FRMS&P. BCDs comments and recommendations are detailed below.

1. The planning proposal is inconsistent with the Ministerial Direction No.4.3(5) Flood Prone Land

Ministerial Direction No. 4.3(5) Flood Prone Land, issued in 2007 under section 9.1(2), of the *Environmental Planning and Assessment Act 1979* states that land must not be rezoned from rural to residential uses if it is within the flood planning area.

The subject site is completely within the flood planning area identified in the FRMS&P. Approximately half of the site is impacted by the 1% Annual Exceedance Probability (AEP) flood with the remaining site area being below flood planning level and subject to more frequent flooding.

The provisions of the planning proposal that are inconsistent with the Ministerial Directions are not considered to be of minor significance, as the entire proposed rezoning area lies within the flood planning area.

Recommendation 1

BCD notes that the proposal is inconsistent with Ministerial Direction No. 4.3(5) Flood Prone Land and the requirements of this direction should be considered in any further consideration of the proposal.

2. The planning proposal changes the hydrology and hydraulic behaviour of the floodplain

The proposal will result in a significant loss of floodplain storage as it is planned to fill the entire footprint of planned residential areas to the flood planning level. Much of the proposed filled area is identified as floodplain storage in the FRMS&P. The use of fill to change flood planning classification on development sites is inconsistent with Appendix J2.1.2(b) &(g) of the NSW Floodplain Development Manual 2005.

The proposal will also change the alignment, hazard and behaviour of a floodway. It is proposed to create a new floodway along Stonebridge Drive, adjacent to the proposed residential areas that will be filled. This will change the flood behaviour in the vicinity of the site from backwater flood storage to a combination of floodway and low hazard flood fringe. The hazard category in

parts of the new floodway are estimated to increase from low hazard H2 to high hazard H4 in the 1% AEP flood. This has the potential to cause scour in the floodway and for overflows to impact the adjacent roadway in events larger than the design flood event.

The flood impact assessment states that the proposal will not result in adverse impacts, however; the assessment does not adequately define or assess the changes of hydraulic behaviour.

Recommendation 2

The proposed placement of large areas of fill and creation of floodway channels to change flood behaviour should only be considered as part of a broad-scale floodplain risk management plan and study. Actions such as this may result in cumulative impacts and impacts to off-site areas that are not identified by a site-level assessment.

3. Part of the area proposed as residential zoning will be a high hazard floodway

The flood maps provided in the flood impact assessment show a proposed diversion channel/floodway along Stonebridge Drive to allow for flows to pass beside the fill platform. The rezoning maps show this floodway as being within the residential zone. Floodways should be zoned as infrastructure or E2 zones to prevent further encroachment and to ensure that residential lots are provided with adequate buildable land area. The size of the floodway is not detailed in the provided report.

Recommendation 3

BCD notes that floodway areas are incompatible with residential land use. This should be considered during any further assessment of the proposal.

4. The proposal would create a low flood island

The flood maps provided in the flood impact assessment show that the site is surrounded by flood waters in a 1% AEP flood. The PMF flood fully inundates the land by up 1.23m of category H3 hazard flood waters.

The assessment indicates that these flood waters would be a low hazard and passable by vehicles. This approach contradicts the Cessnock DCP which requires flood free access to each allotment in a subdivision.

Each of the proposed access roads would be inundated to varying extent in the 1% AEP event and impassable in larger floods. The NSW Floodplain Development manual indicates that people are most likely to evacuate their homes once the floor level becomes impacted. As the planning proposal will raise residential areas above the flood planning levels, but leave access roads as flood affected, residents will be likely to evacuate well after access roads become inundated and possibly impassable. This would create a very hazardous situation for residents of the subdivision.

Under Section L6.8 of the NSW Floodplain Development Manual effective access in floods larger than the flood planning level must be considered. If the planning proposal proceeds, it would likely result in increased requirements for government spending on flood mitigation measures, infrastructure or services as government agencies would need to address issues with evacuation routes and emergency flood services. This contradicts Clause 4.3(6)(d) of the Ministerial Direction issued in 2007 under section 9.1(2), of the *Environmental Planning and Assessment Act 1979*

The proposed rezoning would result in residential development being promoted in an area which would be classified as a low flood island using the SES Floodplain Risk Management Guideline

– Flood Emergency Response Planning Classification of Communities. During flooding, such an area is first cut off from access and then inundated. It would not be safe to leave the development under these conditions.

The flood impact assessment indicates that residents could shelter in place in two storey dwellings during flooding until the floodwaters recede. This would require all residences to be built as two storey and have sufficient structural integrity to could withstand a PMF flood. Shelter in place under such circumstances is a last resort option and should not be used to justify rezoning. Such an approach would require strict site specific development controls to ensure that buildings were constructed to be safe refuges and additional building and certification costs would be incurred. The requirement for additional development controls is contrary to the provisions of the Section 4.3(8) of the Ministerial Direction on flood prone land and Appendix J6 of the NSW Floodplain Development Manual. In addition, the FRMS&P outlines that development controls should be universal across the flood plain and highlighted a number of areas where council had previously been required to insert specific DCP controls to manage flood risk.

Recommendation 4

BCD notes that the proposal does not have flood free access and would create a low flood island. The proposal is therefore inconsistent with the NSW Floodplain Development Manual, Cessnock DCP, Cessnock City (Black Creek) Floodplain Risk Management Study and Plan 2016 and Ministerial Direction No. 4.3 Flood Prone Land. Flood free access cannot be provided without the upgrade of public road and drainage infrastructure which may burden Council or Roads and Maritime Services and impact other areas. These issues should be observed in any further consideration of the proposal.

5. Residential areas will be exposed to unacceptable flash flooding risks

The flood impact assessment indicates that a PMF flood can develop in the proposed residential area and flood waters could rise by one metre in less than an hour. This would not allow adequate time for evacuation to take place and vertical evacuation to shelter in place would remain the only alternative. No flood warning system exists in this area and if one was installed it would likely need to be a siren based system which would not give sufficient warning time for protective actions. The residual risk posed by this type of flooding is greater than would be considered acceptable for rezoning to a residential use.

Recommendation 5

BCD notes that high hazard flooding can develop very quickly in the proposed development area and it is unlikely that adequate mitigation measures can be employed at the site to reduce this risk to an acceptable level. These issues should be observed in any further consideration of the proposal.

6. The planning proposal would result in additional population being established below a declared dam

The proposed rezoning is located downstream of the Mount View Detention Basin which is a declared dam under the *Dam Safety Act 2015*. The flood impact assessment found that the risk of this dam failing is not changed by the planning proposal because the site is already impacted by deep flooding in a PMF event and the use of fill on the site will result in a minimal increase in PMF levels. This assessment does not consider the key risks of developing residential areas downstream of a declared dam.

Dam failure risks relate to the population placed at risk. Increasing the population downstream of a large dam increases the level of risk. The proposed rezoning requires assessment of

changes to population at risk from failure of Mount View Detention Basin rather than the provided assessment of changes to flood levels in extreme events.

Recommendation 6

If the planning proposal progresses further, the proponent should assess the risks to the changes in population at risk from the failure of Mount View Detention Basin.

7. Drainage issues have not been adequately assessed

BCD cannot assess if the proposed on-site detention is adequate to mitigate the increased runoff from the development site as the flood impact assessment does not provide enough information. Rezoning of this nature would typically require development of a masterplan that would indicate how flows would be managed and how on-site detention would be provided.

Recommendation 7

If the proposal progresses further, the proponent should prepare a drainage masterplan to show how stormwater flows would be managed and treated so that impacts to adjacent and downstream areas are minimised.

Monteath
& Powys

M & P

Our Ref: 10/0003 JC:kd

26 October 2020

General Manager
Cessnock City Council
PO Box 152
CESSNOCK NSW 2325

ATTENTION: Holly Taylor

Dear Holly

**RE: STONEBRIDGE DRIVE, CESSNOCK
PLANNING PROPOSAL – PART LOTS 1000 AND 1009 DP 1234890**

In relation to the planning proposal for Stonebridge Drive, Cessnock on part Lots 1000 and 1009 DP 1234890 (Department Ref: PP_2018_CESSN_003_00) and the recent email sent by Holly Taylor on 28 September 2020 regarding: Council not seeing any merit in continuing to progress the planning proposal.

Monteath & Powys acknowledges that Cessnock City Council's position has changed in relation to the planning proposal based on flood risk analysis. While disappointed, we respect Council's recommendation to no longer support the planning proposal. In response to Council's request, we provide the following comments to the Biodiversity and Conservation Division (BCD) agency response dated 28 September 2020.

Flooding and Flood Risk Recommendations

- 1. BCD notes that the proposal is inconsistent with Ministerial Direction No. 4.3(5) Flood Prone Land and the requirements of this direction should be considered in any further consideration of the proposal.**

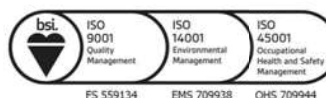
Whilst the site could be considered to be inconsistent with Ministerial Direction No. 4.3(5) Flood Prone Land, it is our opinion that the Ministerial Direction allows for a planning proposal to be inconsistent. If the relevant planning authority can satisfy the Director-General (or an officer of the Department nominated by the Director-General) that:

- a) The planning proposal is in accordance with a Floodplain Risk Management Plan prepared in accordance with the principles and guidelines of the Floodplain Development Manual 2005; or
- b) The provisions of the planning proposal that are inconsistent are of minor significance.

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Justification to the Direction, was previously provided to Council. A Flood Impact Assessment (FIA) prepared by Cardno was submitted to Council. It was peer reviewed by Council's engineer and Council's senior strategic planner to Council's satisfaction on 3 June 2020. At this time Council decided there was significant justification to proceed to Gateway.

The Ministerial Direction applies to the Flood Planning Area. The Flood Planning Area is defined as the area below the Flood Planning Level and thus subject to flood for the design 1% AEP event.



Extract from Black Creek (Cessnock City) Floodplain Risk Management Study and Plan – Showing
Approximate Rezoning Location Over 1% AEP Event Flood Extent

As per the BCD comments, only half the site is impacted by the 1% AEP, which contradicts BCD other comment that the entire site is completely within the Flood Planning Area. The depth of flooding within the PP is shallow and with minor filling, the modelling in the Flood Impact Assessment showed that the residential land will be above the 1% AEP and hence outside the Flood Planning Area.

It appears that the site is being looked unfavourably for the extent and risk of flooding in events above the requirements of the flood planning area, that have an extremely unlikely chance of occurring.

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2. ***The proposed placement of large areas of fill and creation of floodway channels to change flood behaviour should only be considered as part of a broad-scale floodplain risk management plan and study. Actions such as this may result in cumulative impacts and impacts to off-site areas that are not identified by a site-level assessment.***

Despite the loss of floodplain storage with site filing, the proposed arrangement results in a maximum 1% AEP flood level increase of 0.03 metres on Stonebridge Drive and negligible increase (<0.01 metres) elsewhere in the floodplain (as shown in Figure 53 of Appendix B and described in Section 4.1.2 of the report). This increase on Stonebridge Drive is considered to be within typical acceptable bounds for a road reserve and does not result in a significant increase in hazard or a velocity depth product that exceeds $0.4\text{m}^2/\text{s}$.

Regarding the new floodway, although the hazard reaches H4 due to significant depth towards the northern extent, the velocity is low ($<0.5\text{m/s}$) and would not scour turf.

3. ***BCD notes that floodway areas are incompatible with residential land use. This should be considered during any further assessment of the proposal.***

The floodway has been nominated as 8 metres wide in Section 4.1.1 of the report. It is agreed that this area is incompatible with residential land use. This floodway area could be removed from the planning proposal and left as RE2 land or zoned as infrastructure.

4. ***BCD notes that the proposal does not have flood free access and would create a low flood island. The proposal is therefore inconsistent with the NSW Floodplain Development Manual, Cessnock DCP, Cessnock City (Black Creek) Floodplain Risk Management Study and Plan 2016 and Ministerial Direction No. 4.3 Flood Prone Land. Flood free access cannot be provided without the upgrade of public road and drainage infrastructure which may burden Council or Roads and Maritime Services and impact other areas. These issues should be observed in any further consideration of the proposal.***

The hazard level surrounding the site in the 1% AEP is Low Level - H1 - Generally safe for vehicles people and buildings, this is for all for flood events up to and including the Flood Planning Area flood event being the 1% AEP. The development site could be accessed without the flooding proposing an unacceptable risk. This is showing in both the Flood Impact Assessment and the Black Creek (Cessnock City) Floodplain Risk Management Study and Plan.

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While it is acknowledged that the development is within a low flood island in the larger events and that the shelter in place strategy is a last resort. However, with sufficient education and signage that encourages residents to seek shelter rather than evacuate and given the relatively short duration of site flooding, the risk to life in rare events such as the PMF could be mitigated.

On site refuges structurally designed to withstand PMF floodwaters are an accepted approach in some Council areas (e.g. City of Newcastle) and it appears that this approach has been taken for the adjacent development on the western side of Stonebridge Drive as this site is also a low flood island in a PMF event.



Extract from Black Creek (Cessnock City) Floodplain Risk Management Study and Plan – Showing
Approximate Rezoning Location Over 1% AEP Event Flood Hazard

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5. ***BCD notes that high hazard flooding can develop very quickly in the proposed development area and it is unlikely that adequate mitigation measures can be employed at the site to reduce this risk to an acceptable level. These issues should be observed in any further consideration of the proposal.***

The development is only low hazard in the flood planning area for the 1% AEP event. It is agreed that evacuation would pose an unacceptable risk to residents in the larger unlikely to occur events. As per Point 4, residents would be encouraged to seek on site refuge rather than evacuating in extreme flood events.

6. ***If the planning proposal progresses further, the proponent should assess the risks to the changes in population at risk from the failure of Mount View Detention Basin.***

It is acknowledged that a larger population will be introduced to the floodplain with the proposed rezoning. However, the Flood Consequence Category is based on incremental consequences over natural flooding conditions. The point made in the report is that this population will likely not be introduced to significant additional risks over and above the flooding risk without dam break.

7. ***If the proposal progresses further, the proponent should prepare a drainage masterplan to show how stormwater flows would be managed and treated so that impacts to adjacent and downstream areas are minimised.***

Given the scale of local site flows compared to the broader catchment flood flows that have been assessed as part of the subject Flood Impact Assessment, site stormwater management is considered a separate issue that could be addressed should Council consider the rezoning worth pursuing with consideration to flooding constraints. It is believed that acceptable measures could be achieved in line with any Council stormwater requirements.

The Flood Impact Assessment that was prepared, previously identified the flood behaviour outlined in BCD's response. The flood features outlined in the comments should not have taken Council unaware as they are advised in the FIA and can also be interrupted from the associated flood maps. At the time of submitting the FIA, it was reviewed by Council and the rezoning was supported to move forward to Gateway.

If Council no longer wish to support the planning proposal, it is requested that fees associated with the planning proposal be refunded.

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Should you wish to discuss this or require any further information, please do not hesitate to contact the undersigned.

Yours faithfully

MONTEATH & POWYS PTY LIMITED

A handwritten signature in blue ink, appearing to read 'James Cross'.

James Cross
Project Manager
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DATE	EVENT
10 January 2019	<p>DPIE request further clarification from Council in respect to the following matters:</p> <ul style="list-style-type: none"> • Why is multi-unit housing included for the proposed R2 zone instead of adopting R3 zoning? • Reasons for removing the additional permitted use of hotel or motel accommodation (i.e. economic viability, land use conflict, implications for Cessnock CBD)? • A clearer explanation as to why flood impacts are considered a minor inconsistency of Section 9.1 Direction 4.3 (e.g. reference to Section 8 of the PP on assessment of flooding) • Risk management is evident in Council's current DCP, however, what does this mean for this site in respect to development potential and required flood mitigation works?
25 January 2019	Council addresses DPIE's concerns with responses to the above questions.
22 February 2019	<p>DPIE raise additional concerns regarding the site suitability for residential development based on identified flood constraints, as follows:</p> <ul style="list-style-type: none"> • Is there an adopted flood study/Risk Management Plan for this catchment and does this study/plan justify fill in the flood fringe? • As the flood maps in the PP are very pixelated and lack accuracy, will the development be required to do a Minor or Major Flood Assessment Report?
18 April 2019	Council issues a request for additional information to the proponent to address Ministerial Direction 4.3, Flood Prone Land.
24 May 2019	The proponent provides a response to Council's request for additional information.
29 August 2019	<p>Council requests flood modelling and supporting technical report to consider the following:</p> <ul style="list-style-type: none"> • The impacts to surrounding development and land uses and demonstrate that there is no increase in those flood impacts as a result of any likely development of the land. • Changes in the flood characteristics, but also the flood risk associated with any new development and the resulting population that may be introduced into the floodplain. • The flood investigation should assess a range of design floods from the 20% AEP to the PMF, inclusive of the 10%, 5%, 2%, 1% and 0.5%, defining hydraulic flood categories, flood hazard (in accordance with ARR2016) along with flood levels, depth, and velocities. Comparison should also be made to the flood planning level, being the 1% AEP Flood level plus 0.5m.
11 December 2019	Proponent advises that an appropriate flood consultant is being sourced to prepare the flood modelling requested by Council in August 2019.
19 February 2020	Proponent advises that a flood study will take approximately 3 months to prepare and submit to Council.
17 March 2020	As adequate responses had not yet been received in respect to previous requests for additional information, DPIE seek confirmation from Council still intend to proceed with the Planning Proposal.
25 May 2020	A response to key issues raised by Council's Flood Engineer is requested.
3 June 2020	The Flood Impact Assessment report prepared by Cardno is updated to address issues raised by Council.
1 July 2020	Council forwards a copy of the updated Flood Impact Assessment to DPIE.
21 July 2020	Gateway determination is issued.

7 August 2020 to 24 September 2020	Agency consultation
28 September 2020	Response from BCD is received in relation to flooding and flood risk.
22 October 2020	Proponent provides response to BCD comments.