

By email: [REDACTED]

Ref: GJLM00293625F06050577.DOCX

25 November 2019

Ms Anita Allen
Manager, Planning Reform
Department of Planning, Transport & Infrastructure
GPO Box 1815
ADELAIDE SA 5001

Dear Anita

Draft flooding policy in Phase 3 of the Planning and Design Code – City of Norwood, Payneham and St Peters

We act for the City of Norwood, Payneham and St Peters (**Council**).

1. Executive summary

We have been instructed to prepare this submission to the Department of Planning, Transport and Infrastructure (**DPTI**) due to the Council's serious concerns regarding the flooding policy and mapping proposed in Phase 3 of the draft Planning and Design Code (**P&D Code**).

Due to the significance of this issue the Council will also be forwarding this separately as a formal stand alone Code submission as part of Phase 3 consultation so that it may be resolved as soon as possible. In due course the Council will make a further submission to DPTI on all other aspects of the P&D Code.

The Council is concerned that the proposed flooding policy and mapping does not maintain the status quo of the Council's present approach to development assessment; contains redundant misleading information; and does not sufficiently address known flooding risks for future development.

The Council strongly urges DPTI to amend the proposed flooding policy and mapping before commencement of the P&D Code, so as to reduce the community's exposure to risk; and reduce the Council and DPTI's exposure to potential liability resulting from flooding associated with developments to be approved under the P&D Code.

2. Redundant floodplain mapping

The Council's current Development Plan contains floodplain mapping at Map NPSP/1 (Overlay 5), which was prepared by Tonkins in 1999 (**Redundant Mapping**). This mapping shows the 1 in 20 year ARI and 1 in 50 year ARI indicative floodplains around First and Second Creeks, but it does not cover the 1 in 100 year ARI indicative floodplain. Further, the

Redundant Mapping also only covers a portion of the Council's area, leaving the balance unaccounted for. The Redundant Mapping is therefore not a comprehensive resource. Further, none of the Council's Development Plan policies refer specifically to the Redundant Mapping.

Through the Residential Development (City Wide Policy) DPA, which came into effect in August 2011, the Council addressed the previous inconsistency in the development assessment standards which are applied throughout the Council area for developments within a floodplain. This inconsistency had occurred as a result of the consolidation of planning policies from the three former councils, prior to amalgamation, all of which were drafted prior to 1997.

Between 1997 and 2011, the Council assessed all Development Applications identified to be at risk of flooding based on the differing policy approach in the three formerly existing Development Plans. This policy included four Principles of Development Control, three of which related to the former City of Kensington & Norwood and one of which applied to the balance of the Council area. At that time, developments within a property affected by a 1 in 20 year ARI were only restricted in the former Kensington & Norwood Local Government Area. This meant that the extent to which an applicant could develop a flood affected property largely depended on which of the former three local government areas a proposed development was located within.

The introduction of the Residential Development (City Wide Policy) DPA in 2011, allowed the Council to consolidate its policies relating to flood affected properties. The DPA objectives sought to ensure that:

- a) no new buildings, structures or extensions be constructed and no new allotments created on land affected by the principal flow path of the 1 in 20 year ARI;
- b) development be suitably protected from the 1 in 100 year ARI; and
- c) development did not impede the flow of floodwaters or exacerbate downstream flooding through the design and location of new buildings and structures.

The Councils risk-based flood policy for new development references both the 1 in 20 ARI and 1 in 100 year ARI flood events. Importantly, this approach, which was endorsed by the DPTI and the Minister for Planning at the time, also ensured the Council could rely upon the latest available flood plain mapping information (rather than including redundant or outdated floodplain maps within the Development Plan) as part of assessing Development Applications for flood affected properties.

The Redundant Mapping was superseded by more recent floodplain mapping undertaken by Tonkins in 2018 (**Current Mapping**). This has meant that the Council now takes the Current Mapping, not the Redundant Mapping, into consideration in development assessment by virtue of the content of the general flooding policy contained within the Development Plan. We understand that the Council is not alone in this practice of reliance upon more recent and comprehensive floodplain mapping in development assessment notwithstanding that precise mapping is not contained in the Development Plan.

However, the draft P&D Code includes the Redundant Mapping as the source of the new mapping for the Hazards (Flooding) Overlay. This reproduction results in a backwards step for planning policy regarding flooding. This Redundant Mapping has not been used as the basis for development assessment for a number of years and the Council is very concerned that it will produce substandard assessment outcomes, resulting in increased risk to public

safety and property damage on flood prone land. This move does not represent the maintenance of the “status quo” in the existing development assessment approach. Further, adoption of the Redundant Mapping has resulted in fragmented and nonsensical mapping results and policy approaches between council areas, which fail to provide a comprehensive overview of actual flood risks. This approach also removes current assessment tools for the management of this risk. An example of this is where the mapping in the Hazards (Flooding) Overlay incorrectly gives the impression that flooding ceases abruptly at council boundaries or arbitrarily switches to an alternative P&D Code Overlay, e.g. Water Resources Overlay at a council boundary (e.g. Third Creek, Firle). This result is obviously inconsistent with the known flooding risk in such areas and the protections currently able to be afforded in development assessment by these councils to developments so affected.

The “Guide to the Draft Planning and Design Code: Rural and Urban Council Areas (Phases Two and Three)” dated October 2019 (**Guide**) outlines that the policy response embodied in the P&D Code has been to refine and transition the mapping of hazards in current Development Plans into new spatial overlays in the P&D Code. The mere transition of the Redundant Mapping into the P&D Code is strongly opposed by the Council given its irrelevance to current day development assessment and because it results in an inaccurate reflection of the known flooding hazards existing within council areas. Further, it would seem that the Guide’s stated opportunity to “refine” the Redundant Mapping in this version of the P&D Code has been missed and should have been taken so as to include the Current Mapping as a default and the most accurate reflection of flooding risks known at the time.

The Guide suggests that future versions of the P&D Code will update the mapping of all flood prone areas using a consistent methodology. Whilst this is a supported outcome, the present flooding protections in the Current Mapping should be incorporated into the P&D Code as the default position until such time as it can be replaced by an improved and consistent approach that is investigated and developed by DPTI.

Further, the Guide acknowledges:

“For councils without a Hazards (Flooding) Overlay, a deemed-to-satisfy provision is included for all residential development in the Design in the Urban Areas General Development Policies. This will require all dwellings to be built 300 mm above the curb [sic] line. This is an interim policy response until further flood mapping work can be undertaken for future iterations of the Code.”

[Our emphasis added]

As the Council has up to date mapping available this approach is a retrograde step (importantly it does not maintain the status quo as referred to in the Guide) and it disables the current development assessment practice for sound risk management. The Council is very concerned of the wider implications of such an approach and the resulting deficiency in this first draft of the P&D Code.

This is not the first time the Council has raised its concerns regarding the inclusion of the Current Mapping with DPTI. We are instructed that the Council raised this issue generally with DPTI early in discussions with DPTI staff concerning facets of the transition to the P&D Code and also specifically in its email to DPTI dated 19 February 2019. On this basis DPTI has had knowledge of the Council’s concerns for a substantial period of time, which time the Council argues would have been sufficient to suitably remedy these issues in an appropriate manner that does not expose stakeholders to greater risks.

3. Inadequate flooding policy

The Guide outlines that the policy response in the P&D Code has been to refine and transition flooding policy from Development Plans into the P&D Code. A comparison between the Council's Development Plan and the P&D Code reveals that existing important flooding policy has not been so transitioned into the P&D Code, including in relation to the Hazards General Development Plan policies specifically.

The Council's City Wide Development Plan policies include the following Principles of Development Control relevant to flooding (**Existing Flooding PDCs**):

Land Division

21 Land should not be divided:

- (a)- (f) ...;
- (g) if the boundaries of the proposed division are likely to cause or exacerbate problems arising from surface drainage;
- (h) if waste produced by the proposed use of the land, or any use envisaged in the Zone and/or Policy Area, will cause pollution of a public water supply or any surface or underground water resource;
- (i) if any portion of any allotment is within the principal flow path of the 1 in 20 year Average Recurrence Interval floodplain;
- (j) unless:
 - (i) the existing ground level of each of the allotments resulting from the division has sufficient area outside the 1 in 100 year Average Recurrence Interval floodplain; or
 - (ii) it can be demonstrated through specific engineering investigations that the land division and future development of each of the allotments affected by the 1 in 100 year Average Recurrence Interval floodplain, would not cause detrimental effects to any adjoining or downstream properties;..

Hazards

167 Development should be excluded from areas that are vulnerable to, and cannot be adequately and effectively protected from, the risk of hazards.

168 Development located on land which is subject to hazards should not occur unless it is sited, designed and undertaken in association with appropriate precautions against the relevant hazards.

Flooding

169 Development, including earthworks associated with development, should not:

- (a) be adversely affected by flooding or inundation;
- (b) impede the flow of floodwaters through the land or the surrounding land;
- (c) increase the risk of flooding of other land;
- (d) adversely affect the level of flood waters on adjoining properties;
- (e) obstruct a watercourse;
- (f) aggravate the potential for erosion or siltation or lead to the destruction of vegetation during a flood;
- (g) occur on land where the risk of flooding is likely to be harmful to safety or damage property; or
- (h) increase the potential hazard risk to public safety of persons during a flood event.

170 No new buildings or structures, or extensions to existing buildings or structures, or portions thereof, should be constructed within any site which is at or below the principal flow path level of the 1 in 20 year Average Recurrence Interval floodplain.

171 The finished ground floor level of all habitable spaces should not be less than 300 millimetres above the 1 in 100 year Average Recurrence Interval floodplain.

[Our emphasis added]

A review of the Hazards (Flooding) Overlay reveals policies (**New Flooding Policies**) that refer to a range of development outcomes for land division and built form within the Overlay. However, these New Flooding Policies only refer to a 1% AEP (Annual Exceedance Probability), the equivalent to a 1 in 100 year ARI. There is no reference in these New Flooding Policies to the 1 in 20 year ARI (5% AEP). Therefore, the status quo in the Council's Development Plan, evidenced expressly by the Existing Flooding PDCs above, has not been maintained in the Hazards (Flooding) Overlay and which only applies defined freeboard heights at the land division stage, where structures are not contemplated or addressed.

The following provision of the New Flooding Policies illustrates an example of a change in approach to the accommodation of a 1 in 100 year ARI event (1% AEP):

Hazards (Flooding) Overlay

Land Division

PO 1.3

Land is not divided unless a layout is achieved whereby roads, parking areas and development sites for each allotment are at least 0.3m above the 1% AEP flood event level, unless the land is, or can be provided with flood protection measures that are appropriate and acceptable for the intended future land use.

DTS/DPF 1.3

None are applicable

[Our emphasis added]

Similarly the following new provision illustrates that the P&D Code does not seek to exclude all development from flood prone land as was the status quo in PDC 167 above, rather it only affords such protections to vulnerable people, community services facilities and emergency services:

Hazards (Flooding) Overlay

Land Use

PO 2.1

Buildings housing vulnerable people, community services facilities and emergency services are sited away from areas of unacceptable flood risk.

DTS/DPF 2.1

Pre-schools, educational establishments, retirement and supported accommodation, emergency services facilities, hospitals and prisons located outside of the 1% AEP flood area.

[Our emphasis added]

Further, the following new provision for building work is less prescriptive than the Existing Flooding PDCs with respect to finished floor level (**FFL**) requirements. This represents another example of a change in approach and a lessening of the design requirements to addressing a 1 in 100 year ARI event (1% AEP):

Hazards (Flooding) Overlay

Flood Resilience

PO 3.3

Buildings sited, designed and constructed to prevent the entry of floodwaters in a 1% AEP flood event where the entry of flood waters is likely to result in undue damage to or compromise ongoing activities within buildings.

DTS/DPF 3.3

None are applicable

[Our emphasis added]

Outside of the Hazards (Flooding) Overlay, the only policy relating to flood mitigation is found under General Development Policies - Design in Urban Areas - All Residential Development:

Flooding

PO 17.1

Residential accommodation sited, designed and constructed to prevent the entry of floodwaters where the entry of flood waters is likely to result in undue damage to or compromise ongoing activities within buildings.

DTS / DPF 17.1

Residential accommodation has a ground finished floor level 300mm above the top of the kerb level of the primary street.

It is noted that DTS / DPF 17.1 only requires FFLs above top of kerb level, which may assist in stormwater overspill from the primary street, but has no relationship to AEP flood events. Council is also concerned that this provision only relates to residential accommodation, and that such protection does not extend to commercial or other developments. There are stormwater requirements for multi-dwelling sites which require stormwater management plans (**SMPs**) which cater for 1% AEP events, but this is in relation to the stormwater on the development site, not the mitigation of flood impacts on dwellings through design measures relating to FFLs.

The Council is concerned that the New Flooding Policies do not manage the risk of flooding outside of the Hazards (Flood) Overlay. This concerns the Council as there is a significant risk that various developments will be classified as Deemed to Satisfy, meaning that relevant authorities will have insufficient recourse to guard against flood risk. Even for Performance Assessed Development, a relevant authority will be limited to applying the policies within the relevant Assessment Table, which may not include the Hazards (Flood) Overlay policies. Notwithstanding this, the policies within the Hazards (Flood) Overlay are still inadequate as they do not address the principal flow path or the 1 in 20 year ARI issues.

The Council is rightly concerned that the New Flooding Policies do not maintain the status quo of the Existing Flooding PDCs; are insufficient and not comprehensive. Further, we have been instructed that in its discussions with DPTI staff, it was revealed to the Council that these New Flooding Policies were not prepared in consultation with a hydrological engineer. This gives Council even greater cause for concern as there appears to be no reasonable basis for the proposed departure from the existing flood protection policies.

The P&D Code also contains a Water Resources Overlay which relates to the protection of the quality of surface waters as affected by development. This Overlay does not deal with surface waters affecting development, e.g. flooding. In the Council area, this Water Resources Overlay applies along the River Torrens and Third Creek, but not along First and Second Creeks where the Hazards (Flooding) Overlay would apply. The Council is aware that in the City of Burnside, along with other similarly affected councils, the Water Resources Overlay will replace the Watercourse Zone in that Council's Development Plan, which Zone currently manages both flood risk mitigation and water quality. Therefore, the City of Burnside will have seemingly lost its flood risk mitigation policies for these locations and zones in the P&D Code. Council is rightly concerned about the impact of such an approach. Council does not presently understand the rationale behind the approach in these two overlays.

Goals of State Planning Policy 15 have not been achieved

The State Planning Policies set the policy agenda for the P&D Code. State Planning Policy 15 (**SPP 15**) deals with Natural Hazards and seeks that the P&D Code should:

"...include policy that mitigates the adverse impacts from natural hazards, particularly flood and fire. Overlays will be used to identify risks relating to bushfire, flooding and other natural hazards."

Further, SPP 15.1 specifically seeks that the P&D Code should:

"Identify and minimise the risk to people, property and the environment from exposure to natural hazards including ... terrestrial and coastal flooding".

With the inadequacies referred to above the Council is concerned that the P&D Code does not presently comply with SPP 15. In its current form it does not identify or minimise risk to people or property from exposure to flooding on the basis of information and controls presently known and readily available.

4. Unacceptable level of risk in proposed flooding policy

Failing to include the Current Mapping in the P&D Code, or enabling it to be a relevant consideration in future development assessment under the P&D Code, puts the community, the Council, DPTI, the Commission and the Minister for Planning at increased risk. This risk also exists should the New Flooding Policies fail to maintain the status quo of the Existing Flooding PDCs and remain inadequate.

When information is available regarding potential flooding risks, it is entirely reasonable that an owner or occupier of land who suffers property damage or loss attributable to flooding may seek to recover compensation from such entities when that risk was known, was previously mitigated against, and should have been avoided.

Further, it is entirely reasonable that members of the community seeking to develop under the P&D Code should be able to expect that the P&D Code contains accurate information and that it places future development at no additional risk than is the case under the Existing Flooding PDCs. It is not appropriate for the community, or councils, that the first version of the P&D Code contains misleading mapping and variations to Existing Flooding PDCs that have not been supported by hydrological engineers and places such entities at greater risk. This appears to be a policy direction that is not evidence based. It is similarly undesirable for this course to be preferred simply because there is insufficient time available for DPTI to develop new flooding policy and mapping before the deadline for commencement of the P&D Code.

5. Requested amendments to proposed flooding policy

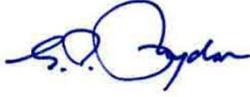
The Council urges DPTI to delete from the Hazards (Flooding) Overlay the Redundant Mapping and insert into the Hazards (Flooding) Overlay the Current Mapping. The Council argues that this is an appropriate course of action because the Current Mapping has been publicly available at the Council since 2018 and this represents a replication of the status quo in the approach to development assessment for the Council. Should DPTI not be amenable to this approach, then the Council seeks that no floodplain mapping be included in the P&D Code for its area, with modifications being made so that the Council and relevant authorities are able to instead rely upon general flooding policy in the P&D Code for both the 1 in 20 year ARI and 1 in 100 year ARI to enable them to consider the Current Mapping as an external document in development assessment. DPTI can then insert appropriate and up to date floodplain mapping across all council areas in a later version of the P&D Code, when it has undertaken the relevant investigations it so requires.

The Council also urges DPTI to review the New Flooding Policies so as to maintain the existing level of flood protection in the Existing Flooding PDCs, until such time as DPTI has undertaken relevant investigation supported by expert hydrological input on any new policy directions.

We look forward to your consideration of these issues and requests. The Council seeks that DPTI provide it with the opportunity to review and comment on any amendments to the New Flooding Policies and mapping before the P&D Code becomes operational.

Please contact Eleanor Walters at the Council on [REDACTED] if you wish to discuss this submission in more detail.

Yours faithfully
Norman Waterhouse



Gavin J Leydon
Principal

T [REDACTED] M [REDACTED]
[REDACTED]

CC Ms Eleanor Walters (by email: [REDACTED])