

10 March 2016

Ann-Maree Carruthers
Director, Urban Renewal
Department of Planning and Environment
GPO Box 39
Sydney NSW 2001

RE: Exhibition of the Kellyville, Bella Vista and Showground Station Priority Precincts

Dear Ann-Maree,

Thank you for notifying Sydney Water of the exhibition of the Kellyville, Bella Vista and Showground Station Priority Precincts. We have reviewed the exhibited material and can provide the following comments for your consideration.

Water and Wastewater Servicing

We are supportive of the Department of Planning and Environment's Priority Precinct Plans for Kellyville, Bella Vista and Showground Stations. Sydney Water is currently undertaking strategic investigation into an integrated servicing strategy for the Sydney Metro Northwest corridor. This will identify high level servicing concepts for water and wastewater servicing for the growth precincts, as well as investigate potential opportunities for expansion of the recycled water system. This strategy is due for completion in mid-2016 and the results will be shared with the Department of Planning and Environment to inform future staging of development within the corridor.

Trunk drainage and stormwater management

Sydney Water intends to invest significantly in the Elizabeth Macarthur Creek corridor for the provision of trunk drainage services to facilitate local development within the Bella Vista and Kellyville Precincts.

This investment emphasises the restoration and enhancement of the natural values of the creek rather than simply installing a minimalist drainage facility. Sydney Water believes this approach will deliver the best value to the environment and the community into the future, consistent with the vision and aspirations of government as outlined in the supporting precinct planning documents.

Given the supporting investigations and plans provided by the Department it appears that the proposed rezoning overreaches the capability of the land to deliver a quality urban design outcome.

Sydney Water is keen to engage closely with the Department and Council in the refinement of development, road and open space layouts, local drainage designs and the preparation of WSUD development controls to be applied in the precincts. In order to maximise the value of

Sydney Water's trunk drainage investment for the community this engagement would aim to protect the creek corridor and maximise the community presentation, engagement and involvement with a quality riparian creek corridor.

Detailed comments to specific components of the exhibited material are provided in Attachment 1.

If you require any further information, please contact Beau Reid of Urban Growth Strategy on 02 8849 4357 or e-mail beau.reid@sydneywater.com.au.

Yours sincerely,



Greg Joblin
Manager, Growth Strategy

Attachment 1

Detailed comments for trunk drainage and stormwater management

1. Trunk drainage land

Elizabeth Macarthur Creek passes through the Bella Vista and Kellyville Priority Precincts. The creek corridor is currently zoned for trunk drainage purposes with Sydney Water the designated trunk drainage authority for acquisition purposes.

Sydney Water is undertaking a comprehensive review of trunk drainage requirements and planning along Elizabeth Macarthur Creek, between Norwest Business Park and just north of Samantha Riley Drive. The review includes land acquisition assessment and concept design of works within the creek corridor.

The review will have significant implications on the land use planning of the precincts, particularly immediately adjacent to the trunk drainage corridor. Sydney Water seeks to work co-operatively with the Department, Council and landowners to refine the local planning and controls to promote and deliver quality development in the Bella Vista and Kellyville Precincts.

2. Rezoning for Drainage Purposes

Sydney Water has critically reviewed the land area required in order to provide trunk drainage services. The existing statutory zoning boundary is considered unsuitable. The revised area of land preferred for rezoning for trunk drainage purposes is as per the 'red line' previously advised to the Department. Based on the advice of Department staff the rezoning proposal is represented by:

- The Bella Vista Proposal for Rezoning on page 6 of Appendix A - 'Explanation of Intended Effect'
- The Kellyville Proposal for Rezoning on page 7 of Appendix A – 'Explanation of Intended Effect'

These plans generally agree with the trunk drainage corridor requirements identified recently by Sydney Water.

Unfortunately there appear to be inconsistencies between various concept plans within the supporting documents and the intended rezoning outside the proposed trunk drainage corridor. In particular is the discussion and vision of a broad open space corridor along Elizabeth Macarthur Creek and apparently contradictory blanket rezoning to high intensity land use zone right up to the proposed trunk drainage corridor.

These inconsistencies need to be resolved with a clear direction that ensures the presentation of developments and the provision of open space along the creek corridor maximise the community access and enjoyment of the Elizabeth Macarthur Creek corridor as intended.

Many of the investigations and concept plans included in the description of the Precinct Plan indicate extensive pockets of open space allocated between the trunk drainage corridor and the

proposed roads and development lots. Unfortunately these open space plans do not align with the proposed rezoning and the intended outcome for a high quality urban design interface to the creek is likely to be at risk.

The blanket rezoning to high intensity land use right up to the proposed trunk drainage corridor along Elizabeth Macarthur Creek would result in residual lots between the proposed road layout and the creek that are constrained in terms of shape and size. Investigations such as the shadow diagrams for anticipated building envelopes have not identified how these difficult lots could be developed to a high standard of quality urban design.

Many of these issues could be resolved with the provision of appropriate open space pockets along the creek corridor or with realignment of the proposed road layouts adjacent or closer to the creek corridor to avoid the production of difficult development lots.

The determination of zone extents and the configuration of road patterns should be critically reviewed to ensure that the urban design intent for strong integration of the creek corridor and the urban form is achieved.

The Infrastructure Schedules for each precinct identify 'revitalising Elizabeth Macarthur Creek including new recreational areas along the creek' as a key infrastructure item and identifies this as a joint responsibility of Sydney Water and Council.

The works within the trunk drainage corridor would be attributable to Sydney Water. The attendant open space provision would be attributable to Council and as identified would be funded through a Council Section 94 Contribution.

These works represent a major financial investment by Sydney Water and Sydney Water seeks clarity and certainty that the planning provisions and development controls will ensure this investment is fully realised to the benefit of the community. The current rezoning proposal puts at risk an appropriate realisation of community benefits on the Sydney Water investment.

There are some locations where the red line represents a smoothing of an irregular existing trunk drainage boundary. The smoothing would improve the local development outcome but would need to result from a voluntary boundary adjustment between Sydney Water and the adjacent land owner (which realistically may or may not happen).

3. Urban Design

The supporting planning documents emphasise the important relationship between the Elizabeth Macarthur Creek corridor and the precinct urban design and form:

- Opening up creek corridors for pedestrian and cycle paths with connections across to the stations.
- Enhancing and protecting the ecological values of the Elizabeth Macarthur Creek corridor.
- Promoting important links between Elizabeth Macarthur Creek and the Town Centres.
- Providing attendant green spaces along the Elizabeth Macarthur Creek corridor with pedestrian and cycle paths.

- Protection of the natural environment and revitalising the Elizabeth Macarthur Creek corridor.
- Managing impacts on the local environment including protection of remnant ecological communities in the creek corridors.

Sydney Water supports this vision and aims to ensure that the current review of the trunk drainage requirements and concept design will faithfully support and promote these values. Conversely Sydney Water would expect that the further refinement of the planning instruments and controls will positively enhance the presentation and relationship of development with the creek corridor.

4. Flood Planning Levels

The supporting documents note the most recent flood modelling undertaken by WMA Water on behalf of Sydney Water in 2014 and recommends the adoption of the design flood levels per the WMA modelling for flood planning purposes. It is not appropriate to adopt the existing design flood levels for setting Flood Planning Levels.

The existing flood levels will be modified by works to be undertaken by Sydney Water, Council and landowners and are expected to rise moderately. The change in flood levels is associated with the modification and ongoing management of the Elizabeth Macarthur Creek floodplain and the trunk drainage corridor as follows:

- Increased vegetation roughness of the floodplain because of denser riparian vegetation and natural woody debris.
- Provision of multiple bridges, cycleway / pedestrian crossings and signage at various locations along the creek will increase flood levels.
- Permitting landfilling of the flood fringe and edge areas to reduce the area of land required for trunk drainage purposes and to increase the area of land available for development.
- Removal of artificial structures such as on line farm dams, piped culverts and concrete causeway crossings.

As part of the current review and design process Sydney Water will provide revised design flood levels for use as Flood Planning Levels.

The modified trunk drainage corridor does not extend to cover the full width of the existing floodplain. That is, Sydney Water does not intend to acquire the full width of the current 100 year ARI design floodplain. The design of the trunk drainage corridor will be devised to permit where appropriate (for example, not anticipated in riparian zone extents) the filling of the remnant flood affected land outside the trunk drainage corridor by offsetting, in a coordinated strategy, the potential flood impacts of the landfilling and development.

Sydney Water will provide design guidelines for landfilling outside the trunk drainage corridor and recommends that this guidance be incorporated as part of the Local Development Control Plan. It is intended that this will make it unnecessary for individual property developers to undertake separate flood impacts assessments provided proposed developments are consistent with the Sydney Water trunk drainage concept design and landfill strategy.

5. Water Sensitive Urban Design

The documents refer to existing Hills Council Water Sensitive Urban Design (WSUD) controls referenced in Appendix B of Council's Development Control Plan.

Hyder Consulting recommended the adoption of controls aligned with the North West Growth Centres targets. These targets are consistent with generally accepted practice.

Gross Pollutants	90%
Total Suspended Solids	85%
Total Phosphorous	65%
Total Nitrogen	45%

Sydney Water is unconvinced that the current Council DCP specification (relating to light industrial development) would be able to deliver the target reductions.

Sydney Water notes that the Department has recommended enhanced controls to:

- Adopt best practice techniques for stormwater quality management.
- Minimise flooding and reduce the effects of stormwater pollution on Elizabeth Macarthur Creek and Caddies Creek.
- Ensure an integrated approach to water management through the use of water sensitive design principles.

The material also specifically references the incorporation of streetscape WSUD facilities and the retention of stormwater on site. Sydney Water strongly supports the implementation of these WSUD controls into the planning for the precincts for the protection of the creek and riparian corridors.

Sydney Water is supportive of the enhanced controls recommended by the Department. These controls represent the foundation of effective source control which is a preferred strategy over the construction of large end-of-pipe raingardens or wetlands (also noting that the rezoning proposal does not identify an allocation of land space for 'end of pipe' facilities).

Large end-of-pipe facilities have frequently proven difficult to integrate into open space (let alone private properties) without dominating and compromising the development of quality open space areas. The supporting documents note that the quality and useability of open space provided is important when considering appropriate open space provisions.

Sydney Water would be concerned if proposed controls were limited only to those specified in the current Hills Council DCP. These controls alone are unlikely to adequately manage stormwater impacts for Sydney Water to accept stormwater connections to the trunk drainage corridor and Elizabeth Macarthur Creek. Sydney Water is keen to work with the Department and Council regarding the identification and implementation of preferred WSUD development controls.

6. Land Acquisition

Sydney Water would be prepared to act as the acquisition authority for trunk drainage land in the Kellyville and Bella Vista Precincts, but limited to the reach of Elizabeth Macarthur Creek to the south of Samantha Riley Drive only, as well as north of Norwest Business Park. This is consistent with Sydney Water's previous commitments to government to limit land acquisition to remaining areas at Rouse Hill that were subject to future civil works by Sydney Water. Sydney Water would not operate as the acquisition authority for lands outside this corridor. Note in particular this excludes trunk drainage acquisition near the Caddies Creek Playing Fields.

If you require any further information in relation to trunk drainage and stormwater management, please contact Raymond Parsell of Land and Waterways on 02 8849 4132 or email raymond.parsell@sydneywater.com.au

