



6 July 2015

Territory Plan Comments
GPO Box 158
Canberra ACT 2001

terrplan@act.gov.au

Dear National Capital Authority and the ACT Environment and Planning Directorate,

Comments regarding Draft Variation 351 to the Territory Plan (DV351) and Draft Amendment 85 (DA85) to the National Capital Plan

I am writing to submit comments on the proposed rezoning of the area immediately west of the suburbs of Holt and Macgregor for future urban development under Draft Variation 351 to the Territory Plan (DV351) and Draft Amendment to the National Capital Plan (DA85) out for public review until COB Monday 6 July 2015.

This submission is in addition to the agency consultation response provided to Territory Plan Referrals by Icon Water in April 2015 (see copy attached). Our comments provided in previous submissions still apply. The main purpose of this submission is to update and expand upon the previous comments provided under the heading of 'LMWQCC odour emissions'. We have broadened the scope of those comments to also comment on other aspects of the clearance zone, in addition to odour.

LMWQCC clearance zone

Lower Molonglo Water Quality Control Centre (**LMWQCC**) was constructed in the 1970's in a Non-Urban Zone, away from potentially sensitive residential areas. As Canberra's major sewerage asset, LMWQCC and the associated major sewer tunnel and two major vents located to the west of the proposed development are potential constraints on rezoning the land purpose from Non-Urban Zone to Future Urban Area. The existing infrastructure is a major investment for the community which is critical to ongoing provision of sewerage services in the ACT.

LMWQCC currently has a 1km clearance zone, incorporated into the Territory Plan under the Belconnen District Precinct Code, to protect the plant from the encroachment of inappropriate land uses and to protect ACT residents from the potential risks and impacts associated with the plant.

Apart from Rule 40 in the draft West Belconnen Concept Plan, DV351 makes no reference to LMWQCC. The explanatory statement describes other existing uses within the West Belconnen District such as the TransGrid Canberra Substation, Green Waste and Parkwood Egg Farm among others. Relevant clearance zones that apply around these existing uses are also described and their importance explained with respect to the incompatibility of these uses with residential development. Reference is also made to these existing uses potentially ceasing at some time in the future. In comparison, LMWQCC may require upgrading and expansion in the future in response to an increasing population in Canberra and the surrounding region. The proximity of the proposed Future Urban Areas to LMWQCC must be



acknowledged and DV351 must include appropriate principles, policies, rules and criteria that protect the Canberra community's investment in LMWQCC from the potential impacts of residential development.

Odour issues

Icon Water has been actively liaising with the Land Development Agency and the Riverview Group in relation to the potential odour impact to the proposed development from LMWQCC and existing vents along the trunk sewer associated with providing sewerage services to the ACT and treating Canberra's sewage.

The degree of constraint from the existing sewerage infrastructure must be fully quantified and understood before residential development is permitted in close proximity to that infrastructure. To this effect, Icon Water has engaged an industry expert to review, advise on, and quantify the odour issues in relation to the proposed development. This has not been a simple process to evaluate due to the complex nature of the area that is under consideration. In an iterative process of analysis, the impacts are being quantified with increasing level of confidence. These studies however are lengthy and require seasonal data to be collected and analysed.

Preliminary investigations by the industry expert have shown that the 1 km clearance zone around LMWQCC was based on preliminary toxicity hazard and odour dispersion data and regulations available at that time. Since then, substantial improvements have been made in odour dispersion modelling. The current clearance zone is inadequate given the proposed future urban development of the district and requires revision.

LMWQCC odour dispersion modelling using both Ausplume and Calpuff models was conducted by consultants in 2013 and 2014. The modelling predicted a large odour footprint affecting several parts of the proposed development area for both baseline odour and stringent odour control scenarios, which may be compatible with the existing Non-Urban land zoning but incompatible with the proposed Future Urban Area zoning. Review of the modelling by the industry expert found that existing modelling inadequately predicted the current or likely odour dispersion due to limited accounting for odour decay factors, locally specific inversion layers and meteorology, and local steep topography (on a much finer scale than the model can incorporate) affecting wind speed and direction in the narrow valley. These findings were supported during an expert panel in odour management and odour profiling convened by the industry expert in June 2015 to validate the existing modelling limitations and determine approaches to issue resolution. Further investigations on these issues, followed by suitable remodelling of odour dispersion, is required to determine current and likely odour impacts from LMWQCC under baseline and stringent odour control scenarios. It is expected that future investigations and modelling will be completed by December 2015.

The remodelling of odour dispersion will enable an informed decision to be made regarding appropriate impact mitigation strategies that reflect current scientific data and analysis. For example, the remodelling will permit proper consideration of the benefit to the community of retaining an appropriately sized Non-Urban Zone as a buffer around the existing LMWQCC and an assessment of available stringent odour control technologies that may be required at LMWQCC due to urban development in the West Belconnen District. It is anticipated that any capital investment costs related to appropriate impact mitigation strategies may be borne by either the developer as part of the development approval conditions or by the community as part of sewage utility bills (subject to future price determinations by the independent economic regulator, the ICRC). Icon Water notes that the timeframe for implementing any major infrastructure works at the LMWQCC that are assessed as necessary to meet more stringent residential-level odour targets is expected to be several years.

Until sufficient odour dispersion data is available to properly inform this decision, Icon Water recommends that there be no change of current land use within 2.6 km of LMWQCC. In order to implement this, Icon Water proposes that the current clearance zone around LMWQCC, as depicted by RC1 on the Belconnen District Precinct Map, be extended to a 2.6 km radius. Icon Water notes that this approach is consistent with the proposed Structure Plan for West Belconnen and that DV351 proposes a similar measure in relation to other existing uses in the West Belconnen District by an extension of the clearance zone depicted by RC2.



Icon Water further proposes that the Belconnen District Precinct Map and Code (**BDPMC**) and part 19 of the proposed West Belconnen Concept Plan be amended to achieve the following objectives:

- 1 under the BDPMC, a mandatory rule applies requiring all development (both inside and outside the expanded clearance zone) to be compatible with the LMWQCC, as assessed by Icon Water. This requirement should not be subject to general zone objectives and development codes and tables (as currently appears to apply under Criterion 1 of the BDPMC);
- 2 a mandatory rule under the BDPMC applies so that any development within the expanded clearance zone (for example ancillary, temporary or minor prohibited uses) must not proceed without Icon Water's approval; and
- 3 the proposed West Belconnen Concept Plan must clearly specify that the rules in the BDPMC have clear priority over other elements of the Territory Plan, including new Precinct Codes, such as the proposed West Belconnen Concept Plan.

Other issues

In addition to the odour considerations above, there are other potential implications for an urban area located close to LMWQCC, as it is an operational plant which handles dangerous chemicals such as chlorine. Although there are safeguards in place to manage these operational risks, if such an event were to occur the event itself and the required emergency response may impact on residents in the proposed development.

If you have any questions, please contact Brett Parsons, Manager Asset Acceptance and Protection at Brett.Parsons@iconwater.com.au or 02 6175 2416. Icon Water looks forward to working with EPD, the NCA and the proponent on the required refinements to the new Precinct Code and the BDPMC.

Yours faithfully



Amanda Lewry



