QUEANBEYAN-PALERANG REGIONAL COUNCIL

Planning and Strategy Committee of the Whole Meeting Attachment

11 APRIL 2018

ITEM 4.1 DETERMINATION REPORT - REVIEW OF ENVIRONMENTAL FACTORS - SOUTH JERRABOMBERRA WATER AND SEWER INFRASTRUCTURE

ATTACHMENT 2 REVIEW OF ENVIRONMENTAL FACTORS - SOUTH JERRABOMBERRA WATER AND SEWER INFRASTRUCTURE - CONDITIONS

Review of Environmental Factors – South Jerrabomberra Water and Sewer Infrastructure

Proposed Determination Conditions

REF1: A Construction Environmental Management Plan (CEMP) is to be prepared and submitted to Council prior to construction works commencing that compiles with the requirements and findings of all management plans required in the Statement of Commitments and the additional conditions. The CEMP is to include:

- details of measures to ensure effective erosion and sediment control in accordance with the EPA's Blue Book
- measures for detection, management and disposal of soil contamination and any wastes generated or encountered during construction.
- measures to treat and manage all noxious weeds in accordance with the Pesticides Act 1999 and the Pesticides Regulation 2009 on site at the start of throughout construction to limit the growth, spread and reproduction of these species.
- an emergency management plan to detail the notification requirements for incidents in accordance with sections 148-152 of the POEO Act.
- standard operating procedure (SOP) for dewatering of sediment basins/dams at the site including incident reporting in accordance with the requirements of 148 of the POEO Act.
- potential environmental issues and objectives.
- the statutory framework including any required approvals and licences, for example any environment protection licenses required under the Protection of the Environment Operations Act, 1997.
- the organisational structure including key environmental roles and responsibilities, and any necessary training requirements.
- monitoring, inspection, auditing and reporting requirements.
- documentation of emergency planning and response procedures in addition to non-conformances and corrective actions.
- specific measures to minimise and/or manage potential environmental impacts during the construction activity including noise, vibration, dust, construction vehicle movements, access disruptions (primarily along Tompsitt Drive), erosion and sedimentation, vegetation removal/protection, and storage of waste and its removal.
- environmental management plans incorporating as a minimum the construction mitigation measures identified in this REF and accompanying servicing strategy by Calibre Consulting.
- environmentally sensitive area work plans, clearly marking sensitive sites such as trees for retention within the work zones, historic (Aboriginal and Non-Aboriginal) sites, areas containing native vegetation and so on.
- environmental work method statements (EWMS) and/or erosion and sedimentation control plans that clearly identify site specific safeguards for compliance with the CEMP.
- Outline any potential bank stability for Jerrabomberra Creek that may be required prior to construction.

REF2: Contamination: Condition required re CEMP as recommended in REF.

REF3: Water Quality, Drainage and Flooding: Condition required re CEMP as recommended in REF.

REF4: Flora and Fauna Ecological: Potential adverse environmental impacts on the local ecosystems shall be minimised and mitigated through appropriate safeguards and environmental controls to be integrated into the CEMP including those relating to:

- Weed management
- Rehabilitation
- Creek bank stabilisation

REF5: Noise and Vibration: Condition of approval that construction shall be in normal hours when working in close proximity to existing dwellings should be provided.

REF6: Bushfire Risk: Condition required re bush fire measures (mowing etc) as recommended in REF.

- Bushfire: pump station building to be constructed to BAL12.5 standard.
- Bushfire: Management of a 10m defendable space around the pump station and reservoir sites
- Regular Quarterly maintenance of the pump station to ensure the vents to the wet wells remain unblocked and methane gases cannot become trapped inside.
- Mowing and other bushfire hazard reduction measures to be undertaken as recommended in REF.

REF11: Visual Impacts: Details of landscaping / reservoir colours to be provided to Council for approval prior to commencement of works.

REF12: Human Health: A detailed plan detailing mitigation measures to reduce the following impacts applicable during construction of the proposed infrastructure is to be submitted to Council for approval prior to commencement of construction works. This shall incorporate below items as a part of Environmental Management Plan and/ or the CEMP.

- *Prepare a Project Safety Plan outlining how occupational health and safety issues are to be managed for the duration of scheme construction and operation. The plan would consider project specific occupational health and safety issues and outline appropriate management controls.*
- *All contractors, sub-contractors and visitors must comply with the requirements of the Project Safety Plan.*
- *Adhere to all relevant occupational health and safety legislation and regulations during the construction and operation of the proposed scheme.*

All chemicals used for odour control and water treatment would be stored in sealed vessels within bunded areas. Chemical storage areas would not be accessible to the public. All storage, transport and handling of dangerous goods by operators would be handled in accordance with the relevant Australian Standards and guidelines.

Maintenance and operation of the proposed scheme would be undertaken in line with Australian Standards and guidelines, and council's existing maintenance procedures. Procedures would minimise potential for human health impacts.

REF13: Aboriginal Heritage: Six Aboriginal sites (PPS7, PPS8, TA2, TA3, TA4 and NER1) are located within 35m of the South Tralee Sewer and Water project area. These sites should be fenced for the duration of construction activities associated with the South Tralee Sewer and Water project. The construction of fences around the sites indicated should be conducted with on-site advice from the project archaeologist. The location of sites should be clearly marked on all site plans utilised for the South Tralee Sewer and Water project. The protocols for the unanticipated discovery of archaeological material and suspected human remains (presented in Appendix 4 of Navin Officer's report) should be implemented if necessary.

REF14: European Heritage: Two European sites (H7 and H9) are located within 35m of the South Tralee Sewer and Water project area. Site H7 (main) should be fenced for the duration of construction activities associated with the South Tralee Sewer and Water project. The construction of fences around the sites indicated should be conducted with on-site advice from the project archaeologist. The location of sites should be clearly marked on all site plans utilised for the South Tralee Sewer and Water project. The protocols for the unanticipated discovery of archaeological material and suspected human remains (presented in Appendix 4 of Navin Officer's report) should be implemented if necessary.

~~**REF15:** OLZ: Commonwealth Department of Infrastructure and Regional Development and/or Canberra Airport~~ (Condition no longer required – Approval obtained~~).~~

~~**SMEC1:** Further consideration of potential geotechnical constraints in the proposed creek crossing is warranted in the REF, including substrate and stream bank stability both during construction and in the long term. This may comprise of a commitment to further assessment by a qualified specialist prior to construction commencing to inform the CEMP. We also recommend that specific design of the crossing site take into consideration the NSW Government 'Guidelines for laying pipes and cables in watercourses on waterfront land' which recommend that pipes or cables be located on the downstream side of channel bedrock outcrops and through the drop deposit zone if a plunge pool is present. In general measures which must be included in the CEMP should be clearly stated, and elements of the design, which require further geotechnical assessment, should be defined.~~ (Condition no longer required – Mains to be attached to bridge).

SMEC2: An updated Constraints map should be prepared incorporating all current AECs and excluding AECs assessed as not contaminated by relevant detailed assessments. The Constraints map (Appendix 2) (see attachment 5) should be updated to reflect the current assessment of AECs and the sources of the AECs identified on the Constraints map should be clearly identified. All relevant contamination site investigation reports should also be included as Appendices to the REF. Section 5.3.2 should provide a summary of the potential risks identified in the contamination assessments which are relevant to the project. To clearly highlight AECs relevant to the proposed sewer and water mains alignment, and inform CEMP preparation, a summarised table of AECs identified along the alignment should be included in the main text of the REF, along with assessment of the identified potential risks and outcomes of preliminary site investigations already undertaken.

SMEC3: A summary of how environmental risks associated with contamination would be mitigated shall be submitted to Council prior to the commencement of work. The recommendations of all relevant contamination assessments should be reviewed and integrated with reference to the CEMP. Any actions outside the scope of the CEMP, such as any further assessment, should be clearly identified.

SMEC4: Temporary fencing is erected around the adjacent structures identified to contain ACM or PACM forming a 10 m exclusion zone around adjacent site buildings;The adjacent structures are suitably labelled to convey the risk of asbestos exposure. A prominent warning sign should be posted in the immediate vicinity of the off-Site buildings if it is not practical to directly label the asbestos containing material. All warning signs should comply with AS 1216 "Class Labels for Dangerous Goods" and AS 1319 "Safety Signs for the Occupational Environment" and the Safe Work Australia's Model Code of Practice How to manage and Control Asbestos in the Workplace; It is recognised that construction workers may be exposed to risk during works associated with redevelopment of the site. It is therefore recommended that a Construction Environmental Management Plan (CEMP) be prepared to include the following as a minimum:

- Asbestos Management;
- Dust & Noise Exposure;
- Waste Management;
- Other Contamination Management;
- Procedure for uncovering unexpected contamination; and
- Personnel Protective Equipment requirements.
- HAZMAT

~~**SMEC4:** CEMP to include control measures to minimise short term impacts on water quality during construction and to include a site rehabilitation plan for the Jerrabomberra Creek Crossing.~~ (Condition no longer required – Mains to be attached to bridge).

SMEC5: ~~CEMP to incorporate control measures to minimise short term impacts on water quality during construction, and includes a site rehabilitation plan for the Jerrabomberra Creek crossing which outlines strategies to ensure long term streambed and streambank stabilisation and revegetation following trenching. Further design of bank stabilisation works may be required. Bank stabilisation plans should ensure that erosion in adjacent areas is not exacerbated, and should take into account future requirements for landscaping and stabilisation along Jerrabomberra Creek.~~ (Condition no longer required – Mains to be attached to bridge).

~~**SMEC6:** Relevant recommendations contained in the NSW Government guidelines for minimising impacts on the hydrologic, hydrological and geomorphic functions of the watercourse should be included in the CEMP. As the pipes would be trenched across Jerrabomberra Creek, the most relevant NSW government guideline is 'Controlled activities on waterfront land: Guidelines for laying pipes and cables in watercourses on waterfront land'. This guideline outlines strategies to avoid and minimise potential adverse impacts resulting from for trenching across watercourses, which should be considered in Section 5.4.2 of the REF for inclusion in the CEMP, including:~~

- ~~prepare rehabilitation plans for disturbed bed and banks~~
- ~~ensure backfilling restores the channel shape and bed level to the preconstruction condition~~
- ~~ensure a trench is open for the minimal length of time~~
- ~~avoid stopping the flow of a permanent watercourse by staging the trench across the channel or minimising the time involved in stopping or intercepting flows~~
- ~~address additional disturbances from temporary coffer dams or diversion of flows around the work site, vehicle or machinery access and crossings, and material stockpiles~~
- ~~prevent potential water quality issues such as turbidity or spills~~

- ~~address the recovery and removal of construction plant and materials~~.

(Condition no longer required – Mains to be attached to bridge).

SMEC7: The extent of defendable spaces be presented on design drawings and potential overlap with areas of ecological significance reviewed along with the nature of fuel management requirements to determine the nature of potential adverse impacts, if any. If potential adverse impacts may occur due to the requirement for defendable space, the REF should demonstrate how these potential impacts are avoided, minimised or mitigated.

SMEC8: A weed management plan, including a construction vehicle weed hygiene protocol, and a revegetation plan be incorporated into the CEMP to ensure that all exposed earth along the alignment and around the reservoirs is revegetated and stabilised with suitable vegetation.

SMEC9: Air quality standards have been referenced in the Odour/Acoustic assessment prepared by Wilkinson

SMEC10: Standard CEMP controls should be implemented to minimise air quality impacts, including dust control and vehicle maintenance protocols.

QPRC1. WATER & SEWER COMPLIANCE CERTIFICATE – DESIGN: Prior to the release of a Construction Certificate (Subdivision) a certificate of compliance in accordance with the Water Management Act 2000 must be obtained from Council.

The application for the certificate of compliance must be accompanied by electronic copies of the Civil Engineering plans for the design of the water reticulation and sewerage systems, drawn in accordance with Council's Queanbeyan Development Specifications (Version 1, dated January 2013) / Development Design Specification - Googong (Version 1, dated June 2011).

QPRC2. SUBMIT TRAFFIC MANAGEMENT PLAN: Prior to demolition works commencing a Traffic Management Plan for the works must be submitted to, and approved by, Council under the provisions of Section 138 of the Roads Act 1993.

QPRC3. INSPECTIONS – WATER & SEWER AUTHORITY: Inspections must be performed by the Water and Sewer Authority (Council) when works reach the following stages:

- Immediately prior to connection of new sewer pipes to the existing sewerage system,
- Immediately prior to connection of new water pipes to the existing water reticulation,
- Immediately prior to the backfilling of sewer drainage trenches, and
- Immediately after installation of any on-site stormwater management system.

Council's Development Branch must be given 24 hours notice of the need for these inspections.

Note: Any inspections carried out by Council do not imply Council approval or acceptance of the works, and do not relieve the Developer from the requirements to provide an Engineering Construction Certificate Report in accordance with Council's Design and Construction Specifications.

QPRC4. WORK IN ACCORDANCE WITH ENGINEERING SPECIFICATIONS: All construction and restoration work must be carried out strictly in accordance with the approved drawings and Council's Queanbeyan Design and Construction Specifications (Version 3.2, dated January 2013) / Googong Design and Construction Specifications (Version 1, dated June 2011).

QPRC5: PROTECTION OF WORKS ON PUBLIC ROADS: Lighting, fencing, traffic control advanced warning signs must be provided for the protection of works and for the safety and convenience of the public, in accordance with Council's Queanbeyan Design and Construction *Specifications* (Version 3.2, dated January 2013) / *Googong Design and Construction Specifications* (Version 1, dated June 2011).

Traffic movement in both directions on public roads and vehicular access to private properties must be maintained at all times, during the currency of the works.

QPRC6. Infrastructure Alignment and Easement for Future Development: Prior to the commencement of work a detailed design is required showing the realignment of any civil or utility infrastructure and provision of easements that may be required for the future development areas incorporated in this proposal. The future connection mechanism must have appropriate service authority approvals provided with the design submission. Any easements required shall be included on the relevant land titles prior to completion of work.

QPRC7. Infrastructure realignment: All trunk mains shall be designed so as to be constructed as part of the new intersection required for Tompsitt Drive and the proposed northern entry road**.** A detailed design is required showing the realignment of any civil or utility infrastructure and provision of easements that may be required at the Tompsitt Drive intersection. The realignments must have appropriate service authority approvals provided with the design submission.

QPRC8. Chemical Dosing: Provide the design, supply and installation of a suitable chemical dosing facility for the sewer rising main to ensure the discharge of effluent from the rising main where detention times are exceeded have no septicity that will affect the operation of the Queanbeyan Waste Water Treatment Plant.

QPRC9. Blasting: Prior to any blasting a blasting management plan is to be submitted to Council for approval. The blasting management plan shall be in accordance with Queanbeyan-Palerang Regional Council's Development Design and Construction Specification.

QPRC10. Water and Sewer Bridge Crossing: Water and Sewer infrastructure shall be designed to allow for it to cross Jerrabomberra Creek as part of the Bridge structure.

A Detail of the Creek crossing and asset placement on the bridge shall be provided to Council for approval. The design basis for the infrastructure to run across the bridge shall be The Water Supply Code of Australia Part 1 Design, Construction and Standard Details.

QPRC11. Sewer Pump station – Vent and Air Quality: A detailed design is required showing the pump station vent to facilitate the generated gas to evaporate and dispersed in the environment without blocking the vent mechanism and reducing odour coming from sewer vent stack. A Filter mechanism shall be added to the vent to mitigate any odour. Regular Quarterly check and maintenance schedule plan for the pump station shall be developed to address vent blocking and odour issues and provided to council for approval and operational adoption.

***Add01*:** Council has received a letter dated 21 July 2017 (See Attachment item 4) from Department of Infrastructure and Regional Development, approving the controlled activity of the high level reservoir, penetrating airspace for Canberra Airport as part of DA documents, with following conditions.

- The reservoir must not exceed a maximum height of 781.2 metre AHD, inclusive of all vents and other ancillary structures, etc.
- The proponent must advise Airservices at least 3 business days prior to the controlled activity commencing by emailing IFP@airservicesaustralia.com and quoting " CB-CA-028"
- Separate approval must be sought under the Regulations for any cranes required to construct the reservoir. Construction cranes may be required to operate at a height significantly higher than that of the proposed controlled activity and consequently, may not be approved under the Regulations. Therefore, it is advisable that the approval to operate construction equipment (i.e. cranes) should be obtained prior to any commitment to construct.

At the completion of the construction of the reservoir, a certified surveyor is to notify (in writing) the airfield design manager of the finished height of the reservoir.

Add02: *To manage potential erosion caused by excess water discharges, site specific erosion and sediment control plans are required where there is land disturbance associated with works along the drainage line prepared in accordance with Managing Urban Stormwater: Soils and Construction Vol 1 and included in the Construction Environmental Management Plan. Detailed erosion and sediment control plans should also refer to relevant Volume 2 guidance including installation of gas and water pipe lines in Managing Urban Stormwater: Soils and Construction, Vol 2A Installation of Services; and for access roads and creek crossings in Managing Urban Stormwater: Soils and Construction, Vol 2C Unsealed Roads.*

Add03*: All wastes generated during the project must be managed in a manner that prevents the pollution of waters and air. Waste must be classified in accordance with the POEO Act and Waste Classification Guidelines (DECCW, 2010). All waste materials must be taken to a place which can lawfully receive them in accordance with the requirements of the POEO Act.*

Add04*: All works on waterfront land, including the stormwater outlet and energy dissipation structure associated with excess water discharges and any reconfiguration of the natural drainage line, be designed in accordance with the "Guidelines for Controlled Activities on Waterfront Land (DPI 2012).*

Add05*: Construction works are to comply with the Building Code of Australia's AS3959-2009 – Construction of Buildings in bushfire-prone areas.*

Add06*: Storage areas for fuels, oils and chemicals used during construction will be covered and contained within an impervious bund to retain any spills of more than 110% of the volume of the largest container in the bunded area. Any spillage will be immediately contained and absorbed with a suitable absorbent material. The contaminated material will be disposed of according to manufacturers and OEH requirements.*

Add07*: Site plans must include the entire extent of AHIMS sites and identify adequate exclusion zones to avoid construction impacts.*

Add08: *A development application is to be submitted for temporary storage of equipment and temporary access roads to be located in Applicant's property.*

QUEANBEYAN-PALERANG REGIONAL COUNCIL

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11 APRIL 2018

ITEM 4.1 DETERMINATION REPORT - REVIEW OF ENVIRONMENTAL FACTORS - SOUTH JERRABOMBERRA WATER AND SEWER INFRASTRUCTURE

ATTACHMENT 3 LETTER - DEPT. PLANNING AND ENVIRONMENT - 19 OCTOBER 2017

NSW GOVERNMENT Planning & Environment

17/14340

Clare Gilligan
Project Manager
Village Building Company
92 Hoskins Street
Mitchell ACT 2911

Dear Clare

I refer to your email dated 12 October 2017 seeking confirmation of access arrangements for the South Jerrabomberra urban release area (URA) and the location of the Dunns Creek Road Corridor.

As you are aware the Department is currently preparing a voluntary planning agreement between the Minister and Village Building Company (VBC) regarding the provision of designated State public infrastructure, comprising the upgrade of the Tompsitt/Lanyon intersection and the provision of land for a primary school. The planning agreement is being drafted to enable VBC to address satisfactory arrangements for State infrastructure for development under clause 6.1 of the Queanbeyan Local Environmental Plan (South Tralee) 2012.

The planning agreement will reflect the outcomes of previous meetings, discussions and negotiations between the Department, VBC, Queanbeyan Palerang Regional Council (Council), Roads and Maritime Services (RMS) and NSW Department of Education to enable VBC to progress with the development of land within South Tralee.

It has been agreed that the planning agreement will be based on the construction of only one access for the Urban Release Area (URA) via Tompsitt Drive (northern access road), on the assumption that future upgrades to the Tompsitt/Lanyon intersection can accommodate traffic for a total development capacity of 1,500 dwellings.

The provision of a single access is subject to identifying and securing a road corridor between the URA and the Monaro Highway, via Sheppard Street in the ACT, and the provision of a second emergency vehicle access point. The corridor will retain the option of a second road access, if required in the future.

Should you have any further questions in relation to this matter, please contact Graham Judge, at the Department on 6229 7906.

Yours sincerely

19/10/17

Deanne Frankel
Acting Director Regions
Southern

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QUEANBEYAN-PALERANG REGIONAL COUNCIL

Planning and Strategy Committee of the Whole Meeting Attachment

11 APRIL 2018

ITEM 4.1 DETERMINATION REPORT - REVIEW OF ENVIRONMENTAL FACTORS - SOUTH JERRABOMBERRA WATER AND SEWER INFRASTRUCTURE

ATTACHMENT 4 SUBMISSIONS - REF - SOUTH JERRABOMBERRA WATER AND SEWER INFRASTRUCTURE

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29 August 2017

Portfolio General Manager
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By email: council@qprc.nsw.gov.au

Dear Mr Thompson

Review of Environmental Factors: South Jerrabomberra Water and Sewer Servicing Infrastructure Strategy

1. We have been instructed to make submissions on behalf of Sandra Walsh in relation to the 'Review of Environmental Factors: South Jerrabomberra Water and Sewer Servicing Infrastructure Strategy' dated May 2017 prepared by Knight Frank Town Planning on behalf of Queanbeyan-Palerang Regional Council (**REF**). Sandra Walsh is the owner of the land identified in the REF as the Walsh Land.

2. On 20 September 2016, we provided a submission on a previous version of the REF (**previous REF**) dated June 2016. We note that the proposal remains largely unchanged, therefore we enclose our previous submission and repeat the comments made in that submission.

3. Our client has a number of concerns regarding the adequacy of the REF and the proposed works.

4. Section 1.5 of the REF states that legal advice has been sought to determine whether any approvals may be required from other agencies with respect to the proposal and that the advice can be found in Appendix 13. Appendix 13 is not exhibited therefore difficult to understand the REF as a whole. Without this crucial document the REF has not been properly exhibited.

5. A number of sections in the REF state that various statutory approvals and consents are not required because Council is a public authority and is therefore exempt from obtaining those approvals and consents. For example section 4.5.3 of the REF states that:

> [P]ursuant to Clause 38 of the *Water Management (General) Regulation 2011*, public authorities are exempt from the requirements of Section 91E of the WM Act [*Water Management Act 2000*]. As QPRC is a public authority, approval is not required under Section 91E of the WM Act.

Section 4.5.5 of the REF states that:

> It is understood that Tompsitt Drive is under the care and control of QPRC. Clause 5 of Schedule 2 of the *Roads Act 1993* relates to the application of Section 138. Section 138 does not require a public authority to obtain a roads authority's consent to exercise its functions in, on or over an unclassified road other than a Crown road.

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6. The works are to be undertaken by the proponent for the South Tralee release (Canberra Estates Consortium No.4). Even if these works are to be undertaken on behalf of Council these exemptions only apply where work is undertaken 'by' a public authority or at most an agent of a public authority. That is not the case. The REF is incorrect in this regard.

7. The REF assumes that the work is undertaken 'by or on behalf of' Council for the purposes of SEPP Infrastructure and as a result does not require development consent. While it is clear the work will be done pursuant to a planning agreement, it is less clear that the infrastructure will ultimately become public assets with the result that the works are undertaken by or on behalf of Council. In the absence of Appendix 13 being exhibited we do not comment further on this.

8. In our submission on the previous REF we identified that the REF is deficient for not considering mandatory relevant matters, in particular cumulative impacts and the impacts of sewage treatment and disposal during operation. As a result, the REF does not form a proper and sufficient basis for determining to proceed with the proposed works. The revised REF has not considered cumulative impacts. It is impermissible for the REF to take the position, as it does, that these matters have been considered by the Minister for Planning and Department of Planning.

9. Associated with this issue is that the REF fails to discuss timing of works or to grapple with the timing of the various planning proposals that are currently being considered by the Department of Planning and Council.

10. The REF identifies four main development stages that are proposed to service the South Jerrabomberra sewer catchment area, being:

- Stage A – South Tralee Stage 1;
- Stage B – South Tralee Stage 1 + South Tralee Stages 2-5;
- Stage C – South Tralee + Morrison, Forrest and Walsh; and
- Stage D (Ultimate) – South Tralee, Morrison, Forrest, Walsh + Environa.

11. According to the REF, Stage A and Stage B will inform the current REF application and Stage C and Stage D are future stages that have been identified to show the ultimate sewer network. The REF states:

> It is unclear when Stage D will be constructed and the extent of demand that will be needed to be serviced from the sewer pump station, due to the various demands possible from a commercial development. It is recommended that no ultimate demand infrastructure be constructed until the actual Environa demand and timing of this demand is known.

12. The REF does not provide a timeframe for the Stage C and Stage D works and in our view it needs to do so even if in a qualified manner.

13. The Stage C and Stage D works have direct implications for our client. The proposed works do not make adequate provision for the servicing of the Walsh Land or other land at South Jerrabomberra. In particular the plans in Appendix 2 appear to show the infrastructure being well short of the boundary of our client's land with no provision being made for how the infrastructure from our client's land will be able to bridge that gap. An easement should be indicated and committed to ensure that all of the Walsh land and South Tralee land can connect to the infrastructure corridor and lay in necessary pipes and infrastructure.

14. Of less importance, the REF has some inaccuracies. Some examples are provided below:

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- Section 4.3.4 refers to a 'Detailed Site Investigation' undertaken by SMEC Consultants for South Tralee in Appendix 12. Appendix 12 is a Preliminary Site Investigation with Limited Intrusive Assessment. This assessment cannot be considered a detailed site investigation.

- Section 4.6.1 states 'A review of the list provided by the Commonwealth department responsible shows that no listed migratory species is likely to find important habitat in the study area nor is there likely to be an ecologically significant proportion of a population of a migratory species.' (at page 45-46). The source of this information should be referenced and the information verified to provide confidence that the conclusion is correct.

Please contact Patrick Ibbotson on **(02) 9291 6169** if you have any questions.

Yours faithfully

Patrick Ibbotson
Partner

Enc

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20 September 2016

The General Manager
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Also by email: council@qprc.nsw.gov.au

Dear Mr Pretorius

Review of Environmental Factors: South Jerrabomberra Water and Sewer Servicing Infrastructure Strategy

Introduction

1. We have been instructed to make submissions on behalf of Sandra Walsh in relation to the 'Review of Environmental Factors: South Jerrabomberra Water and Sewer Servicing Infrastructure Strategy' dated June 2016 prepared by Knight Frank Town Planning on behalf of Queanbeyan-Palerang Regional Council (**REF**). Sandra Walsh is the owner of the land identified in the REF as the Walsh Land.

2. Our client has a number of concerns regarding the adequacy of the REF, the scope of works proposed and the implementation of the REF.

3. Those concerns include that:

   3.1 the REF is deficient in not considering mandatory relevant matters, in particular cumulative impacts and the impacts of sewage treatment and disposal during operation. As a result, the REF does not form a proper and sufficient basis for determining to proceed with the trunk sewer and water infrastructure;

   3.2 the proposed scope of works does not make adequate provision for the servicing of the Walsh Land or other land at South Jerrabomberra; and

   3.3 the proposed scope of works only makes provision for the temporary servicing of South Tralee and does not provide for the funding or implementation of the necessary permanent infrastructure that is required to service South Tralee. This passes the risk of the costs of the permanent servicing of South Tralee to the Council or to Sandra Walsh and other land owners.

4. AE Design Partnership has made previous submissions to Council on Sandra Walsh's behalf in relation to the draft 'Development Servicing Plans for Water Supply and Sewerage 2015-16 South Jerrabomberra' and the draft South Tralee Local Planning Agreement which are **enclosed** and form part of this submission. We will also be making further submissions on the technical aspects of the REF which will follow these submissions given the limited time available to review the REF.

The Scope of the REF and the trunk sewer and water works

5. The REF was prepared on behalf of Council in relation to a proposal for the 'design and construction of proposed trunk water and sewer infrastructure works for the proposed

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release area of South Tralee and the surrounding South Jerrabomberra area that CEC4 will construct on behalf of Queanbeyan-Palerang Regional Council.'

6. The REF identifies that South Jerrabomberra includes 'Poplars, North Tralee, Environa, Forrest and Walsh Lands' shown in Figure 1 of the REF.[1]

7. It is clear from a number of statements in the REF that the REF is for the purpose of the proposed trunk water supply and sewer for the South Jerrabomberra area – with the first stage of this, according to the REF, being South Tralee. In this regard, the REF states:

   7.1 (page 2) 'This REF has sought to identify the potential environmental impacts of proposed trunk water supply and sewer infrastructure required to service future development within South Jerrabomberra, in particular South Tralee;'

   7.2 (page 2) 'Due to the topography of South Jerrabomberra the water supply and sewer infrastructure has the potential to service seven future development precincts within the South Jerrabomberra catchment including Poplars, Environa, North Tralee, South Tralee, Morrison, Forrest and Walsh;'

   7.3 (page 2) 'To service the three identified pressure zones within the South Jerrabomberra Catchment…;'

   7.4 (page 3) 'This Review of Environmental Factors (REF) has been prepared to assess the potential environmental impacts of the proposed scheme…;'

   7.5 (page 4) 'The proposed infrastructure is considered essential to the future impacts and development of land in South Jerrabomberra;' and

   7.6 (page 5) 'Queanbeyan Palerang Regional Council (QPRC) has requested a Review of Environmental Factors (REF) be prepared on their behalf to detail the design, construction and potential environmental impacts arising from proposed trunk sewer and water infrastructure works to be carried out for the proposed release area of South Tralee and the surrounding South Jerrabomberra area. This includes Poplars, North Tralee, Environa, Forrest and Walsh Lands as shown in Figure1 below.'

8. The REF has identified that the proposed trunk sewer and water infrastructure is to be undertaken by Canberra Estates Consortium No.4 (**CEC4**) on behalf of Council in accordance with a 'Local Planning Agreement' (**Planning Agreement**). The Planning Agreement was advertised in draft form and appears on Council's web site. That Planning Agreement identifies that:

   8.1 (Recital B) The Council wishes to provide the services and amenities in the South Jerrabomberra Urban Release Area to facilitate development of that area;

   8.2 (Recital C) The Council has prepared a list of necessary services and amenities for South Jerrabomberra Urban Release Area, and identified when those services and amenities are required, which is identified in Schedule 2 of this deed;

   8.3 (Recital D) The Council has accepted the Developer's offer to make the Development Contributions, which will result in the provision of part of the services and amenities necessary for the development of the South Jerrabomberra Urban Release Area.

9. Clause 9 of the Planning Agreement requires the Developer to make or carry out Development Contributions as identified in Schedule 2.

[1] Paragraph 1.1

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10. Schedule 2 of the Planning Agreement provides for water and sewer trunk infrastructure as follows:

	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7
Item	Contribution Category	Public Purpose	Manner and Extent	Timing	Maximum Contribution Value (Ex GST)	Surplus Value (Ex GST) determined by reference to Schedule 3
5.01 Dedication of land for drainage and stormwater	Drainage and stormwater management	Public infrastructure – drainage and stormwater management	The Developer is to dedicate 1.24 hectares of land that serves the stormwater management needs of South Tralee, on which the Works set out in Item 5.02 will be carried out. (Stormwater treatment for South Tralee only.)	To be dedicated in accordance with the timing set out for Item 5.02.	$351,320	0

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7
Item	Contribution Category	Public Purpose	Manner and Extent	Timing	Maximum Contribution Value (Ex GST)	Surplus Value (Ex GST) determined by reference to Schedule 3
5.02 Drainage and stormwater management facilities	Drainage and stormwater management	Public infrastructure – drainage and stormwater management	The Developer is to complete Works that meet the stormwater management needs of the Development as per approved Stormwater Concept masterplan including ponds 1, 2, 3 and 7. For details of the cost estimates refer to Schedule 7. (Stormwater treatment for South Tralee only.)	As required by the Development Consents for the Development or as required to enable efficient stormwater management Works to be constructed.	$2,275,000	0
Sum of Contribution Values for Drainage and Stormwater Contribution Category is:					$2,626,320	$0
Sum of Contribution Values for Drainage and Stormwater Contribution Category (per dwelling) is:					$2,151	$0

	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7
Item	Contribution Category	Public Purpose	Manner and Extent	Timing	Maximum Contribution Value (Ex GST)	Surplus Value (Ex GST) determined by reference to Schedule 3
7.01 Land for Sewer and Potable Water Infrastructure	Sewer and Potable Water Infrastructure	Provide sewage and potable water infrastructure sites to meet the demands of South Jerrabomberra	Subject to detailed design and final survey, the Developer is to dedicate 2.48 hectares of land on which the Works set out in Item 6.02 will be carried out.	To be dedicated progressively in accordance with the timing set out for Item 7.02.	$87,600	$50,115
7.02 Sewer and Potable Water Infrastructure	Sewer and Potable Water Infrastructure	Provide sewage infrastructure to meet the demands of the Development and part of South Jerrabomberra	The Developer is to complete and dedicate the Works that meet the water supply and sewage treatment needs of South Tralee, including the following:	To be provided in phases with each phase to be constructed prior to the issue of a Subdivision Certificate for the creation of lots that would generate the demand that	$13,270,000	$7,183,600

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7
Item	Contribution Category	Public Purpose	Manner and Extent	Timing	Maximum Contribution Value (Ex GST)	Surplus Value (Ex GST) determined by reference to Schedule 3
				exceeds the capacity of the previous phase.		
			A sewer pump station. A sewer rising main. A gravity sewer main. Trunk watermains. Two water reservoirs. A booster pump station. Facilities as indicated within plan C13065-D190-192, 220 considered within Council's assessment of the approved Urban Concept DA 263-2013. South Tralee accounts for 55% equivalent dwellings for potable water and 52% equivalent tenements for sewer. For details of the cost estimates refer to Schedule 6.			
Sum of Contribution Values for Sewer and Potable Water Infrastructure Contribution Category is:					$13,357,600	$7,233,715
Sum of Contribution Values for Sewer and Potable Water Infrastructure Contribution Category (per dwelling) is:					$10,940	$5,924

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11. The Planning Agreement does not make provision for the costs of the implementation of all of the ultimate infrastructure required for South Tralee.

Inadequate Assessment of the Matters Affecting the Environment and Failure to Consider Mandatory Relevant Considerations

12. The REF fails to 'examine and take into account to the fullest extent possible all matters affecting or likely to affect the environment by reason of' Council's proposal for the design and construction of proposed trunk water and sewer infrastructure works for the proposed release area of South Tralee and the surrounding South Jerrabomberra area in accordance with section 111 of the *Environmental Planning and Assessment Act 1979* (**EPA Act**).

13. The areas of concern that we have include that:

13.1 the REF does not consider the cumulative impacts of the activity; and

13.2 the REF does not properly consider the operation of the activity.

14. In *SHCAG Pty Ltd v Hume Coal Pty Ltd [2015] NSWLEC 122* Pain J held at [183] that while section 111 if the EPA Act does not itself refer to cumulative impacts expressly, as 'the objects of the EPA Act include the protection of the environment and cumulative impact is widely regarded as an aspect of environmental impact assessment, I find that cumulative impact assessment is a mandatory relevant consideration under s111 provided that an evidentiary basis exists for such a requirement…'

15. The relevant evidentiary basis exists in this matter because:

15.1 the REF itself refers to the projected (likely) future release of land other than South Tralee;

15.2 the purpose of the REF is 'to identify the potential environmental impacts of proposed trunk water supply and sewer infrastructure required to service future development within South Jerrabomberra…;' and

15.3 the trunk infrastructure is 'essential to the future impacts and development of land in South Jerrabomberra' and the purpose of the activity is to service South Jerrabomberra, rather than South Tralee only.

16. The development of South Tralee and the other land at South Jerrabomberra is the whole reason the water and sewer infrastructure is required. The activity and those developments are inextricably linked. The infrastructure is indeed the key facilitating work designed and intended to facilitate the future development of South Tralee and the other land at South Jerrabomberra in a manner entirely consistent with *Queensland Conservation Council Inc v Minister for the Environment and Heritage* [2003] FCA 1463 which has been referred to with approval in numerous NSW decisions including *SHCAG Pty Ltd v Hume Coal Pty Ltd* [2015] NSW LEC 122. In this situation the cumulative impacts include the cumulative impacts of the facilitated development of South Tralee and the other land at South Jerrabomberra.

17. However, the REF makes no attempt to assess those impacts.

18. Additionally, clause 228(2)(o) of the *Environmental Planning and Assessment Regulation 2000* (**EPA Regulations**) requires that an assessment under s 111 also consider 'any cumulative environmental effect with other existing or likely future activities.' This requirement does not limit the requirement to consider cumulative impacts that is inherent in the obligation to consider the environmental impact of the activity.

19. The REF does refer to the obligation in clause 228(2)(o) of the EPA Regulations, but refers only to future sewage and water infrastructure implementation having been assessed as part

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of the South Jerrabomberra Structure Plan 2013 and the Queanbeyan Residential and Economic Strategy 2031 as follows:

(o) Any cumulative environmental effect with other existing or likely future activities?	There would not be any cumulative environmental effects with other existing or likely future activities.	The proposed work is an integral component of the Queanbeyan Residential and Economic Strategy 2031, and South Jerrabomberra Structure Plan 2013, which have been addressed. Potential cumulative impacts associated with the proposed sewer and water infrastructure, have been appropriately assessed and endorsed by the NSW Department of Planning and Environment.	Negative, long term

20. This is not an assessment of the impacts, nor an incorporation by reference. Instead, it is a clear statement that the impacts have not been considered in the REF.

21. Further, the table itself is inconsistent because it refers to the REF assessment as being that there would not be any cumulative environmental effects but that the impacts are said to be "negative, long term" – whatever that means.

22. The environmental impacts of the activity include **the operation** of the sewer infrastructure and this includes the treatment and disposal of sewage. The disposal of sewage during operation is a mandatory requirement to be considered under clause 228(2)(m) of the EPA Regulations. In this regard there is no assessment of the impacts of waste disposal during operation. The only comment made in Appendix 1 to the REF is that the 'project enables the appropriate treatment and disposal of sewage from the future development area of South Jerrabomberra.' That being so, it is necessary to at least turn Council's mind to what the impacts of that treatment and disposal will be.

23. The assessment appears to be focussed only on the impacts of the construction and the localised impacts of operation of the proposed sewer and water related infrastructure and does not take into account the impact of the future residential development proposed for South Tralee, or any of the surrounding South Jerrabomberra area, that will be facilitated by the operation of the sewer and water services (see *Fullerton Cove Residents Action Group Incorporated v Dart Energy Ltd (No 2)* [2013] NSWLEC 38 at [224]).

24. More is required both to comply with clauses 228(2)(m) and (o) of the EPA Regulations and to comply with s 111 of the EPA Act. A level of perfection is not required but the REF at least needs to advert to and consider the cumulative impacts of:

24.1 the future extension of the sewer and water trunk infrastructure to service land other than South Tralee;

24.2 the development of South Tralee for residential purposes;

24.3 the development of the other land in South Jerrabomberra for residential purposes; and

24.4 the operation of the sewer and the impacts of the treatment and disposal of sewage in conjunction with other future developments.

Provision for expected development at South Jerrabomberra for which the infrastructure is critical

25. While the REF was prepared on Council's behalf to 'detail the design, construction and potential environmental impacts arising from proposed trunk sewer and water infrastructure works to be carried out for the proposed release area of South Tralee and the surrounding Jerrabomberra area', the works and provisions described in the REF are primarily for the

development of the future residential area of South Tralee only. Adequate legal and technical provision is not made for the anticipated future development of the surrounding South Jerrabomberra area, in particular the Walsh Land.

26. In this regard, we comment as follows:

26.1 The fact that the infrastructure must ultimately service the Walsh Land and the inextricable links between the infrastructure and the development of South Jerrabomberra is acknowledged throughout the REF.

26.2 The connection of the sewer services to the Walsh Land has been identified as forming part of Stages C and D, however the timing of the construction of the works forming part of Stages C and D is not stated.

26.3 It is recommended that no 'ultimate demand infrastructure' be constructed until the actual Environa demand and timing of this demand is known' and 'timing for the construction of the ultimate infrastructure is subject to development timeframes which are unknown but could be assumed to be at least 10 years plus;'[2]

26.4 There is no clear indication of when or if the water services will be connected to the Walsh Land. The REF merely states that the 'proposed trunk infrastructure will be required to be staged based on when proposed developments becomes developed' and assumes that the 'first development of South Jerrabomberra will be the South Tralee development with the first stage of Tralee located within the Low Level pressure zone boundary.' [3]

26.5 The works described in the REF do not make provision for the connection of the Walsh Land to the sewer and water services. In this regard:

26.5.1 the engineering and other drawings show the infrastructure as stopping some distance short of the Walsh Land;

26.5.2 no commitment is made to allow Walsh to connect to the sewer and water services or for the sewer and water services to operate on the Walsh Land; and

26.5.3 no easement or other right is anticipated to allow Walsh to connect to or use the sewer and water infrastructure.

27. It is essential that these matters be specifically addressed. There must be a clear connection point for the sewer and water services to connect to the Walsh Land with a clear right to connect to and to use the infrastructure including necessary easements for this purpose. Council should not commit to constructing the water and sewer servicing infrastructure until these matters are fully addressed.

28. It appears that at some point in the REF's preparation the view has been taken to benefit South Tralee at the expense of other land owners. Despite the purpose of the REF being to assess the services necessary for South Jerrabomberra, ultimately what appears to be proposed is to stage the works so that temporary works are put in place to allow South Tralee to be developed while leaving the costs of meeting the ultimate infrastructure requirements (including those necessary for South Tralee) to later developers. This is grossly unfair.

29. The works described in the REF are the construction and implementation of the required sewer infrastructure for Stage A (being a **temporary** 110mm HDPE main laid within a future 375mm main trench) and Stage B (being a 225mm rising main adjacent to the future 375mm

[2] Paragraphs 3.3.2 and 3.5.1
[3] Executive Summary page 2

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main trench), which will service the South Tralee residential area. The REF states that no ultimate demand infrastructure should be constructed at this stage.

30. The provision of the sewer and water services to the Walsh Land is identified as being within Stage C or D. The REF appears to contemplate that when the Walsh Land is developed:

30.1 the 110mm HDPE main installed under Stage A will be removed and a 375mm main will be constructed;

30.2 225mm rising main will be temporarily decommissioned until stage D; and

30.3 some additional works will be required for the pumping station.

31. The result of this is that:

31.1 the developer of South Tralee is able to construct what are described as temporary services for South Tralee; and

31.2 when the Walsh Land is developed someone will have to pay for those temporary works to be decommissioned and the permanent and properly sized infrastructure installed.

32. In this regard, there is no provision made in the draft Planning Agreement for further monetary contributions from the developer of South Tralee. The net effect of this is that the developer of South Tralee has pushed the cost of the ultimate infrastructure onto the developer of the Walsh Land or to Council.

33. The ultimate infrastructure will serve both South Tralee, the Walsh Land and other surrounding land at South Jerrabomberra. If a temporary solution for South Tralee is regarded as suitable then there should be provision made for the developer of that land to pay a contribution to Council now for their share of the works required to install the permanent infrastructure including:

33.1 a proportion of the costs to upgrade the pumping station;

33.2 a proportion of the costs to lay in appropriately sized permanent mains; and

33.3 the whole of the costs to decommission the temporary infrastructure.

Other Matters

34. We will be making further submissions on the technical aspects of the REF which will follow these submissions given the limited time available to review the REF. In the meantime, we refer to the **enclosed** submissions made by AE Design Partnership to Council on Sandra Walsh's behalf in relation to the draft 'Development Servicing Plans for Water Supply and Sewerage 2015-16 South Jerrabomberra' and the draft South Tralee Local Planning Agreement.

Please contact Patrick Ibbotson on **(02) 9291 6169** if you have any questions.

Yours faithfully

Patrick Ibbotson
Partner

Enc

ae design partnership
architecture urban design planning

23 May 2016

The General Manager
Queanbeyan City Council
PO Box 90
Queanbeyan NSW 2620

via email : council@qcc.nsw.gov.au

South Tralee Local Planning Agreement
Planning Agreement

This submission is made on behalf of Tuggeranong Investments Pty Ltd the landholder of Tralee Station. Over 50ha of Tralee Station is located within southern portion of South Jerrabomberra, which received Gateway approval recently.

We note that this agreement does not bind Tuggeranong Investments Pty Ltd to the application of the proposed deed. There are assumptions and costs inferred to Tralee Station, which we have provided comments to below:

- The assumption that Tralee Station will have 280 Dwellings within Schedule 3, Equivalent Dwelling Quotients anticipated within South Tralee is lower than expected and does not reflect the recent gateway endorsement.
- Schedule 12, anticipates that Forest and Walsh share the Council Costings and Off Site Road, which is not reasonable considering the disproportion of dwellings forecasted between Walsh and Morrison.
- There is no mechanism within the deed to compel developers to provide servicing to their boundaries to enable development adjacent to connect in the future.
    - It would be nonsensical for future development to rely upon connecting to services, which does not form part of their land ownership.
    - An Infrastructure agreement should be developed to ensure that infrastructure can be delivered to all future residential areas particularly at Tralee Station.
    - Any Easement that traverses from Tralee Station into South Tralee Stage One needs to be preserved within the planning agreement.

We recommend that a timeline be incorporated within an updated agreement to service the southern portion of South Jerrabomberra.

It is recommended that Council and Village commence negotiations with Tuggeranong Investment Pty Ltd to develop an agreement to service Tralee Station to enable the orderly development of this site.

It is recommended that Village Building Company and Council provide more information in relation to Stage One and future stages and actively engage with Tuggeranong Investment Pty to facilitate the development of services for Tralee Station.

ae design partnership
architecture urban design planning

We would be happy to discuss this matter further, please contact me on 9519 4994 or tristan@aedesignstudio.com.au

Sincerely,
ae design partnership pty ltd

Tristan Kell
Associate Director

ae design partnership

11 May 2016

The General Manager
Queanbeyan City Council
PO Box 90
Queanbeyan NSW 2620

via email : council@qcc.nsw.gov.au

Submission to Development Servicing Plans for Water Supply and Sewerage
2015/16 South Jerrabomberra DRAFT

This submission is made on behalf of Tuggeranong Investments Pty Ltd the landholder of Tralee Station. Over 50ha of Tralee Station is located within southern portion of South Jerrabomberra, which received Gateway approval recently.

- The intention of Council to provide servicing plans for South Jerrabomberra cover water supply and sewerage developer charges for South Jerrabomberra is supported.
- We are concerned that the document does not provide any certainty for the delivery of water and sewage to the southern landowners, such as Tralee Station.
- There is no mechanism within the document to compel developers to provide servicing to their boundaries to enable development adjacent to connect in the future.
    - It would be nonsensical for future development to rely upon connecting to services, which does not form part of their land ownership.
    - An infrastructure agreement should be developed to ensure that infrastructure can be delivered to all future residential areas particularly at Tralee Station.
- Map 6.2 within Appendix B indicates that the Water Supply Main will end within the Forest Morrison Portion of landownership. It is requested that this diagram be amended to end at the boundary of Tralee Station.
    - A diagram is attached as an appendix to this submission.
- We recommend that a timeline be incorporated within an updated agreement to service the southern portion of South Jerrabomberra.

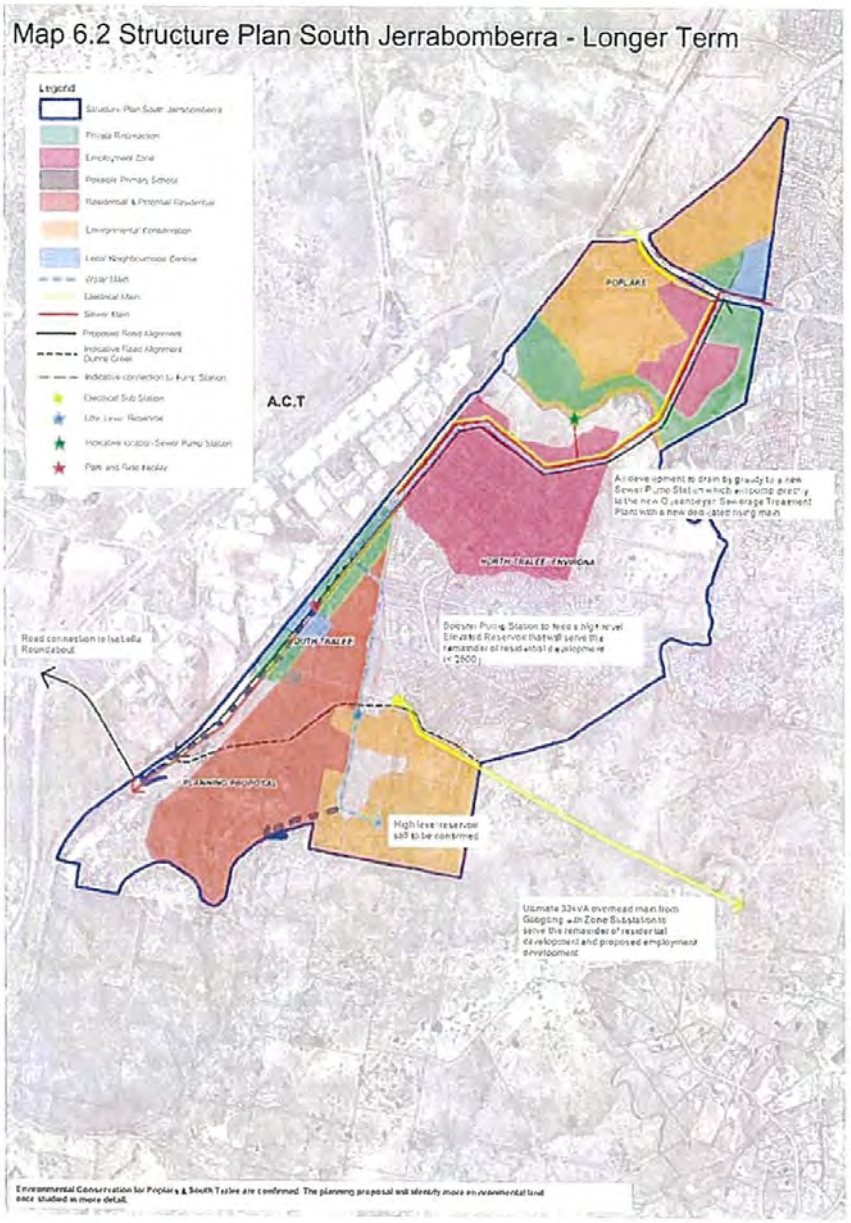
It is recommended that Council consider the implementation and delivery of services for the whole of South Jerrabomberra, which will allow the efficient and orderly development.

We would be happy to discuss this matter further, please contact me on 9519 4994 or tristan@aedesignstudio.com.au

Sincerely,
ae design partnership pty ltd

Tristan Kell
Associate Director

Development Servicing Plans – South Jerrabomberra



extension of water main

TK
10/13/16

(Source: South Jerrabomberra Structure Plan, 2013)

Queanbeyan City Council

32

From: Your Voice QPRC [mailto:notifications@engagementhq.com]
Sent: Friday, 18 August 2017 4:46 PM
To: Your Voice <yourvoice@qprc.nsw.gov.au<mailto:yourvoice@qprc.nsw.gov.au>>
Subject: David Larcombe completed Comments on the Review of Environmental Factors

David Larcombe just submitted the survey 'Comments on the Review of Environmental Factors' with the responses below.

Please provide any comments that you have on the REF

Hi, On reviewing all your documentation, the location for the sewer pump station is located in 2 different positions. Can you please confirm which is the correct one. Review of Environmental Factors dated May 2017, has the pumping station on Jerrabomberra Creek. Appendix 3 Engineering Drawings June 2016 has the Sewer Pumping station in a compleatly different location. If the location has been changed from the 2016 site to the 2017 site, can I please see the Engineering Drawings so as to be able to accuratly assess the environmental ramifications. I also not that in Figure 5 of Review of Environmental Factors, South Jerrabomberra Water and Sewer Servicing Infrastructure Strategy, May 2017, there is the name North Tralee/Environa. This is misleading as this area is only Environa. North Tralee is surprisingly on the North of the proposed new road and infrastructure servicing corridor. Please correct imeadiatly. Thankyou for the opportunity to make comment,

Regards,

David Larcombe

QUEANBEYAN-PALERANG REGIONAL COUNCIL

Planning and Strategy Committee of the Whole Meeting Attachment

11 APRIL 2018

ITEM 4.3 QPRC ON-SITE SEWAGE MANAGEMENT (OSSM) POLICY

ATTACHMENT 1 DRAFT QPRC ON-SITE SEWAGE MANAGEMENT POLICY 2018

DRAFT

On-Site Sewage Management (OSSM) Policy

Date policy was adopted:	
Resolution number:	
Next Policy review date:	
Reference number:	

1. OUTCOMES:

This policy document outlines Council's commitment to domestic sewerage and wastewater management in unsewered areas and defines how the risks associated with the widespread use of On-Site Sewage Management Systems (OSSMs) are monitored and managed within the Queanbeyan-Palerang Regional Council (QPRC) Local Government Area (LGA).

2. POLICY:

Almost all of the QPRC LGA is part of a catchment supplying drinking water to Sydney, Canberra, Queanbeyan, and local towns such as Bungendore, Braidwood and Captains Flat.

Currently within the QPRC LGA there are approximately 5000 (OSSMs) in the former Palerang LGA and 700 in the former Queanbeyan LGA. The former Palerang has been coordinating a successful OSSM inspection program since 2006. It is suggested that QPRC follow this successful model, incorporate the best of the former Palerang model and improve the OSSM program for the new LGA.

The failure of OSSM systems has been known to contaminate water supplies and can be a source of serious environmental and public health concern. As a result, a series of objectives were developed by the NSW Office of Local Government to manage these concerns. These included:

- Prevention of public health risk;
- Protection of lands and community amenity;
- Protection of surface waters and groundwaters; and
- Conservation and reuse of resources.

2.1 Aims

The aims of the QPRC On-Site Sewage Management Policy are to:

- Guide property owners towards sustainable on-site management of domestic/business/commercial sewage and wastewater (excluding Liquid Trade Waste – see Palerang Council Liquid Trade Waste Policy for details);
- Protect and enhance the quality of public health and the environment in the long term within the QPRC LGA;
- Co-ordinate environmental assessment, data collection and monitoring which is related to On-Site Sewage Management;
- Assist Council to prioritize resources for the efficient regulation and monitoring of on-site sewage management systems within its area;
- To support water quality objectives in the drinking water catchments; and
- To ensure that all on-site sewage management systems in the QPRC area meet the various water catchment Authorities current recommended practices and standards.

2.2 Scope

This Policy applies to all fixed on-site sewage management systems in the QPRC Council area that are not directly connected to the public sewage system. This Policy applies to all land within the QPRC Local Government Area with the exception of National Parks as outlined in the Department of Local Government Circular 99/59. This policy, when adopted, will replace the existing Queanbeyan City

Council On-Site Sewage Management Plan and the Palerang Council On-site Sewage Management Policy.

2.3 Objectives

The objectives of this On-Site Sewage Management Policy are:

- Prevention of public health risk – sewage contains bacteria, viruses, parasites and other disease causing organisms. Contact with effluent must be minimised or eliminated, particularly for children. Residuals, such as composted material, must be handled carefully. Treated or untreated sewage must not be used on edible crops that are consumed raw. Unacceptable public health risks associated with the operation of any OSSM facility must not occur;
- Protection of surface waters – OSSM facilities must be selected, sited, designed, constructed, operated and maintained so that natural or artificial surface waters are not contaminated by any flow from sewage or wastewater treatment systems and/or land application areas;
- Protection of groundwaters – OSSM facilities must be selected, sited, designed, constructed, operated and maintained so that unacceptable risks of groundwater contamination do no occur;
- Protection of lands – OSSM facilities should not cause deterioration of land and vegetation quality through soil structure degradation, salinisation, waterlogging, chemical contamination or soil erosion;
- Prevention of animal health risk - OSSM facilities must be selected, designed, sited, constructed, operated and maintained so that they do not unreasonably interfere with quality of water intended for stock watering
- Protection of community amenity – OSSM facilities must be selected, designed, sited, constructed, operated and maintained so that they do not unreasonably interfere with quality of life, and, where possible, so that they add to the local amenity. Special consideration should be given to aesthetics, odour, dust, vectors and excessive noise;
- Conservation and reuse of resources – the resources in domestic wastewater (including nutrients, organic matter and water) should be identified and utilised as much as possible within the bounds posed by the other performance objectives. Water conservation should be practiced and wastewater production should be minimised; and
- Ecologically sustainable development – OSSM facilities should be selected, sited, designed, constructed, operated and maintained using, conserving and enhancing the community's resources so that ecological processes, on which life depends, are maintained, and the total quality of life, now and in the future can be increased.

2.4 Goals

- To maintain the database of all existing on-site sewage systems (known as the OSSM database) and ensure all new systems are captured in the database;
- To develop and implement a cost effective supervision program for on-site sewage management systems;
- To adopt a partnership approach with householders and service agents to support continual improvement of on-site systems;
- To provide education and information for operators of on-site sewage management systems
- To ensure that all onsite systems are inspected at regular intervals and are desludged and maintained as required;
- To ensure that all residents with Aerated Wastewater Treatment Systems consult with service agents and submit quarterly maintenance reports;
- To ensure that all land application areas comply with environment and health protection standards as well as Council operating requirements; and

- To review council development standards and approval criteria for subdivision, development and building to ensure that appropriate provision is made for on-site sewage management when residential development occurs in non-sewered areas.

3. DEFINITIONS

Absorption: uptake of liquid into soil.

Aerated wastewater treatment system (AWTS): a wastewater treatment process typically involving:

- Settling of solids and flotation of scum;
- Oxidation and consumption of organic matter through aeration;
- Clarification - secondary settling of solids; and
- Disinfection of wastewater before surface irrigation.

Aerobic: dissolved or free oxygen is present.

Anaerobic: dissolved or free oxygen is not present.

Anaerobic digestion: decomposition of sludge in the absence of free oxygen.

Best management practice: those approaches that have been developed to prevent or minimise water pollution at source, or as close to the source as practicable. They include those practices determined to be the most effective and practicable ways of preventing or reducing the amount of pollution generated by non-point sources to a level compatible with water quality goals.

Blackwater is defined as wastewater from a kitchen, toilet, urinal or bidet.

Desludging: withdrawing sludge, scum and liquid from a tank.

Disinfection: a process that destroys, inactivates or removes pathogenic microorganisms.

Domestic wastewater: wastewater arising from household activities, including wastewater from bathrooms, kitchens and laundries.

Evapotranspiration: removing water from soil by evaporation and from plants by transpiration.

Greywater: For the purposes of these guidelines, means wastewater from washing machines, laundry tubs, showers, hand basins and baths, but does not include wastewater from a kitchen, toilet, urinal or bidet.

Groundwater: all underground waters.

Human waste treatment device (HWTD): device for treating human excreta and other wastewater, including a septic tank, aerated wastewater treatment system, septic closet, water closet, humus closet and combustion closet (from the *Local Government Act 1993*).

Land application area: the area over which treated wastewater is applied.

Land application system: system that can consist of pumps, pipes, nozzles, or trenches designed to apply wastewater evenly over a land application area. Includes both irrigation systems and soil absorption systems.

Local authority: examples are:

- License regulators in metropolitan areas;
- Local councils in country NSW;
- Water boards established for specific locations.

Nutrients: chemical elements that are essential for sustained plant or animal growth; the major nutrients essential for plant growth are nitrogen, phosphorus and potassium. In excess, nitrogen and phosphorus are potentially serious pollutants encouraging nuisance growths of algae and aquatic plants in waters and (in the case of nitrate) posing a direct risk to human health.

On-site sewage is defined as both greywater and blackwater.

On-site sewage management systems (OSSMs)

The following wastewater treatment systems are all classed as on-site sewage management systems:

- Septic tank and absorption trenches;
- Septic tank and evapotranspiration areas;
- Aerated wastewater treatment systems (AWTS);
- Septic tank to pumpout;
- Dry composting toilets and greywater treatment systems;
- Wet composting toilets and subsurface application systems;
- Septic tank and constructed wetlands;
- Septic tank and soil mound systems; and
- Packaged Treatment Water Systems.

Reticulated water supply: the provision by a water authority of water for potable and non-potable uses to households through a network of pipes

Scum: material that collects at the top of primary wastewater treatment tanks, including oils, grease, soaps and plastics

Septic tank: wastewater treatment device that provides a preliminary form of treatment for wastewater, comprising sedimentation of settle-able solids, flotation of oils and fats, and anaerobic digestion of sludge

Sewage: waste matter that passes through sewers. Sewage includes any effluent of a kind referred to in paragraph (a) of the definition of waste in the *Local Government Act 1993*.

Sewage management: any activity carried out for the purpose of holding or processing, or reusing or otherwise disposing of, sewage or by-products of sewage.

Sludge: mainly organic semi-solid product produced by wastewater treatment processes

Soil absorption system: (includes leach drains, drain fields, absorption trenches, seepage beds and seepage pits) subsurface land application systems that rely on the capacity of the soil to accept and transmit the applied hydraulic load

Treated wastewater: (in these guidelines) wastewater that has received treatment via a human waste treatment device

Waterless composting toilet: (humus closet, biological toilet) waterless system that uses the principle of composting to break down human excreta to a humus-type material. The liquid fraction is evaporated or directed to an appropriate management system

Wet composting toilet: treats all household wastewater and putrescible household organic solid wastes such as food waste. Uses the principle of aerobic composting to break down the solid waste; the liquid component is directed to a land application system after passing through the pile of solids.

4. LEGISLATIVE OBLIGATIONS AND/OR RELEVANT STANDARDS

Legislation

This Policy is to be read in conjunction with the latest available editions or revisions of:

- The Local Government Act 1993;
- Local Government (General) Regulation 2005;
- Environmental Planning and Assessment Act 1979;
- Environmental Planning and Assessment Regulation 2000;
- Plumbing and Drainage Act 2011; and
- Protection of the Environment Operations Act 1997.

State legislation specifies that all on-site sewage management facilities in the Local Government area are required to be registered (by way of lodging an application for approval to operate the OSSM facility) with QPRC. This applies to both new and existing systems.

Standards Applying to On-site Sewage Management Systems

In implementing the On-site Sewage Management Policy Council will adhere to the following standards:

- All new human waste treatment devices shall be accredited by NSW Health Department;
- AS3500 National Plumbing and Drainage Code;
- AS1546 On-site Domestic Wastewater Treatment Units (part 1 applies to septic tanks);
- AS1547 On- site domestic wastewater management;
- AS4419 Soils for Landscaping and Garden Use;
- AS2698 Plastic Pipes and Fittings for Irrigation and Rural Applications;
- AS3000 Wiring Rules – Electrical Installation – Buildings, Structures and Premises;
- AS1319 Safety Signs for the Occupational Environment;
- Department of Local Government - Environment and Health Protection Guidelines: On-site sewage management for single households, (aka 'Silver Bullet') http://www.dlg.nsw.gov.au/DLG/Documents/information/onsite.pdf;
- Sydney Catchment Authority - Neutral or Beneficial Effect on Water Quality Assessment Guidelines http://www.sca.nsw.gov.au/publications/publications/136;
- Sydney Catchment Authority - Designing and Installing On-Site Wastewater Systems http://www.sca.nsw.gov.au/publications/publications/designing-and-installing-on-site-wastewater-systems;
- New South Wales Department of Energy, Utilities and Sustainability - NSW Guidelines for Greywater Reuse in Sewered, Single Household Residential Premises;
- NSW Health Advisory Note 3 – May 2006: Destruction, Removal or Reuse Of Septic Tanks, Collection Wells, Aerated Wastewater Treatment Systems and other Sewage Management Facility Vessels http://www.health.nsw.gov.au/environment/domesticwastewater/Documents/adnote3.pdf

5. OSSM Programs

Operational Programs

5.1 Maintenance of OSSM Database

Information provided to Council as part of the application to operate an On-site Sewage Management facility will form the basis of the information database. Information collected during the inspection will be included to provide a comprehensive record of each OSSM.

5.2 Education/ Promotion

It is important that owners of OSSM understand how their system operates and the possible consequences of a faulty or mismanaged system. Older houses with on-site systems may have been bought and sold a number of times and current owners may not even know where the system is located.

Council recognises its responsibility to provide appropriate information to owners. This will be through Council's inspection program which will include informal education of owners on site and distribution of information and fact sheets. Information will also be available on the Council website.

5.3 Inspection of OSSMs

Council officers will audit individual sewage management facilities having regard to the performance standards specified in AS/NZS 1547:2012 – On-site Domestic Wastewater Management and the Environment and Health Protection Guidelines for "On-Site Sewage Management for Single Households".

Information will be recorded about the location, type and condition of the system in operation and Council may direct the property owner to carry out rectification works on the system to achieve compliance with the relevant statutory requirements for on-site wastewater management. AS/NZS 1547:2000 provides the requirements for primary and secondary treatment units and associated land application systems. The Standard gives specific details for septic tanks for domestic wastewater, and for land application and absorption systems. Information regarding system selection and sizing, site and soil evaluations, and general management of on-site domestic wastewater systems (including operation and maintenance) is also covered in the Standard.

The circumstances in which Council will inspect an OSSM are as follows:

- Initial inspection of an existing OSSM;
- Re-inspection of an existing OSSM due to failure, modification or upgrade;
- Re-approval of an existing OSSM;
- Initial inspection of a new system; and
- Council becomes aware of a potentially failing OSSM.

5.4 Approval to Operate a System of Sewage Management

Under section 68 of the NSW Local Government Act 1993 approval is required to operate a system of sewage management. QPRC is the approval authority for on-site systems within the QPRC LGA. All wastewater (black and grey) is to be directed to the on-site sewage management system for treatment.

When a new OSSM is installed, usually associated with a development application for a dwelling, the approval to install and operate are managed by the development application process of Council. Ongoing operation approvals, are managed by the OSSM compliance function of Council, under section 68 activity approvals.

The general process for obtaining ongoing Approval to Operate an existing OSSM is:

- The operator (generally the landowner) must apply to Council for an approval to operate, or Council monitoring identifies a possible OSSM that has an expired approval and requires re-approval;
- Council sends a notice of entry letter specifying the inspection date;
- A council officer completes an assessment to determine whether the system is functioning according to relevant standards;
- An approval to operate with a set of conditions is sent to the landowner along with any other relevant information.

5.5 Installation of a New OSSM

Wastewater Site Assessment and System Selection
A Site and Soil Assessment Report (GEOTEC) report is required. The report will advise the most appropriate technology for the dwelling on the site.

The consultant will refer to the current version of AS/NZS 1547 Onsite Domestic Wastewater Management and the Department of Local Government's 'Silver Book' following the site assessment. This assessment must recommend a particular combination of a treatment system and land application method. This information must be provided in an on-site wastewater report and submitted as part of the development application.

Council will not approve of the installation of certain sewage management facilities unless they have been accredited by the NSW Ministry of Health. This choice of system must be made in accordance with NSW "Accredited Systems" on the NSW Health Website:
http://www.health.nsw.gov.au/environment/domesticwastewater/Pages/default.aspx

5.5.1 Development Application Requirements

5.5.1.1 On-site System of Sewage Management Report (Geotech Report)

All applications to install and alter an effluent disposal management system must be accompanied by a waste water report that includes the following information:

- **Waste Water Loading**
  For residential dwellings (including dual occupancies) design waste water loading based on the number of potential bedrooms (including rooms capable of being a bedroom) and type of water supply as follows.

- **Tank Water Supply**
  1-2 bedrooms 400L/day
  3 bedrooms 600L/day
  4 bedrooms 800L/day
  5 or more bedrooms 100L/day extra for each additional bedroom

- **Reticulated/bore supply**
  1-2 bedrooms 600L/day
  3 bedrooms 900L/day
  4 bedrooms 1200L/day
  5 or more bedrooms 150L/day extra for each additional bedroom

Note: For non-dwelling proposals the wastewater loading must be in accordance with AS/NZS1547:2000 - On-site domestic wastewater management.

5.5.1.2. Site Map

A site map which identifies all surface constraints including:

- The drainage network, water courses, drainage depressions and dams, roadside and other open drains;
- Vegetation and shading/exposure;
- Orientation;
- Any poor drainage/wet seepage areas and springs;
- River flats/floodplains or flood planning level;
- Any ground water bores located within 100m of the effluent management area and their use, Groundwater bores within 100m and if <100m then the site plan must be accompanied by a statement from the owner of the bore that it is not used for potable domestic water supply;
- Existing wastewater management structures and effluent management areas;
- Slope (%);
- General land form;
- Areas of runoff;
- Rock outcrops and geology;
- Stormwater management structures and erosion control measures;
- All existing and proposed structures including buildings, accessways or roads, livestock yards;
- Buffer distances;
- Exposed soil/erosion potential/fill;
- Any environmentally sensitive areas of, any land located within 100 metres of the sewage management facility or related effluent application areas; and
- Any building or facility located within 100m of the proposed effluent management system.

5.5.1.3. Soil information

Detailed soil information must include soil profiles of up to at least one metre (where possible) taken from the specific location of the proposed effluent management areas consistent with AS/NZS 1547:2000 On site domestic wastewater management. This information must describe:

- the soil texture and structure with depth as per AS/NZS 1547:2000;
- the dispersibility, and
- other relevant chemical or physical characteristics that could impact on sustainable effluent disposal as identified in the Silver Book or AS/NZS 1547:2000.

The information should also consider the following where relevant to the site:

- electrical conductivity/salinity (>8 dS/m is not suitable unless the soil is treated),
- sodicity (>10% is not suitable unless the soil is treated), and
- phosphorous sorption values for permeable sandy or granitic soils where effluent irrigation is
- proposed.

5.5.1.4. Climate Information

- Monthly rainfall and evaporation data.

5.5.1.5 Operation and Maintenance Requirements

The application must also be accompanied by details of:

- The operation and maintenance requirements for the proposed On-site Sewage Management System;

5.5.2 Existing systems

All existing OSSM are required to be registered and receive the relevant approval from Council. Clause 42 Local Government (General) Regulation 2005, provides the definition of "operating a system of sewage management". The definition includes all systems that result in the disposal of effluent on site, and systems that hold or process sewage that is subsequently discharged into a public sewer, such as pump out systems. Clause 44 Local Government (General) Regulation 2005, also outlines the performance standards which a system of sewage management must operate in accordance with, prior to the issue of an 'Approval to Operate'. Operating an OSSM does not include any use of sewage or sewage by-products after their discharge into a public sewer (Clause 42 3b).

5.5.2.1 Applications to alter an existing system

An application is made to Council using the QPRC, section 68, "Carry Out Water, Sewage and Stormwater Work" Form to alter an existing system. An alteration may be applied for due to an increase in the number of bedrooms associated with the dwelling on the property, an environmental issue arising from the existing system or other reasons such as age, efficiency, energy use considerations or landholder preference. Depending on the circumstances additional information may be required to the same level as required for a new application, for e.g. Council may require a Site and Soil Assessment Report (GEOTEC) by an accredited consultant including an assessment consistent with the Sydney Catchment Authorities "Neutral or beneficial effect on water quality assessment guidelines".

QPRC urges property owners to contact Council staff to discuss individual cases as requirements for information may differ, particularly if the existing system does not meet the current buffer guidelines.

5.5.3 Installation

The On-site Sewage Management System to be installed or constructed must be accredited by the NSW Department of Health the proposed operation, maintenance and servicing arrangements intended to meet those requirements and the actions to be taken in the event of a breakdown in, or other interference with its operation. Council shall not approve a system that does not have a current accreditation from the Director-General of the NSW Department of Health.

All systems should be installed according to NSW Workplace Safety requirements and AS/NZS 3500 (Set):2003 Plumbing and Drainage Set.

5.5.4 Renewal of on-site wastewater approvals

All On-Site Sewage Management Systems currently require approval in accordance with *s68 Local Government Act 1993*. Each site is to be assessed by the determining assessing officer and appropriate conditions of approval imposed. Fees associated with this approval process are outlined in Councils Fees and Charges Policy.

Aerated systems (AWTS) shall continue to have quarterly services from an appropriately qualified service contractor with all reports and documentation held together on site and copies submitted to Council.

Approvals to operate an OSSM under Section 68 of the Local Government Act are only issued for a specified period of time (2 years or 5 years depending on their individual risk assessment) and must be renewed before expiry. To ensure that OSSMs comply with legal requirements, all OSSMs need to have a current approval to operate. After installation, all OSSMs are require to be maintained in accordance with Section 5 of the Silver Book and AS/NZS 1547:2000

Note: Greywater reuse will require a separate approval.

5.5.5 Effluent irrigation

Subsurface irrigation will be required if the:

- Average annual rainfall exceeds 1200mm,
- Neighbouring dwellings are within 100m of the proposed effluent management area,
- Effluent management area slope is greater than 7%,
- On-site Sewage Management System is to be located within an unsewered residential area.

- The effluent irrigation area needs to be regularly mowed to maintain a maximum height of 100mm to remove nutrients for long term sustainability.

Where surface irrigation is proposed, moveable hoses, including semi fixed systems will not be acceptable

5.5.6 Unacceptable practices

The following systems will not be acceptable:

- Trench system longer than 200m;
- Absorption systems where soil is medium or heavy clay;
- Absorption systems where there is less than 0.75m of soil;
- Trenches more than 20m long except where they are made of 2 separate inline trenches with a central feeder or where trenches are pressure dosed from a pump well;
- Amended soil mounds with slopes of more than 7%;
- Solar powered systems where continuous power is required for normal operation such as aerated wastewater treatment systems;
- Reed bed systems except in exceptional circumstances;
- Pump out systems for domestic use.

5.5.7 Renewal of on-site wastewater approvals

All On-Site Sewage Management Systems currently require approval in accordance with *s68 Local Government Act 1993*. Each site is to be assessed by the determining assessing officer and appropriate conditions of approval imposed. Fees associated with this approval process are outlined in Councils Fees and Charges Policy.

Approvals to operate an OSSM are only issued for a specified period of time (2years or 5 years depending on their individual risk assessment)) and must be renewed before expiry. To ensure that OSSMs comply with legal requirements, all OSSMs need to have a current approval to operate. After installation, all OSSMs are require to be maintained in accordance with Section 5 of the Silver Book and AS/NZS 1547:2000

Council shall not approve a system that does not have a current accreditation from the Director-General of the NSW Department of Health.

Aerated systems (AWTS) shall continue to have quarterly services from an appropriately qualified service contractor with all reports and documentation held together on site and copies submitted to Council.

Note: Greywater reuse will require a separate approval.

5.5.8 Aerated Water Treatment Systems (AWTS) quarterly reports

All Aerated Water Treatment Systems are required to have quarterly services from an appropriately qualified service contractor with all reports and documentation held together on site and copies submitted to Council. These can be posted, emailed or faxed, with clearly marked addresses, property number and OSSM number provided to you by Council in documentation related to your system.

5.5.9 Minimum Standards for AWTS

AWTS Systems are required to be serviced and maintained in accordance with the conditions of their NSW Health Certificate of Accreditation. At a minimum service agents should check all mechanical components of the system, check the irrigation/disposal area and test effluent qualities for parameters such as pH, dissolved oxygen and free residual chlorine.

5.5.10 Existing Pit Toilets

Pit toilets (or cess pits, long drops) have historically been used as a low cost form of sewage disposal, particularly in remote areas. However, they pose a potential to contaminate groundwater and surface waters and are not considered appropriate.

New pit toilets applications will not be accepted in QPRC area. Pit toilets have a high potential to contaminate groundwater, allow breeding of insects which potentially carry disease and create unpleasant odours.

At end of life existing pit toilets are to be decommissioned. When they are nearly full they must be filled up with soil. Contents of the well must not be broadcast or discharged above ground. If a pit is to be decommissioned, the property owner is required to notify Council in writing including the proposed date of decommissioning.

An alternate approved system must be provided. For short term weekender cottages with low usage, it is suggested a dry or wet composting toilet would be more suitable. Any new system must be accredited with NSW Health and approved by Council.

5.6 Fees and Charges:

Council has adopted the proposal to include ongoing On-site Sewage Management System fees as a rates charge (outlined in QPRC's current Fee's and Charges Schedule) which is split over the life of the approval. The fees which are charged are updated annually in accordance with QPRC's Annual Fees and Charges Policy.

5.6.1 Performance Standards

The Council must prescribe performance standards when determining applications for approvals to install or operate on-site sewage management facilities. Minimum performance standards are specified by the Division of Local Government under s44 Local Government (General) Regulation 2005, the Council cannot approve any application that will not comply with relevant Regulations. These minimum performance standards are listed below.

An on-site sewage management system must be designed, installed and operated to ensure that the following environmental and health performance objectives will continue to be met over the long term:

- The prevention of the spread of disease by micro-organisms;
- The prevention of the spread of foul odours;
- The prevention of the contamination of water;
- The prevention of the degradation of soil and vegetation;
- The discouragement of insects and vermin;
- Ensuring that persons do not come into contact with untreated sewage or effluent in their ordinary activities on the premises concerned;
- The minimisation of adverse impacts on the amenity of the premises and surrounding lands;
- If appropriate, provision for the reuse of resources including nutrients, organic matter, and water.

5.6.2 Risk Classification System:

New sites shall be given a risk rating at the time of approval and existing sites at the time of the first inspection. The risk rating (known as the OSSM Risk Assessment Matrix) shall determine the frequency of inspections which are:

- **High** – inspected every two years;
- **Medium** – inspected every five years.

The risk rating is determined on the potential of the system's impact using the following criteria:

- Impact on public health;
- Impact on water quality;
- Impact on community amenity;
- Impact on soils.
- Impact on stock health

In determining the risk classification, and subsequently the approval period for each sewage management facility, Council has taken into consideration the following factors:

- Distance from nearest body of water (vicinity of system to rivers, creeks, drainage depressions and dams increase the risk of contamination in the event of failure);
- Area of land (ie residential blocks are higher risk sites than rural properties);
- Soil type (affects moisture absorption ability);
- Distance to downhill boundaries (affects potential for off-site impacts);
- Number of bedrooms/occupants of premises (affects potential load on the system and risk of failure);
- Landfall/slope (affects potential spread of contaminated water);
- Level of groundwater/nearest bore (potential to contaminate groundwater);
- Arrangements for stormwater diversion (whether a diversion bank/drain is installed and the likelihood of stormwater entering the system area);
- Type of system proposed/in use (affects potential for a contamination event);
- Proximity to human activity (closer increases the contamination risk).

Note: See attached OSSM Risk Assessment Matrix

The inspecting officer can provide advice whether the risk level of a system can be reduced through minor improvements, such as the installation of a diversion bank upslope of the tank and effluent disposal areas to prevent overland flow from increasing the soil saturation of these areas. Alternatively, a different system can need to be installed to reduce the risk level.

The risk classification may be reviewed periodically and an OSSM may be reclassified. In the event that a system is reclassified, the approval period and associated fees and charges will be updated and reflected in the Rates Notice for that property in the following financial year.

5.6.3 Buffer Distances

It is necessary, when installing on-site disposal systems, to ensure that sufficient viable land is left for activities where human contact with land application areas are minimised, for example clothes drying and recreation within the yard of each premises.

Associated with this are buffer zones around the disposal field to minimise impacts on the surrounding environment and to reduce the potential for human contact with wastewater.

The standard buffer zones under the guidelines for all systems are:

Table 1. Buffer Distances

System	Minimum buffer distances
Treatment/Storage Tanks	• 6 metres if tanks are upgradient and 3 metres if tanks are downgradient of below ground potable water tanks • 3 metres from land application system • 1.5 metres from dwelling
All land application systems	• 100 metres to permanent surface waters (river, stream, lake etc) • 100 metres to domestic groundwater well or bore • 40 metres to other waters (farm dams, intermittent waterways and drainage channels) • Located outside of the dripline of any tree as determined by Council as being required to be retained by a tree plan
Surface spray irrigation	• 6 metres if area upgradient and 3 metres if area downgradient of driveways and property boundaries • 15 metres to dwellings • 3 metres to paths and walkways • 6 metres to swimming pools
Surface drip and trickle irrigation	• 6 metres if area upgradient and 3 metres if area downgradient of swimming pools, property boundaries, driveways and buildings
Subsurface irrigation	• 6 metres if area upgradient and 3 metres if area downgradient of swimming pools, property boundaries, driveways and buildings
Absorption system	• 12 metres if area upgradient and 6 metres if area downgradient of property boundary • 6 metres if area upgradient and 3 metres if area downgradient of swimming pools, driveways and buildings

5.7 Compliance Enforcement

Adequate powers exist under the provisions of the *Local Government Act 1993*, to ensure compliance with this policy, to require OSSM owners to obtain approval to operate, and to require maintenance of systems to an acceptable standard.

5.7.1 Power of Entry of Authorised Officers

Section 191 of the Local Government Act 1993 allows Authorised Officers of Council to enter premises for the purposes of enabling Council to exercise its functions. These functions include issuing approvals to operate OSSMs in accordance with Section 68 of the Act.

Section 192 of the Local Government Act 1993 describes what Councils can do whilst undertaking inspections. In relation to OSSM inspections, Council Authorised Officers are able to:

(a) inspect the premises and any food, vehicle, article, matter or thing on the premises, and
(b) for the purpose of an inspection:
    - open any ground and remove any flooring and take such measures as may be necessary to ascertain the character and condition of the premises and of any pipe, sewer, drain, wire or fitting, and

- require the opening, cutting into or pulling down of any work if the person authorised has reason to believe or suspect that anything on the premises has been done in contravention of this Act or the regulations, and
- take measurements, make surveys and take levels and, for those purposes, dig trenches, break up the soil and set up any posts, stakes or marks, and
- require any person at those premises to answer questions or otherwise furnish information in relation to the matter the subject of the inspection or investigation, and
- examine and test any meter, and
- measure a supply of water, and
- take samples or photographs in connection with any inspection.

5.7.2 Notice of Entry Documentation

Council are required by Section 193 of the Local Government Act 1993, to give written notice of their intention to enter premises for the purpose of conducting an inspection. Property owners will be notified in writing a minimum of 14 days prior to the scheduled date for the inspection.

Property owners are able to be present for the inspection, but are not required to be. The inspector does not require access to any residential buildings on the property. Property owners are to ensure that gates are not locked on the inspection date or gate keys are made available and animals that may pose a risk to visitors are restrained, otherwise arrangements for access are to be previously arranged.

5.7.3 Provision of Access:

In most cases property owners allow Council staff to enter their properties for the purposes of conducting an OSSM inspection. However, in some cases property owners repeatedly deny access by locking gates. If a property is not able to be accessed on the scheduled inspection date and other arrangements have not been made, Council will issue a letter requiring urgent contact within 14 days.

If no contact is made, Council may use its power under Section 194 of the Act to enter the property by force. This will be by cutting chains to allow access and relocking the gate with a split link.

5.7.4 Inspection Procedure

During the inspection Council Officers will locate the OSSM on the property either by previously recorded GPS coordinates or visually locating the system. Council officers will examine all aspects of the OSSM including the tank/s, associated pipework and land disposal area.

The OSSM will be given a risk rating at the time of approval as described in *section 9. Risk Classification System* of this Policy.

In addition to risk rating, the OSSM performance will be checked to ensure compliance with Public Health and Environmental Standards. Systems which are performing in compliance with the standards will be issued with an approval to operate in accordance with their assessed risk rating.

Systems which fail to meet performance standards will require repair, upgrade, or in the case of serious failure, complete replacement.

5.7.5 Council officers cannot locate system

If during the inspection a Council Officer cannot locate the system on the property, the property owner will be notified in writing and asked to provide location details for the system and the land application area within 30 days from the date on the letter. A date will be rescheduled with the property owner at time of contact.

5.7.6 Failing Systems

OSSM systems that are failing to meet the public health and environmental standards required by the Local Government Act and Australian Standard 1547-2012 pose significant risks to both public and environmental health. Council has legislative obligations which require action to be taken to prevent public health and environmental risks by ensuring that failing OSSM systems are repaired in a timely manner.

5.7.7 Initial Notification of Failure

Property owners with systems that are failing to meet the conditions for a reissue of approval and/or performance requirements will be notified in writing of the failure. This letter will include reasons for the failure. Property owners will be required to consult a licenced plumber for advice on the system and possible rectification options and then, to notify Council in writing of proposed works prior to any work commencing on the system and within 30 days of the date on the letter (this is not applicable when emergency repairs to the system are required – refer to 5.83 *Emergency Orders*)

The type of works proposed to be undertaken may require further approval from Council. This generally applies when a full replacement of the system or disposal area is required. In this case, property owners will be required to lodge an application under Section 68 of the Local Government Act 1993 and provide supporting information including a site plan, geotechnical assessment report and accreditation details of the new system components (refer to *section* 5.5 Installation of a new OSSM).

5.7.8 Decommissioning an OSSM

Septic tanks contain untreated wastewater which if abandoned and incorrectly decommissioned, can leak contaminants into the soil and groundwater. This can include bacteria, viruses, parasites and nitrates which can cause diseases or other health or environmental problems. This has the potential to contaminate the soil and groundwater and pollute local watercourses.

Septic tanks that have not been correctly decommissioned may also pose a safety hazard. There have been serious injuries and even deaths caused by a fall into an abandoned septic tank when the lid collapsed.

A septic tank may need to be decommissioned under the following circumstances:

- If the tank is irreparable and requires replacement
- If Council requires the Septic to be decommissioned
- There may be other reasons triggered by development application assessment or change of land use.

If a septic tank is to be decommissioned, the property owner is required to notify Council in writing including the proposed date and the reason why the tank is being decommissioned. This must then be carried out adhering to the following Advisory Note: NSW Health Advisory Note 3 – May 2006: Destruction, Removal or Reuse Of Septic Tanks, Collection Wells, Aerated Wastewater Treatment Systems and other Sewage Management Facility Vessels
http://www.health.nsw.gov.au/environment/domesticwastewater/Documents/adnote3.pdf

5.7.9 Reinspections

Council will reinspect failing systems 90 days after the date of the initial failure letter. Systems which have been rectified and are assessed as meeting appropriate performance standards will then be risk rated and an Approval to Operate will be issued in accordance with this rating.

A reinspection of an OSSM will incur a reinspection fee as per Councils Fees and Charges Policy. Systems which fail to meet performance standards at the reinspection will be issued with a Notice of Proposed Order under the Local Government Act 1993. This notice triggers a legislative process in which Council can assure that required works are carried out. This process will also result in increased costs to property owners as Penalty Infringement Notices may be issued for non-compliance with an order.

6.0 Orders

Where discussions with property owners fail to ensure that repairs are undertaken to rectify failing OSSM Systems, Council has a number of Options under Section 124 of the *Local Government Act* to order property owners to comply with requirements. Council can issue the following orders that:

- Require action to be taken to bring a sewerage system into compliance with relevant standards or requirements (Order No. 5)
- Require owners or operators to do or refrain from doing such things to prevent environmental damage or repair environmental damage (Order No. 11)
- Require an activity on a premises (such as operating an OSSM) where the activity is or may constitute a threat to public health or safety to cease (Order No. 15)
- Require action to maintain a premises in a healthy condition (Order No. 21)
- Control waste on premises where the waste is not being dealt with satisfactorily (Order No. 22)
- Require the connection to a public sewer where the sewer is within 75 metres and available for connection (Order No. 24)
- Require owner or operators to use or not to use a human waste storage facility (Order No. 25)
- Require compliance with an approval (Order No. 30)

Note: Orders may also be issued under Protection of the Environment Operations Act 1997

6.1 Notice of Intention to Serve Order

Before issuing an Order under Section 124 of the Local Government Act, Council is required to comply with the order process as set out below:
Section 132 of the Act states:

> *"Before giving an order, a council must give notice to the person to whom the order is proposed to be given of its intention to give the order, the terms of the proposed order and the period proposed to be specified as the period within which the order is to be complied with.*
> *The council's notice must also indicate that the person to whom the order is proposed to be given may make representations to the council as to why the order should not be given or as to the terms of or period for compliance with the order."*

In accordance with this section of the Act, property owners will be given 21 days to respond to the notice of proposed order. In this response owners should include details of the efforts they have made to

comply with requirements and circumstances that are preventing compliance. Council will consider the response prior to issuing the Order.

6.1.1 Consequences of an Order

An Order under Section 124 of the Act requires property owners to undertake specified works within a specified timeframe. Failure to comply with an Order is an offence under Section 628 of the Act. Penalty Infringement Notices for failure to comply with an Order will be issued.

6.2 Emergency Orders

Where an OSSM system is posing a significant immediate risk to public health and the environment, Council can issue an Emergency Order under Section 124 of the *Local Government Act* to undertake specified works within a specified timeframe.

7.0 Evaluation, Continuing Improvement and Review of the System

Council will maintain an on-going evaluation of the OSSM Program and Policy. Results of the assessment, monitoring and evaluation may be included in Council's State of the Environment Report.
QPRC makes a commitment to the continuing improvement in the regulation and operation of on-site sewage management systems. Council undertakes to regularly review this Policy to ensure that it reflects the needs and concerns of Council's residents as well as meeting the changes to the legislation and standards.

This Policy and all relevant information regarding On-Site sewage management will be made available on the QPRC website and at Council offices.

7.1 Performance Indicators

The following indicator is to serve as a measure of the effectiveness of the policy and any supporting procedures and will be built into Management Plan reporting processes.

- No of inspections undertaken p.a.

REFERENCES

- Designing and Installing On-Site Wastewater Systems: A Sydney Catchment Authority Current Recommended Practice (2014). This publication can be found on the Water NSW website: www.sca.nsw.gov.au/publications/publications/designing-and-installing-on-site-wastewater-systems
- AS/NZS 1547 and the 'Environment & Health Protection Guidelines: On-site Sewage Management for Single Households' (the 'Silver Book', Department of Local Government,1998) which are both current recommended practice for on-site wastewater management.

Supporting Documents

- On-site Sewage Management Inspection Report
- OSSM Risk Assessment Matrix
- OSSM Procedure Flowchart

POLICY:-	
Policy No:	
Policy Title:	
Date Policy was adopted by Council:	
Resolution Number:	
Previous Policy Review Date:	
Next Policy Review Date:	
PROCEDURES/GUIDELINES:-	
Date Procedure/Guideline (if any) was developed:	
RECORDS:-	
Container Reference in TRIM: Policy	
Container Reference in TRIM: Procedure	
Other locations of Policy:	Intranet (linked to TRIM Container)
Other locations of Procedures/Guidelines:	Intranet (linked to TRIM Container)
DELEGATION (if any):-	
RESPONSIBILITY:-	
Draft Policy developed by:	
Committees (if any) consulted in the development of the Draft Policy:	
Responsibility for Implementation:	
Responsibility for Review of Policy:	

INTEGRATED PLANNING FRAMEWORK:	
Community Strategic Plan:	Theme No.
Delivery Program Title:	
Operational Plan:	

Senior Authorising Officer	**Position** General Manager	**Signature/Date** (Signed and dated)

ACTION	COUNCIL MEETING DATE	RESOLUTION NUMBER	REPORT ITEM NUMBER
NEW/RECONFIRMED/ AMENDED			

DATE REVIEWED	REVIEWER POSITION	REVIEWER NAME