

Logan South WWTP B

Responses to community questions – as at 10 July 2019

This document presents Council's responses to recent community questions about the Logan South Wastewater Treatment Plant B (WWTP B) project. Responses are based on best available, current information.

SITE SELECTION PROCESS

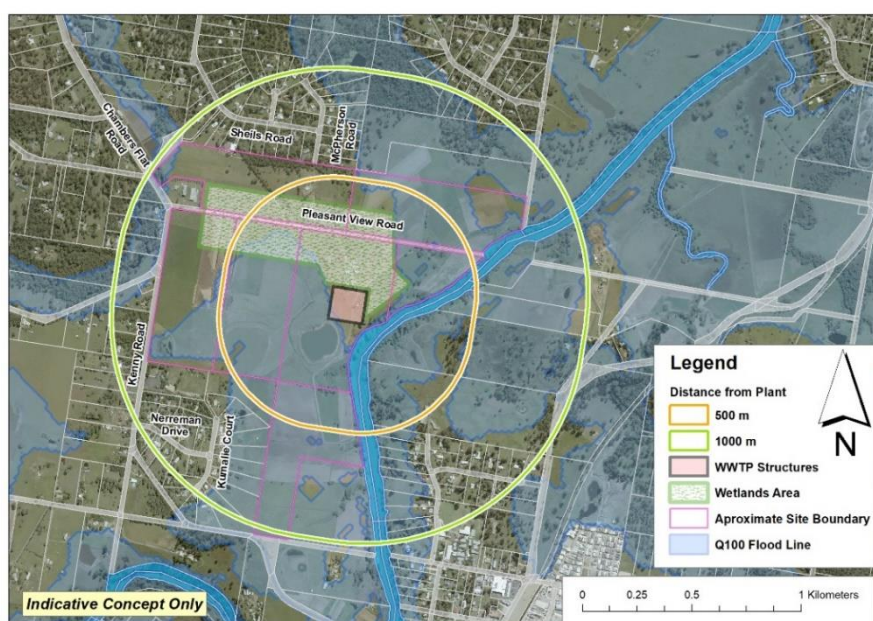
1. Is Council's decision of 16 April 2019 regarding the location of Logan South WWTP B valid as Councillors have been dismissed?

Yes. The decision was legally made and remains valid. The Interim Administrator, Tamara O'Shea, has advised that as the Council was lawfully constituted at the time of the decision, unless there is evidence of misconduct in relation to this process, Ms O'Shea does not see any grounds on which to review this decision. If residents wish to lodge a formal complaint in relation to the process or if they have any evidence of misconduct or corruption in relation to the decision-making in this matter, concerns can be submitted to the following bodies who conduct such investigations:

- The Office of the Independent Assessor (<https://oia.qld.gov.au/office-of-the-independent-assessor/make-a-complaint.html>)
- The Crime and Corruption Commission (<http://www.ccc.qld.gov.au/corruption/report-corruption>)
- The Queensland Ombudsman (<https://www.ombudsman.qld.gov.au>)

2. Where will the WWTP be located?

The site comprises several parcels of land on Pleasant View Road at Chambers Flat. The exact size of the land to be purchased is to be determined but it is expected to be approximately 140 hectares. The WWTP structures and possible treatment wetlands would be located above the Q100 flood line as shown in the indicative concept plan below. Note that the size of the WWTP structures and wetlands on the plan is indicative of the ultimate area required (in years to come as the population in the catchment grows). The plan is not intended to represent the design of the plant.



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3. Why was this site chosen above others?

The selected site was considered the most suitable due to the availability of flood free land, the relatively low impact on the community and environment compared with other sites assessed and the proximity to the Logan River.

4. What were the selection criteria and weightings used for selecting the site?

Twenty-four sites were considered including those identified in previous planning work, sites offered to Council for sale during the initial (2018) community consultation period, and some sites for sale commercially. Following an initial screening process, 19 sites were found to be unsuitable due to the lack of available flood free land for the WWTP or insufficient buffer between the WWTP and residents, land topography issues, land use compatibility issues, or the number of residential properties nearby.

Five potentially feasible sites were considered in more detail, and then assessed against social, environmental and cost criteria. Feedback from the initial community consultation period was used to develop selection criteria for comparing sites. Social criteria were weighted at 40% compared with environmental criteria at 30% and cost criteria at 30%. The criteria used are shown in the table below.

	Assessment Criteria	
	Weighted Scores	Weighting
Community 40%	Direct impact on residents / property owners - property acquisitions, noise, odour, lighting and traffic	15%
	Wider impact on community – rural lifestyles, agriculture, land values, business opportunities	15%
	Proximity to areas to be serviced	10%
Environmental 30%	Sensitive/protected species clearing (flora & fauna)	10%
	Impact on waterways	10%
	Construction impacts, including cultural heritage and others	10%
Cost 30%	Net present value of infrastructure	30%
	Total	100%

5. Why aren't developers made to incorporate wastewater treatment facilities into their developments?

If individual developers were required to provide wastewater treatment facilities to service specific developments, the result would be dozens of treatment facilities of different types and sizes scattered across Logan. Council would be required to operate and maintain these facilities for many years. The impacts of this situation would be:

- high operating and maintenance costs, which would have to be passed onto Logan residents through wastewater service charges
- location of treatment facilities in urban areas / near many residents which may result in noise, odour, lighting and traffic impacts on residents

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- an inability to discharge highly treated water to waterways or land, possibly resulting in the need to tanker wastewater off site to a centralised treatment location, resulting in frequent truck movements in residential areas.

Municipal treatment facilities which service larger areas are more cost-effective to operate, ultimately reducing charges to residents. This approach is applied in modern cities across the world.

6. As Council has the power to resume land, why can't it resume part of Yarrabilba for this WWTP?

As Yarrabilba is a State Government declared Priority Development Area (managed by Economic Development Queensland) Council has no jurisdiction to resume land within Yarrabilba for wastewater treatment purposes.

Council's wastewater servicing strategy for Logan's southern growth areas (including Park Ridge, Logan Village, Yarrabilba and Greater Flagstone) is for two regional treatment plants - one in Cedar Grove now under construction, and the second at the recently selected site in Chambers Flat. Placing a treatment plant at Yarrabilba in an urban environment (small lots) would result in significant impacts on many surrounding residents.

7. What about the relatively undeveloped areas within the Yarrabilba Priority Development Area, or south of Yarrabilba? Wouldn't they be a better place for this WWTP?

The decision on the site for Logan South WWTP B was made on the basis of combined technical, environmental, financial and social criteria. Options to locate a WWTP in the southern part of, or south of, the Yarrabilba Priority Development Area were considered. However, construction of a network of trunk wastewater pipelines from the development areas in Park Ridge and Logan Village to these locations incurred cost penalties (lower scores) compared with other potential sites which were more central to all the areas to be serviced.

8. Isn't the cost of constructing a trunk wastewater pipeline from Park Ridge to Yarrabilba about the same as constructing two pipelines from Yarrabilba to Chambers Flat and Park Ridge to Chambers Flat? This would avoid resuming land in Chambers Flat.

Development in Park Ridge will ultimately contribute about 55% of the total wastewater to be processed at Logan South WWTP B. Due to the topography of the area, and the fact that Park Ridge will contribute the majority of the wastewater flows, wastewater conveyance costs are lower for a centrally located treatment plant. The further away from Park Ridge the plant is located, the higher the costs.

A number of sites were assessed in the vicinity of Yarrabilba. However, all of these locations were considered to have a greater community impact than the selected site and higher costs associated with the wastewater pipeline and pump station infrastructure. Some sites also would have had a significant environmental impact due to the need for clearing of remnant (environmentally significant) vegetation.

9. I thought Chambers Flat was a 'green zone' and development was not allowed?

The zoning of the land where the Logan South WWTP B site is to be located is 'rural' under the Logan Planning Scheme (the beige colour in the map below, left). Council's development of a public utility in a rural zone does not require a development application under the Planning Scheme.

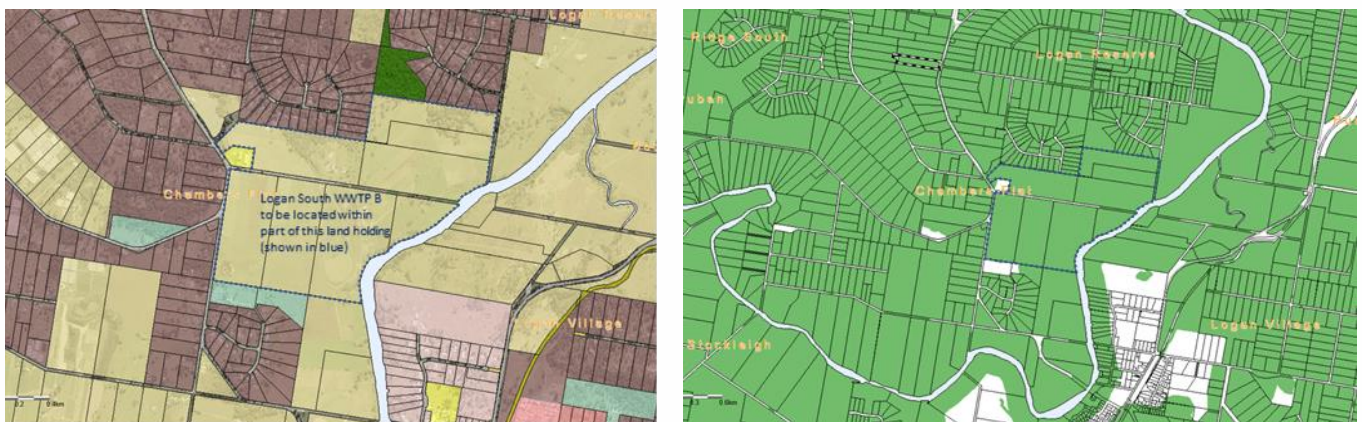
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The 'green zone' referred to by some community members is a Planning Scheme overlay code for 'Biodiversity areas trigger'. This overlay applies to most of Chambers Flat and surrounding areas. Refer to the map below, right. A requirement of this code is for development to be designed and located to: (a) provide for habitat links; (b) facilitate safe wildlife movement; (c) enhance habitat values; and (e) rehabilitate degraded areas with native vegetation.

The biodiversity areas overlay code does not apply to the Logan South WWTP B project. Nevertheless, Council will prepare an Ecological Assessment Report for the project, which addresses the above, and other, environmental matters.

You can view Logan's [planning scheme](#) on Council's website.



10. Why has Council selected a working farm for this WWTP?

Council acknowledges that there was not a suitable site for the treatment plant that affected no one.

Several of the sites assessed incorporated businesses, including farms. Council regrets the impact on a local farm for the purposes of establishing a wastewater treatment plant, but it is obliged to provide wastewater management services for the growing community in Logan. The selected site was assessed objectively and, of all sites considered, it had the lowest community impact.

11. What community engagement and consultation were conducted before Council selected the site?

Community engagement and consultation began in July 2018. An initial consultation period commenced with an addressed letter to almost 10,000 property owners and residents between Park Ridge and Yarrabilba (posted to all addresses in the area on Council's rates database) seeking feedback on issues Council should consider when selecting a WWTP site.

An online 'Have your Say' site provided opportunities for local people to view project information and provide feedback on the project. Community information events were held at the Chambers Flat Strawberry Farm, on Stockleigh Road and at Logan Village Shopping Centre and there were numerous articles in the Jimboomba Times and Albert and Logan News, and posts on local social media sites. Outcomes of the initial community consultation phase were presented to Council and made available to community members.

Council then conducted a siting study to assess 24 potential WWTP sites, with community feedback used to develop selection criteria for comparing sites. Two preferred sites were identified in late 2018.

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Council conducted consultation with property owners whose land was directly affected by the two preferred sites. These property owners were either affected by development of the WWTP itself or within the buffer zone around the WWTP. Council's discussions with property owners affected by the two preferred sites were confidential and in line with the requirements of the *Privacy Act*. This was because some owners had offered their properties to Council for sale during the earlier consultation period, while other neighbours did not wish to sell. All owners also participated in a confidential independent property valuation process.

Council's hand delivered letter to all Chambers Flat properties on 3 May 2019 announced Council's selection of the Pleasant View Road site as its final preferred location for the WWTP.

FLOODING ISSUES

12. Will this facility contribute to localised flooding?

The volume of highly treated wastewater from this facility will be low compared with flood volumes, and the output is unlikely to impact overall flood levels. Based on the Cedar Grove WWTP requirements, the Queensland Department of Environment and Science (DES) may require an assessment of the impact of WWTP flows on receiving waters during flood and non-flood events prior to issuing an Environmental Authority (license). The Cedar Grove WWTP is designed to receive about six times normal dry weather flows to ensure that no release of untreated flows occurs during extreme wet weather events.

13. If wetlands are built on the site, will they contribute to pollution during wet weather?

Wetlands are used to polish treated wastewater to achieve very low nutrient levels and do not contribute to pollution during wet weather events. During the planning of Logan South WWTP B, the environmental regulator (DES) will be consulted about compliance requirements for operating the WWTP. This will determine treatment standards and nutrient management options, including any nutrient offset requirements.

If used, wetlands would be constructed above the Q100 flood line and designed to contain flows during extreme wet weather events. They would be bunded to prevent entry of overland stormwater flows into the wetlands, and be of a size to contain severe storm rain directly falling into the wetlands.

14. We currently use part of the site (with agreement from the current property owner) to access the land in time of flood to exit / enter our property. Can we still do this?

Council would be happy to discuss this further with affected residents to identify access requirements in times of flood, and provide for this in the WWTP site masterplan as appropriate.

SERVICING OF EXISTING PROPERTIES

15. Will residents who have their own wastewater treatment systems / septic systems have to connect to this new facility?

Council has no current plans for the new Logan South WWTP B to service existing rural-residential properties. Should current owners wish to develop their land to an urban configuration in future (within the framework of the Logan Planning Scheme), any future wastewater servicing potential will be assessed at that time.

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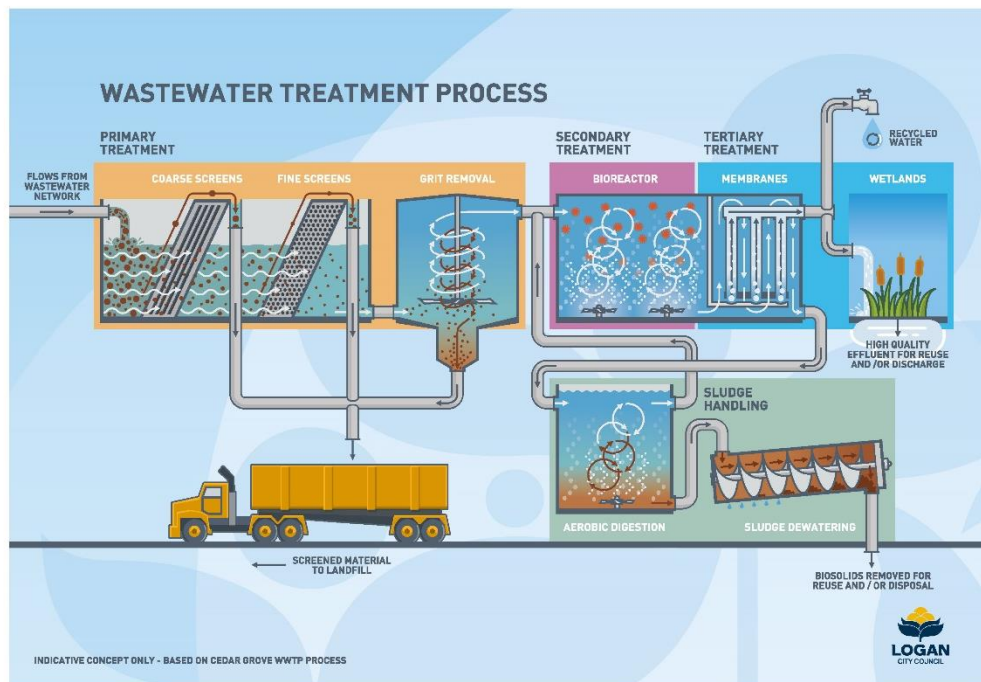
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TECHNICAL ISSUES

16. What is the treatment technology to be used at Logan South WWTP B?

The project is in the planning phase and there is no concept design as yet. However, as a modern wastewater treatment plant, Logan South WWTP B may use membrane bioreactor (MBR) technology. MBRs consist of fine screening, denitrification and nitrification zones, biological and chemical phosphorous removal, which is then followed by membrane treatment and disinfection. MBR technology provides optimal outcomes for residents and the environment in terms of the quality of the treated water, odour controls, operability, maintenance and costs.

Effluent leaving the plant could be further treated in constructed wetlands, or stored and reused for agricultural or other approved purposes on or off site. If used, the wetlands would 'polish' the treated water to achieve ultra-low nutrient levels (of nitrogen and phosphorus). Below is a high level schematic sketch of the treatment process.



17. How much treated wastewater (effluent) will come out of the facility?

The volume of effluent produced by the plant would change over time, depending on population growth in the area serviced by the plant. Based on early planning estimates, when the first stage of the plant begins operation (sometime after 2021 – yet to be confirmed) the volume of effluent from about 14,000 people during dry weather would be about 2.3 megalitres per day. Once the plant is servicing 44,000 people it would be about 7.3 megalitres per day in dry weather, and then at ultimate capacity of about 154,000 people it would be about 25 megalitres per day in dry weather. These volumes would increase during wet weather.

For comparison, the Loganholme WWTP currently produces around 44 megalitres per day in dry weather.

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18. What will be in the effluent and where will it go?

As this project is in the early planning stages, Council does not yet have advice from the Queensland Department of Environment and Science on the likely environmental license requirements for Logan South WWTP B. However, we expect that they will be similar to those applied to Council's Cedar Grove WWTP which are the strictest in Queensland. Under this type of license, during normal WWTP operations the plant will produce high quality treated wastewater (Class A quality effluent) which meets tightly controlled levels of at least 11 water quality characteristics before effluent is discharged to the Logan River. The license also requires Council to provide the capacity to fully treat about six times the design Average Dry Weather Flows of wastewater coming from the catchment.

In the unlikely event that these flows are exceeded (ie in a catastrophic flood event for the city) the licence for Cedar Grove WWTP states that flows must discharge through the wetlands after being screened and de-gritted.

As Council is doing at Cedar Grove WWTP, we will put systems in place to achieve a net improvement in the health of the Logan River catchment. This is being achieved by producing effluent with ultra-low nutrient levels and an upstream nutrient offsets program (including revegetation of sections of riverbank) to improve nutrient levels in the river and prevent tonnes of sediment from entering the waterway each year.

19. How will odour from the facility be managed, and can you guarantee nearby residents won't be affected?

Odour management is a feature of modern treatment plants. Potentially odorous parts of new plants are fitted with equipment to capture and treat odorous gases. The expectation is that there will not be adverse odour impacts on residents whose properties are adjacent to the buffer zone of the plant.

To further support this, the Department of Environment and Science will require that Council complies with the requirements of its *Odour Impact Assessment from Development Guidelines (2013)*. As such, Council will be required to demonstrate that the treatment plant does not cause environmental nuisance or harm (for residents) from odour.

WWTP B has not been designed, but odour management initiatives will include:

- provision of an undeveloped buffer between main structures and residential areas
- capturing and treatment of odorous gases (eg via trickling filters and activated carbon scrubbers) at critical points in the treatment process (eg inlet works).

Council will invite local community members to visit another modern WWTP in coming months to review the ways odour is managed.

20. Is the buffer between the facility and the closest residents sufficient?

There is no legislation which requires Council to provide a buffer zone of a minimum size around the main WWTP structures. Our proposed provision of a buffer of this size (catering for the ultimate capacity of the plant) responds to current government guidelines on the siting of potentially odour-causing infrastructure.

The recommended buffer distance for WWTPs was first put forward by the Victorian Environmental Protection Agency and has since been adopted by State Government agencies around Australia. As an example of relevant guidelines (and reference to a recommended 500m buffer for high impact industry), please refer to the State Planning Policy 5/10 Air, Noise and Hazardous Materials which can be found online here:

<https://www.cabinet.qld.gov.au/documents/2010/oct/spp%20air-noise%20and%20hazardous%20materials/Attachments/air-noise-hazard-policy%5b1%5d.pdf>

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21. Will this new plant process sludge / biosolids on site or transport it off site?

As the treatment plant has not been designed, detailed work on biosolids handling has not been undertaken. However, the management of biosolids across Logan's existing WWTPs (and south east Queensland) involves contractors transporting biosolids in closed trucks to the Darling Downs for agricultural soil improvement. This activity is regulated by the State Government.

22. Where would the access road to the WWTP be?

Access to the WWTP would be off Pleasant View Road.

PROPERTY / LIFESTYLE ISSUES

23. Will the facility affect local property values?

There is no evidence to suggest local property values will be affected. In other suburbs where Council operates WWTPs, property values continue to increase (eg the Loganholme median house price has increased from \$318,500 in 2007 to \$396,000 in 2017, and in Jimboomba the median house price has increased from \$392,500 in 2007 to \$480,000 in 2017 – source *Price Finder*).

Modern wastewater treatment facilities are relatively unobtrusive. They comprise low rise structures surrounded by a planted buffer zone between structures and residential properties. Vegetation is used to soften the appearance of structures and provide screening for residents. If wetlands are incorporated, they will be designed to be visually pleasing. A modern odour control system will also be provided.

24. How will community amenities on the site benefit local people?

Council will establish a Community Reference Group to provide input on aspects of the WWTP design and delivery. This includes providing input on site amenities that benefit the local community (which could range from walking trails to sporting facilities). A similar group is active for the Cedar Grove WWTP. This group has prepared a site masterplan with Council (see below) which includes staged delivery of community facilities including walking trails and a Landcare nursery. The first stage of these facilities is funded as part of the project and will be delivered in coming months.



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25. Chambers Flat and Park Ridge South are developing fast. How do I find out about forward planning for the area?

Council has prepared a local area plan for Park Ridge South and Chambers Flat. Information is available on Council's website: <https://www.logan.qld.gov.au/planning-and-building/planning-and-development/planning-and-design-projects/park-ridge-south-and-chambers-flat-plan>

Residents can also find current Planning Scheme information about individual properties or the local area at: <https://loganhub.com.au/dashboard>

Chambers Flat Road from Mt Lindesay Highway to Kings Way will be upgraded in the near future. This section has been designed. More information is available at: <https://www.logan.qld.gov.au/planning-and-building/maintenance-and-works/roadworks-in-logan/chambers-flat-road-upgrade-mount-lindesay-highway-to-kings-way>

There is also information about upgrading different sections of Chambers Flat Road and other major roads in Council's WaytoGo Transport Plan available here: <https://www.logan.qld.gov.au/planning-and-building/planning-and-development/way2go>

COMMUNITY ENGAGEMENT

26. Who do we contact about this project?

Council's Logan Water Infrastructure Alliance will plan the WWTP. The alliance's community team can assist residents' with questions. Please contact:

Tania Keelan
Community and Stakeholder Engagement Officer
community@loganwia.com.au
Phone 07 3412 9609

27. How do I get more involved in the planning and design process?

Chambers Flat residents living near the site may wish to nominate for the project's Community Reference Group. This group will be established in the second half of 2019 to provide input on the development of the WWTP. Please contact Logan Water Infrastructure Alliance if you would like to obtain the Terms of Reference for the Community Reference Group and a nomination form.

28. As Logan City Councillors have been dismissed, who represents me in my Division with regard to this project?

Logan City's Interim Administrator, Tamara O'Shea, currently has all the powers and responsibilities of the former Mayor and Councillors. You are still able to discuss issues and complaints about activities in your Division by emailing council@logan.qld.gov.au. More information about the Interim Administrator is available on Council's website at: <https://www.logan.qld.gov.au/about-council/office-of-the-interim-administrator-and-divisions>

ENDS