

Chambers Flat Wastewater Treatment Plant Project

Frequently Asked Questions – February 2022

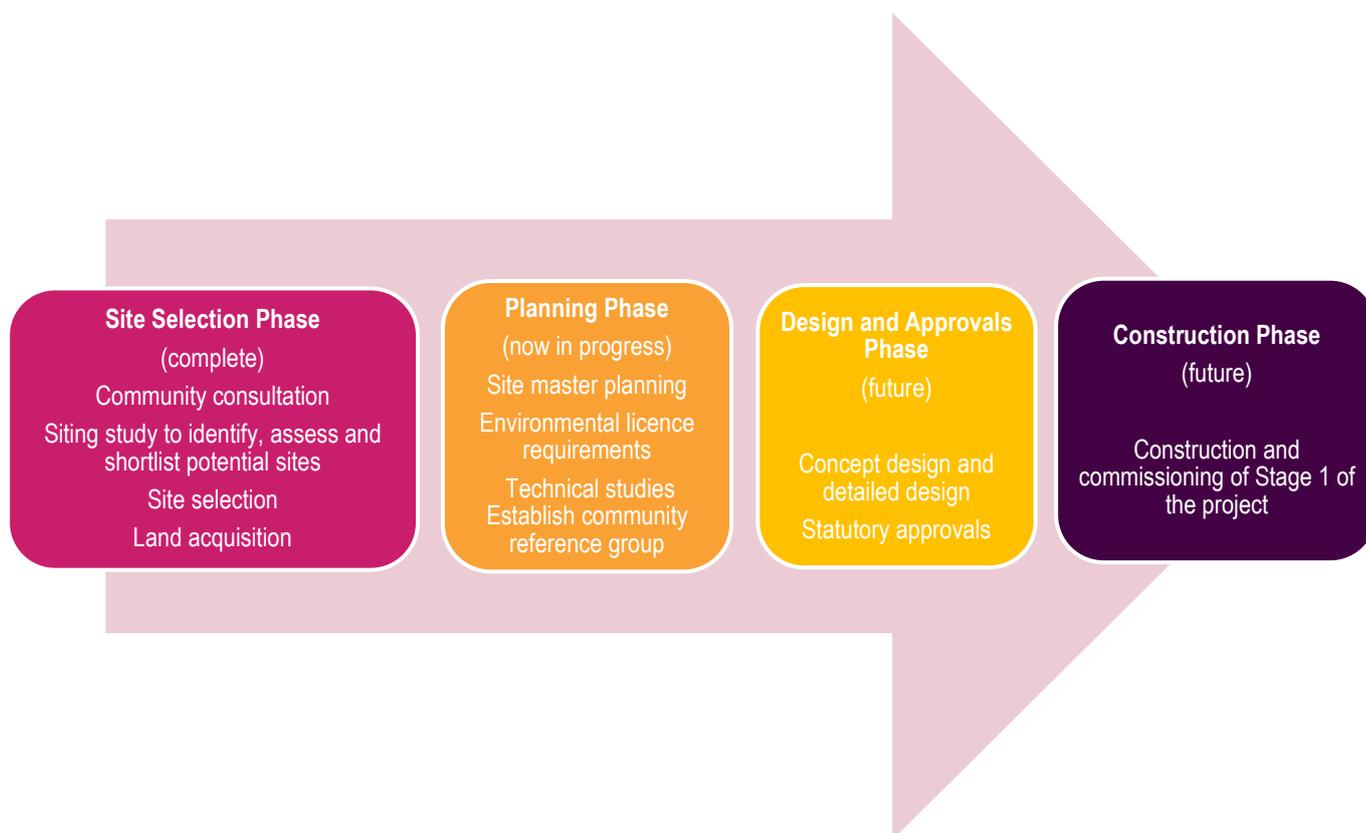
Project Status

1. What phase is this project at?

The project is in the planning phase. This phase involves scoping the project, developing a site masterplan, conducting technical studies and seeking guidance on environmental license requirements. Studies to be conducted include: recycled water management; treatment capacity and process; operational impacts modelling; environmental and cultural heritage assessments; trunk pipeline routes; and legislative requirements. A diagram showing key phases of this project is below.

2. When will construction occur?

While the construction timeframe for the Chambers Flat WWTP is known, the facility is not likely to be needed for several years. The timing depends on development growth in the corridor from Park Ridge to Yarrabilba.



The Site

3. Does Council have land for the wastewater treatment plant (WWTP)?

Yes. Council acquired land at Pleasant View Road Chambers Flat in September 2020, when a resumption application was approved by the Minister for the



Pleasant View Road site, looking toward the Logan River

Department of Natural Resources, Mines and Energy.

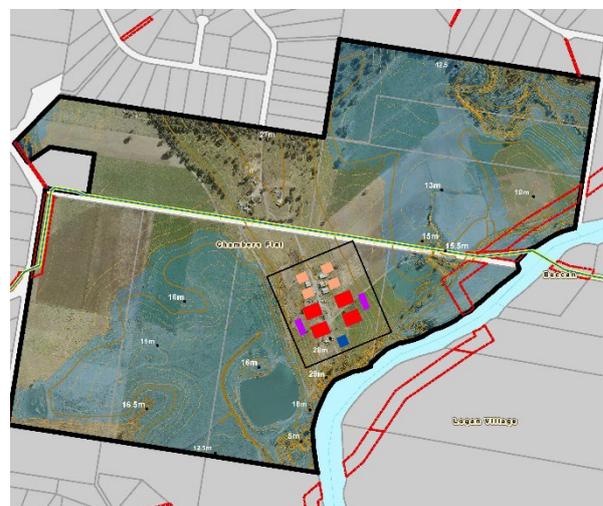
4. How much land was acquired for the WWTP?

The 144 hectare site comprises several parcels of land on Pleasant View Road at Chambers Flat, shown below.



5. Where would the WWTP be located on the site?

The WWTP structures would be located above flood prone land as shown in the indicative concept plan below. Note that the size of the WWTP structures 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.



Possible location of the main WWTP structures on site (all stages)

6. 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.

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

The zoning of the land where the Chambers Flat WWTP site is to be located is 'rural' under the Logan Planning Scheme. Council's development of a public utility in a rural zone does not require a development application under the Planning Scheme.

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. 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 Chambers Flat WWTP 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.

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

Community engagement and consultation began in July 2018 and continues today. The steps to date include:

Step 1: 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 in the 'search area' for an appropriate site to service the identified wastewater catchment, seeking feedback on issues Council should consider when selecting a wastewater treatment plant (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, at a pop up stand on Stockleigh Road and at the 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.

Step 2: Council conducted a siting study to assess 24 potential WWTP sites

identified through desktop analysis, with community feedback from the mass letter drop and Have Your Say used to develop selection criteria for comparing sites. 19 of the identified sites were found unsuitable and a detailed analysis applied to the remaining five sites with two sites with strongest potential identified in late 2018.

Council conducted consultation with property owners whose land was in proximity of the two short-listed 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 sites were necessarily confidential in line with the requirements of the *Privacy Act*. All owners also participated in a confidential and independent property valuation process. Council subsequently resolved to acquire the Pleasant View Road property in April 2019.

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

Step 4: Since announcement of the location of the WWTP:

- Council's Interim Administrator met with a delegation of Chambers Flat residents to discuss the project and residents' questions and concerns
- Logan Water hosted a tour of the Cedar Grove Environmental Centre for interested Chambers Flat and surrounding residents
- Logan Water hosted a tour of modern WWTPs on the Sunshine Coast for interested Chambers Flat residents
- Logan Water delivered several project update newsletters to all residents in Chambers Flat and parts of Logan Village.
- Logan Water prepared a community engagement plan for the project and provided this to Councillors for comment
- Logan Water prepared draft Terms of Reference for a planned Community Reference Group and associated invitation letters and forms

Step 5: In July 2021, Council issued an invitation to all Chambers Flat and some Logan Village community members to nominate for a project Community Reference Group. The aim of the Community Reference Group is to provide Council with input on many aspects of the project, from master planning to construction.

Step 6: Between December 2021 and January 2022 ten residents of Chambers Flat were selected as members of the Community Reference Group. This group will work with the Logan Water project team to provide input on many aspects of the planning, design and delivery of the project.

9. What selection criteria were used to pick 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. More information on the selection criteria and methodology is available on request.

Assessment Criteria		
	Description and weightings	
40% Community	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%
30% Environment	Sensitive/protected species clearing (flora & fauna)	10%
	Impact on waterways	10%
	Construction impacts, including cultural heritage and others	10%
30% Cost	Net present value of infrastructure	30%
	Total	100%

Flooding Issues

10. In the past some residents used part of the site 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. A formal, written agreement may be required in certain circumstances.

11. Will the WWTP contribute to local 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 previous experience with the WWTP at Cedar Grove Environmental Centre, the Queensland Department of Environment and Science 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 (licence).

For reference, the WWTP at Cedar Grove is designed to receive about five times normal dry weather flows to ensure that no release of untreated flows occurs during extreme wet weather events.

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

At this stage of the project, it is not known if wetlands will be used to polish highly treated wastewater to achieve very low

nutrient levels. During the planning of Chambers Flat WWTP, the environmental regulator (Department of Environment and Science) will be consulted about compliance requirements for operating the WWTP. This will determine treatment standards, the type of treatment process to be used, and nutrient management options.

If used, wetlands would be designed and constructed so that they do not contribute significantly to pollution during wet weather events.

Servicing of Existing Properties

13. 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 Chambers Flat WWTP 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 2015*), any future wastewater servicing potential will be assessed at that time.

Technical Issues

14. What is the treatment technology to be used at the Chambers Flat WWTP?

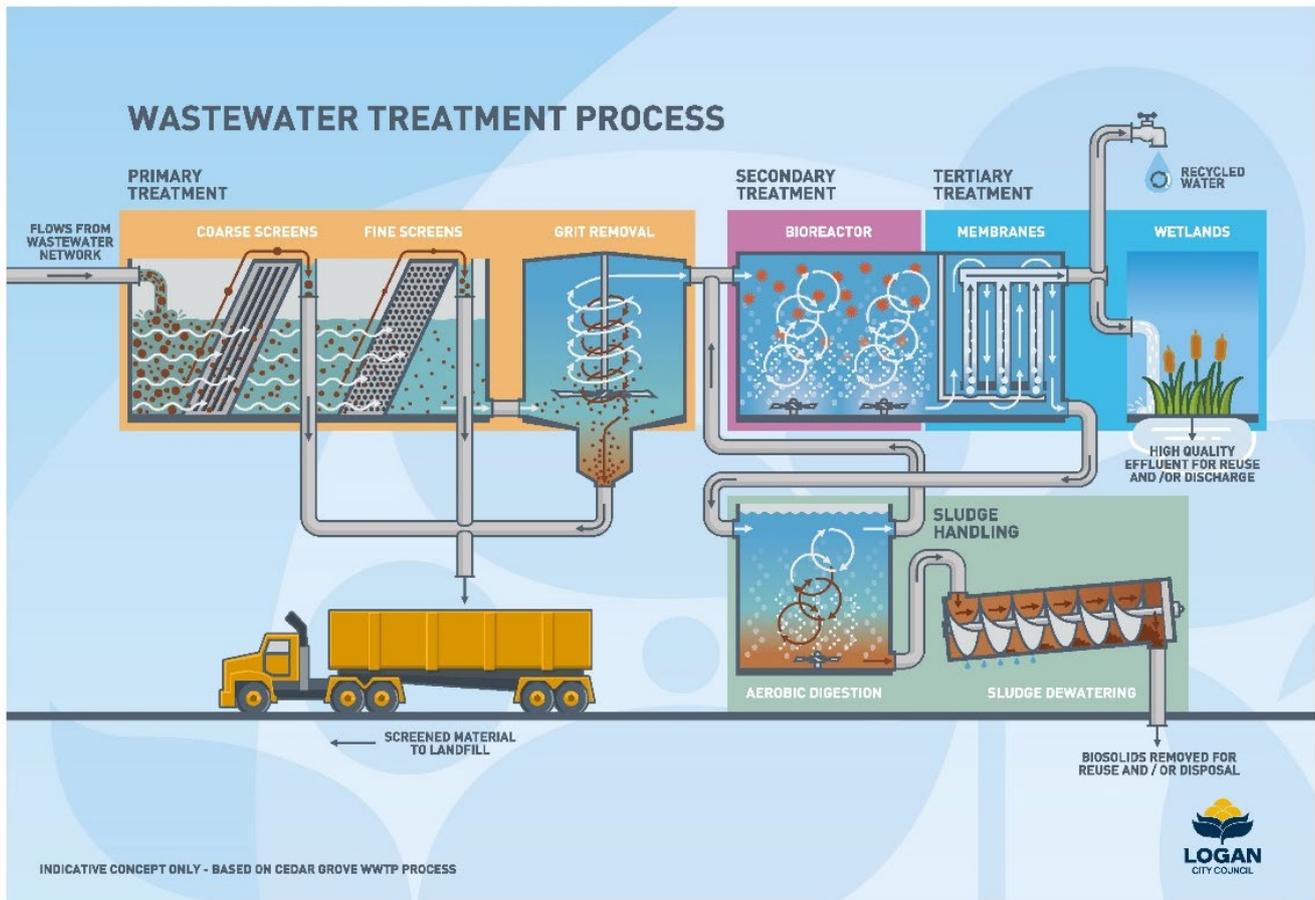
The project is in the planning phase and there is no concept design as yet. However, as a modern WWTP, Chambers Flat WWTP may use membrane bioreactor (MBR) technology. MBRs consist of fine

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.

Highly treated wastewater 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). On the following page is a schematic sketch of the treatment process based on the approach used at Cedar Grove Environmental Centre (note: the schematic does not include the constructed wetlands treatment process in detail).

15. How much treated wastewater will come out of the facility?

The volume of highly treated wastewater 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 2024 – yet to be confirmed) the volume of treated wastewater 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.

16. What will be in the highly treated wastewater, 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 licence requirements for Chambers Flat WWTP.

However, it's possible they could be similar to those applied to Council's WWTP at Cedar Grove 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 highly treated wastewater is discharged to the Logan River. The licence also requires Council to provide the capacity to fully treat about five 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 has done at Cedar Grove Environmental Centre, we will put systems in place to achieve a net improvement in the health of the Logan River catchment. At Cedar Grove, this is being achieved by producing highly treated wastewater 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.

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.

Chambers Flat WWTP has not yet 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).

17. 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. However, our proposed provision of a buffer (catering for the ultimate capacity of the plant) responds to current government guidelines on the siting of potentially odour-causing infrastructure.

During the planning phase of the project, the project team will conduct an odour impact assessment to consider potential impacts from Stage 1 of the WWTP as well as its ultimate layout.

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

As the Chambers Flat WWTP has not yet 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.

Council is now building Australia's first biosolids gasification facility at

Loganholme WWTP to transform biosolids into energy and an environmentally friendly soil improver called biochar. The facility will be operational by mid-2022. It is possible that biosolids from several WWTPs in Logan will be transported to the Loganholme facility for processing.

19. Have any environmental studies been undertaken yet?

Initial ecological surveys were completed on the site in July 2021. There will however, be significant environmental studies undertaken and when details of these studies become available, they will be shared with the community.

20. Is Council planning to recycle the water from the WWTP?

Council is considering options for using recycled water from the Chambers Flat WWTP and has surveyed residents in Chambers Flat and Stockleigh on their potential uses for recycled water on their land.

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

Access to the WWTP would be off Pleasant View Road.

Property and Lifestyle Issues

22. 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 \$365,000 in 2013 to 503,669 in 2021, and in Cedar Grove the median house price has increased from \$399,000 in 2013 to \$690,000 in 2021 – source *Real Estate.com.au*).

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.

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

The, the Community Reference Group will 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 was set up for the Cedar Grove Environmental Centre. This group helped to prepare a site masterplan with Council which included community

facilities such as walking trails, picnic tables and a Landcare nursery.



Master plan for Cedar Grove Environmental Centre

24. 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:

[Place-based projects: Park Ridge South and Chambers Flat – Logan City Council](#)

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:

[Chambers Flat Road Upgrade – Logan City Council](#)

There is also information about upgrading different sections of Chambers Flat Road and other major roads in Council's WaytoGo Transport Plan available here:

[Way2Go: Connecting Logan – Logan City Council](#)

Community Engagement

25. Who do we contact about this project?

Council's Logan Water will plan and deliver this project. The community engagement team can assist in answering questions. Please contact Community Engagement Officer Tania Keelan at:

Email: watercomms@logan.qld.gov.au

Phone: 07 2899 7457 or 0439 736 313

Website: www.logan.qld.gov.au