Penshurst Adaptive Wastewater Pilot Project

Newsletter - December 2022

Welcome to our second newsletter for the Adaptive Wastewater Pilot Project in Penshurst. In this edition we announce the newly gazetted Penshurst Sewerage District, celebrate news of our successful funding bid and introduce the Pilot Project.

Overview

Since our last <u>newsletter</u>, there's been a lot of activity to progress the Penshurst Adaptive Wastewater Pilot Project including:

- The Penshurst Sewerage District has been created.
- Wannon Water and Southern Grampians Shire Council (SGSC) have been successful in obtaining funding for a Pilot Project to test our Adaptive Wastewater concept within one of the 12 precincts in Penshurst. This funding was awarded by the Department of Environment Land Water and Planning (DELWP) under the Integrated Water Management (IWM) program.
- The project team have spoken directly to residents of the Pilot project area, which we refer to as Precinct 1 (refer map on page 2).

Funding announced

We first introduced this project during face-to-face discussions with the community in November 2019. The project is one of a handful of integrated water management (IWM) projects being delivered across the Great South Coast IWM Forum region and is supported by the Victorian Government.

We're pleased to announce that we have received funding from DELWP for a Pilot Project that will be delivered by Wannon Water in partnership with SGSC and Glenelg Hopkins Catchment Management Authority (GHCMA). Wannon Water and SGSC are contributing funds and in-kind support to the project with the GHCMA providing support through in-kind contributions.

Penshurst Sewerage District

The Penshurst Sewerage District has been now been created under section 122G of the Water Act 1989 and announced through the Victorian State Government gazette (No. G 33 Thursday 18 August 2022).

The Water Act 1989 sets out the functions of water corporations with regard to sewerage districts as outlined below:

Water Act 1989 (section 173)

(1) An Authority that has a sewerage district has the following functions:

- a. to provide, manage and operate systems for the conveyance, treatment and disposal of sewage and, if the Authority so decides, of trade waste;
- b. to identify community needs relating to sewerage services and to plan for the future needs of the community relating to sewerage services;
- c. to develop and implement programs for the recycling and reuse of treated wastewater;
- d. to investigate, promote and conduct research into any matter which relates to its functions, powers and duties in relation to sewerage services
- e. to educate the public about any aspect of sewage.







What does the pilot involve?

The Penshurst Pilot Project will enable the adaptive sewerage servicing concept to be trialled at a smaller, measurable and lower risk scale prior to potentially rolling out across Penshurst and other similar unsewered townships. The Environmental Protection Act 2017 provides provisions for the Victorian Environmental Protection Authority (EPA) to issue 'Pilot' Licences to test new sewerage technologies and servicing approaches.

The pilot involves trialling the treatment of raw sewage from 29 existing properties (31 allotments) in Precinct 1, which is one of twelve precinct-based sewerage systems. The treated recycled water will be used to irrigate public open space via an irrigation system below the ground.

The pilot will allow the Project Team consisting of staff from Wannon Water, SGSC and DELWP to test the effectiveness and suitability of the sewerage scheme and identify specific implementation requirements that cannot be determined without a 'real world' trial.

It will also provide an opportunity to develop proof of concept and an adaptive pathway approach to wastewater management that has the potential to deliver better environmental, public health, social and economic outcomes in other unsewered townships.

How does it work?

As part of the trial we will temporarily bypass your existing septic system and transfer the sewage via gravity to the dedicated treatment area. We then collect solids, and transfer fluid to the evapotranspiration (ETA) pods. Water is taken up by vegetation and evapotranspiration takes place to reduce the amount of wastewater. This will result in a better quality of wastewater that is then moved from a circulation tank to a recycled water tank to be used on public open space when required.

A representation of the system is outlined at *Figure 1*.

How will it be monitored?

A key part of the pilot project is the implementation of a Monitoring Program which will involve collecting soil and water samples before, during and after the trial to characterise the broader environmental and human health benefits of the project.

Additionally, part of the Monitoring Program will include documentation of the community's experience and opinion of the amenity, the look and feel and livability benefits of the pilot project.

Next steps

The project team plans to be on the ground throughout December 2022 and early 2023 to again engage with residents, complete further site investigations and to install baseline monitoring equipment to monitor existing conditions within Precinct 1.

If you live in Precinct 1, the Project team will be in contact with you. If you have any questions, please be in touch with us via email and we'll get in contact with you to discuss.

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