

RICHMOND VALLEY COUNCIL POLICY REGISTER

Policy No: 3.20.3

Reference: Sewerage and Drainage - Design and Construction, Planning, Policy

POLICY:	PRESSURE SEWERAGE
FUNCTION:	Sewerage Services
OBJECTIVE:	To provide specific direction in relation to the use of pressure sewerage systems in Council's area
DIRECTORATE:	WORKS

POLICY

1. INTRODUCTION

This document is intended to provide specific Council policy in relation to the use of pressure sewerage systems within Richmond Valley Council. The need for this separate policy document arises from the recognition that previous Council policy, developed for more traditional sewerage technologies, will not always be applicable to pressure sewerage installations.

This policy statement is supported by the following additional Council pressure sewerage documentation:

- A Pressure Sewerage Code of Practice that explains in more detail the intent and implementation of this policy document.
- A set of Pressure Sewerage Engineering Standards.
- A Home Owner's Manual to guide the Resident in the Use of the Technology.
- A Pressure Sewerage Operations and Maintenance Manual.
- A specific pressure sewerage Customer Services Agreement.
- General information on what a pressure sewerage system is, to inform potential property owners on what to expect from their system.
- The Water Services Association of Australia's Code on Pressure Sewerage Systems (WSAA - 07).

All of this documentation is intended to ensure the consistent application of this technology throughout the Council area, as well as obtaining the optimum performance from such systems. Pressure Sewerage Systems, as covered by this policy, are briefly defined as a dedicated central (or reticulated) sewerage system comprising:

- A dedicated pressure sewerage pumping unit installed on each property with the collective action of those pumping units being responsible for the pressure to move the sewage from the property, to the designated discharge point for the system.
- A property service line on each property that connects the pumping unit to the boundary valve arrangement.
- Boundary valves installed on each property to allow the property to be isolated for repair purposes and prevent backflow onto the property.
- A common collection system, designed specifically for a pressure sewerage system. It is to connect the individual properties to be served to the designated

discharge point. Such systems follow minimum depth principals, rather than being laid on grade.

- A dedicated point for the discharging of all sewage collected in this manner, with this point to always be nominated by Council.
- Individual grinders (or cutters) and dedicated individual alarm systems to warn residents when their pumping unit is not working.

The minimal requirements for these systems are set out in Council's Engineering Standards for Pressure Sewerage Systems, and are not intended for this document.

2. THE USE OF PRESSURE SEWERAGE IN THE RICHMOND VALLEY AREA

Pressure Sewerage is one of several sewerage service options available to Council in sewerage different parts of the Council area of responsibility. Its usage will generally be limited to applications where:

- It represents the most economical overall solution for Richmond Valley Council and the people of the Richmond Valley Council area, over the life of the pumping units.
- There are specific environmental reasons/benefits that mandate the usage of this technology in a particular location.
- There are specific site requirements that mandate pressure sewerage's usage, in a particular location.

The final choice of any sewerage technology to be adopted for a particular location will remain with Council, and any party proposing to utilise pressure sewerage will need to specifically address the above criteria, in their development submission to Council.

Council requires in its pressure sewerage applications that a single standard size pumping unit will be installed on all residential properties and then connected to the collection system. The technology is, however, not limited to residential applications, with some non residential applications possibly including larger pumping units or multiple pump applications. These must be specifically designed for their particular application. These non residential applications will be permitted subject to:

- Such applications having been allowed for in the collection system design.
- Such applications having been designed by an appropriately skilled designer.
- The technology being proposed is able to be reasonably supported by Council.

This policy statement needs to be read in conjunction with the other supporting pressure sewerage documents as set out in the "Introduction" of this document. Particular overlapping documents are the Code of Practice and the Pressure Sewerage Engineering Standards.

3. PRESSURE SEWERAGE TECHNOLOGIES TO BE SUPPORTED BY COUNCIL

The pressure sewerage system will be based on a standard residential pumping unit being adopted and more specialised applications being used for non residential

applications where the standard unit will not be suitable. That standard unit will be selected on the basis of the technology that Council believes best meets its needs.

Richmond Valley Council will generally operate only one pressure sewerage technology, as defined in its Engineering Standards, until it reviews this policy in 2015. Council will not accept handover of any other pressure technology from Developers (or other parties) for operation by Council, before that date.

This policy direction, however, does not preclude Council from moving away from any technology adopted by it previously, if it is discovered that the technology is not up to the standards required by Council, or it discovers other technologies that may be better suited to a particular isolated application.

Council will assist other parties wanting to use this technology by having a long term supply contract with the selected Technology Supplier and making the pumping units (and other associated fittings) available to those parties at its contract prices.

4. THE COLLECTION SYSTEM

The collection system is the term that describes those pipelines that collect the wastewater from each property and transport it to a designated discharge policy. They are to be laid in the road reserve and will include the boundary kits on each property, isolating valves, air valves, non-return valves, etc as per Council's Engineering Standards. These systems are to be designed by persons with relevant experience and skills with pressure sewerage and handed over to Council where Council was not itself directly responsible for the construction of the collection system.

Such handovers will meet the requirements of Council's Pressure Sewerage Engineering Standards. Council will then operate and maintain the collection system from that point forward.

Council will need to approve any pressure sewerage collection system before it is constructed or it will not accept handover. Council defines this sewerage collection system as extending to, and including the boundary kit on each property.

Any residential connection to the boundary kit will be automatically permitted, where a boundary kit has been provided to the property. Any non residential connection, whose discharge requirements are outside of those parameters for a standard connection as defined in the Council Pressure Sewerage Engineering Standards, will require prior Council approval. The exception to this approval requirement will be for any collection system that has been specifically designed for those non residential connections.

If the property is not connected to the collection system then prior Council approval will be required before such a connection is made and Council will then organise such a connection and a boundary kit to be placed on the property. The property owner will meet all costs of providing this connection.

5. OWNERSHIP OF THE ON PROPERTY SYSTEM

The residential pumping unit, the electrical connections and the property service line connecting the pumping unit to the boundary kit will become the property of Council, after installation, and the successful handover of that system to Council. No resident on the property is thereafter to interfere with the unit, nor attempt to gain entry to the unit, or attempt to conceal the unit.

Any non residential connection that does not comply with the definition of a standard connection, as set out in the Council Pressure Sewerage Engineering Standards (but has been allowed to discharge into the collection system), will remain the property of the property owner.

Pumping units on public land are to be sealed such that it is not possible for these to be reasonably accessed by members of the public.

No easement will be pursued for the 'on property' systems on private land, unless problems arise on a particular property, which may require this action to be taken at a later date.

6. OPERATION AND MAINTENANCE OF THE PRESSURE SEWERAGE SYSTEM

For standard residential applications the pumping unit, the property service line and the pressure sewerage common collection mains will all be maintained by Council, in response to community /individual calls for assistance should any part of the system fail.

Council will in this role be responsible for:

- The perpetual maintenance and repair of the pumping units and property service line (on the property).
- The collection systems into which they discharge, including the boundary kits.
- Supporting this maintenance with a 24 hour a day call centre.
- Holding sufficient spare pumps and parts, to allow for the maintenance of these units to occur in acceptable time frames.
- The eventual replacement of the pumps, when they wear out.
- Holding all property drawings for subsequent reference by property owners.
- Providing the resident with a Home Owner's Manual and supporting that with other general advice as required.

The property owners will be expected to enter into a specific Customer Service Agreement in relation to the provision of these maintenance services, in which the full details of the service provided will be set out in accordance with the above general directions.

For non-residential connections based upon a standard pressure sewerage installation, Council will also provide the above listed services excepting that it will not be responsible to augment such systems to meet increased loads that may be generated on the site, and are beyond the capacity of a standard connection. Any such augmentation will be the responsibility of the property owner but the revised

system may be handed over to Council providing it is based on Council supported technology. Prior Council approval to such augmentations will be required. The owners of these properties may elect to enter into a more commercial service arrangement than the standard residential arrangement, with Council.

For large private applications where a separate internal pressure sewerage system is involved, Council will only maintain the internal pressure sewerage system where that owner/governing body has entered into a specific Customer Service Agreement for that application. Where such an agreement has not been signed then the owner will be solely responsible for the operation and maintenance of these internal systems.

The services provided by Council under any such arrangement will be in accordance with the specific Customer Service Agreement applicable to that property.

For non-residential (non-standard) applications the property owners can engage another qualified body to carry out this maintenance but at minimum such systems must be maintained by a recognised expert body if they are to be connected to Council sewers. Council will require a copy of the maintenance arrangements be submitted to it as part of the Development Application, along with copies to the NSW Health Department and the Department of Environment and Climate Change. In this manner Council will ensure that appropriate long term maintenance arrangements exist before such a system can be connected to its collection system.

If any of these different regulators are not satisfied with the proposed maintenance procedures, then the proponent will need to revise their proposal.

In carrying out its maintenance obligations Council will, in general, endeavour to mirror the maintenance services provided for its more traditional sewerage services, particularly during business hours. However, for after hour's service, it will specifically provide the following additional services:

- Next day repairs or replacement of the pumps for after-hours responses to high level alarms, to minimise the inconvenience to residents.
- As soon as possible response to any emergency situation with the potential for an overflow.

Individual (or groups) of properties may require isolation for short periods for the maintenance of the common collection mains. The property systems will, therefore, be designed to accommodate this short term interruption.

7. POWER TO THE PUMPING UNIT

The pumping unit will be connected into the property electrical power board and will not be metered separately. The residents on the property will meet the power costs for the operation of the pressure sewerage pumping unit on that property, as part of their normal power bill. There will be no Council contribution towards these costs.

8. REQUIREMENTS OF PROPERTY OWNERS AND RESIDENTS

The Property Resident is required to:

- Notify Council immediately if the pumping unit alarm sounds, or the system overflows, or displays any other fault.
- Not discharge into the pumping unit any of those substances identified as inappropriate in the Pressure Sewerage Home Owner's Manual.
- Read and comply with the other requirements set out in the Home Owner's Manual.
- Not interfere with the operation of the pumping units in accordance with what is detailed in the Pressure Sewerage Home Owner's Manual.
- Act responsibly with these systems and in particular not seek to gain access to these systems.
- Pay the power bills by the due dates.
- Provide reasonable access to Council maintenance crews when required.
- Contact the property owner if there is a problem in the private sewerage system upstream of the pumping unit and then ensure the repairs are carried out appropriately.

The Property Owner is required to:

- Ensure the resident (if different from the property owner), understands that the property is serviced by a pressure sewerage system and that they have a copy of the Pressure Sewerage Home Owner's Manual.
- Ensure their systems are being appropriately maintained for those non-residential systems that are not being maintained by Council.
- When contacted by a property resident that there is a problem with the private sewerage system, have a licensed plumber attend to this problem in the shortest possible timeframe.
- Understand the limitations of the sewerage system if the application is for a non-residential application and not seek to operate outside those limits.
- Pay the annual sewer rates.
- Ensure that there are no works carried out on the site that might interfere with the operation and maintenance of the pumping unit.
- Ensure that any proposed modifications to the site that may impact on the pressure sewerage system are communicated to Council, before any such works are carried out.
- Ensure there are no inappropriate discharges from the site particularly for non residential applications.
- Enter into a formal Maintenance Agreement with Council where appropriate.

9. ACCESS FOR COUNCIL MAINTENANCE PERSONNEL

It will be a condition of being connected to any Council pressure sewerage collection system that the property owner's consent will be given to allow Council, or its agents, to enter the property and undertake any repairs to the pressure sewerage unit. These repairs should be able to be done in a timely and safe manner.

Details of the Council requirements in relation to access will be detailed in the Home Owner's Manual. Where the resident has not provided reasonable access or fails to

secure pets, or modifies the property to make access difficult, etc, then Council may refuse to provide the service call in accordance with this policy. In these instances the property owner/ resident may be charged the additional costs incurred by Council in having to return to the site or for unnecessary work done by Council in repairing the unit.

10. IDENTIFICATION OF COUNCIL MAINTENANCE PERSONNEL

Any Council employee (or contractor) entering private property must have photographic identification and appropriate authorisation to enter that property. There will not generally be a need for a Council presence on the property except in response to a resident's request for maintenance work to be carried out on the pumping unit or connecting pipeline.

If some unforeseen event requires investigation, then Council will endeavour to provide prior written notice, before coming onto the property to ensure the resident has the ability to confirm that the activities are being undertaken by Council. Where it is impossible to provide such prior warning Council officers will provide the resident with some means of reassuring themselves that the maintenance personnel are on site for appropriate reasons. This verification will be carried out on a case by case basis.

11. NEW SUBDIVISIONS (DEVELOPER POLICY)

Developers wishing to utilise pressure sewerage systems to service their particular development in the Richmond Valley Council Area must first gain Council concurrence to the use of this or any other sewage technology. Assuming that such approval is granted, the Developer will thereafter be responsible for:

- Meeting all costs to provide the pressure sewerage system for the specific development they have applied for. This includes meeting any augmentation required to downstream systems that results from accommodating the development.
- Ensuring the design of that system meets Council's Pressure Sewerage Engineering Standards and that the design work is carried out by suitably qualified and experienced personnel.
- Physically supplying and installing any collection mains to the properties and the Council designated discharge point. This includes the supply and installation of the boundary kit at the property boundary and connecting them to the collection mains.

For minor subdivisions no additional downstream collection main capacity may be required but this must be verified by a qualified system designer, unless otherwise designated by Council.

- Installing only the materials and technology that Council will maintain. A copy of the Council Pressure Sewerage Engineering Standards will be provided to the Developer on request to assist with their Development Application.
- Formally handing over the pressure sewerage assets to Council through the designated handover process in the Engineering Standards. These assets must be fit for purpose (as defined in those standards).

- Meeting any headwork's contributions required by Council for downstream infrastructure.
- Paying the Property Levy as defined in Council's Fees and Charges.
- Providing all information required by Council on the pressure sewerage system they have installed including any drawings required.

The pressure sewerage system for Developers is defined by Council as including the on property works of supplying and installing the pumping unit, as well as the property service line connecting the property boundary kit to the pumping unit. As this work cannot be carried out until each dwelling on the new subdivision is effectively ready for occupancy, the Developer will be required to pay a Property Levy directly to Council as part of their development application. This will be to cover the on property work being carried out at a latter date. Council will then take responsibility for organising this property installation work with the property owner when it is required.

Once that Levy is paid and all of the collection system works successfully handed over to Council, approval will be given by the same, for the properties to be released for sale. This assumes that all other works associated with the development have also been successfully completed.

The costs of that Levy will be formally advised to the Developer when they lodge their development application but these will also be listed in Council's annual Fees and Charges. Council will then administer that Levy and ensure that each property is serviced when the dwelling is nearing occupancy. The property owner will be responsible for the installation of the pumping unit and property service line and any other unique requirements that they may have. These costs are not to be included in the Property Levy.

New subdivisions have an extensive formal design requirement placed on the Developer with the need for a review of the impacts that any such subdivision may place on downstream infrastructure (including any required augmentation). This is over and above any headworks charges also required. For minor subdivisions to existing systems where no new collection mains are required or only minor mains work is required then this design verification requirement can be overlooked, as being an inappropriate cost burden to the Developer.

Where the subdivision is minor in nature Council would carry out any main laying required and the Developer would make a contribution towards these works in accordance with the nature of their particular Development. The Developer will still be required to pay any Section 64 Headworks charges, as well as the Property Levy.

12. SERVICING EXISTING AREAS OR PROPERTIES

Where a pressure sewerage system is to be installed in an area that has previously been unsewered, then Council will be responsible to design and deliver such a system. This will include the provision of the pumping units to the existing developed properties within that area, at the time the system is installed, with the termination point normally being the upstream connection to that pumping unit. Council will

advise residents at the time of any costs they are likely to bear as a result of proceeding with these works.

Vacant lots with a building entitlement that are within that area to be serviced, will be provided with a boundary kit, and it will be the responsibility of the property owner to organise the installation of the pumping unit at a latter date through Council, when their building is nearing occupancy. The property owner will meet any costs advised to them by Council.

Those property owners of unsewered properties that are already in a defined urban area that is in close proximity to an existing sewerage system (conventional or alternative technology), may approach Council to explore the feasibility of a connection to that system, using pressure sewerage. Council will within a reasonable timeframe, investigate that option and if the scheme is subsequently deemed viable, then such a connection will be made, subject to the property owners agreeing to meet the costs incurred. In these instances the property owner will be responsible to meet the costs advised to them by Council for the construction of the collection system, discharge point, boundary kit etc to service the property/properties. They will also be responsible to meet Council's costs to have the pumping unit and property service line installed. The property owner will need to organise their own plumber to have their own domestic plumbing connected to the pumping unit.

For those properties that have their own private pump up system, they may retain their existing system or convert to a Council pressure sewerage system. The property owner will bear all costs associated with the change over from their existing system to the pressure sewerage system, but Council will then accept handover and maintain the unit, as it does all other pressure sewerage systems in the Richmond Valley Council Area.

This pressure sewerage policy does not otherwise cover private pump up arrangements, which will remain unique to their particular application.

For existing properties that have been developed, the electrical and sanitary plumbing services to the as constructed buildings on those properties will need to be inspected prior to the installation of any pressure sewerage system. Where it is determined that these services need to be repaired or brought up to industry standards, the cost of doing this will be meet by the property owner and the works must be carried out in the timeframe identified by Council for the work to proceed.

13. INSTALLATION OF THE PUMPING UNITS (RESIDENTIAL)

The actual installation of the pumping unit and the property service line on the residential property are to be carried out in accordance with the Technology Supplier's Installation instructions and the Council Pressure Sewerage Engineering Standards. The basis of these standard residential connections will be that only one standard pumping unit is to be installed per residential property. Any exception to this rule will require that permission be given by Council for a specific variation.

All such residential installations must only be carried out by Installers who have been appropriately accredited by the Technology Supplier to carry out such an installation.

Council will maintain a listing of these Accredited Installers and will organise with the property owner the installation of these units on the residential property, using such an Installer.

Where the installations occur as part of sewerage a particular area (and only at the time of that sewer construction program) or part of a new subdivision that has been designed specifically for being serviced by pressure sewerage then the property owner's costs in relation to these installations will be minimised. Actual costs to the property owner will be those such as upgrading their existing connections for the new system (where applicable) or the costs to connect to the pumping unit (where applicable) or any additional work specifically requested by the property owner.

Council will advise the resident of the specific costs involved in these instances. In all other applications the property owner will be required to meet the full costs of installing the pumping unit and property service line including the supply of those assets.

14. INSTALLATION OF THE PUMPING UNITS (NON-RESIDENTIAL)

Most non-residential installations will still have a standard connection and will be treated identically as for the residential applications. However, those non-residential applications that require a non-standard connection will need to demonstrate that the proposed unit has been designed by a specialist in pressure sewerage systems to meet the following requirements:

- The property loads likely to be generated.
- The likely impacts on the downstream (existing) collection system.

The unit should be based upon a pumping unit that falls within the range of products from Council's Technology Supplier. In these instances Council will endeavour to provide the unit under its supply contract where possible, after it has had time to get a response from its Technology Supplier. Council will not be held liable for any delays in achieving delivery of the unit by the Technology Supplier as it is a non-standard unit. If the requirements of the property design lie outside of the product range then the supply of the unit will be the responsibility of the property owner, but still subject to Council concurrence that it is able to maintain that unit.

The property owner will be responsible for the installation of these non-standard units and for meeting all of the costs involved. The only exceptions to that would be for a new subdivision that had been specifically designed for an industrial estate or where there is a dedicated sewerage backlog program. In those instances the property owner would pay either those costs over and above the Property Levy paid by the Developer applicable for that subdivision or what is advised to the property owner in the case of a backlog program.

All non standard units must be tested at flow rates similar to those of the proposed application to confirm the impacts of these connections on the downstream infrastructure is in accordance with the specialist design for that application. If the downstream infrastructure is found to be inadequate as a result of these tests, (over and beyond any allowances made in the specialised design), then these inadequacies will need to be rectified. This will need to occur before the unit can be

commissioned and be handed over to Council. These additional costs will also be met by the property owner.

15. TRADE WASTE APPLICATIONS

For non residential applications where the waste water being discharged is different in nature to domestic sewerage they will be required to obtain a trade waste license.

If it is deemed by Council officers that a particular trade waste discharge may be deleterious to the Council pressure sewerage or other downstream systems, then approval to the application will be refused.

16. HOME OWNER'S MANUAL

Council will ensure all property owner's receive a manual that guides them on what they need to do with their pressure sewerage pumping unit (particularly if the alarm were to activate) and what is expected of them. Council will also ensure that this manual is kept up to date, based on its experience with pressure sewerage over time.

17. MODIFICATIONS TO THE PRESSURE SEWERAGE SYSTEM OR HOUSEHOLD ADDITIONS

Building over the pressure sewerage system will not generally be allowed but if the property owner wishes to relocate the "on property" pipeline or the pumping unit, Council will permit such relocations subject to it being technically feasible as set out in the Pressure Sewerage Engineering Standards. The property owner will meet all costs of such a relocation, which will be organised by Council, with the costs advised to the owner before work commences.

A formal submission for any such modification must be made to Council before any such work is contemplated and Council will indicate if the modifications can proceed and the conditions applicable to those modifications. Council will take punitive action against any party that modifies their on property system without prior approval.

18. PRESSURE SEWERAGE COSTS TO THE INDIVIDUAL PROPERTY RESIDENT OR PROPERTY OWNER

Properties serviced by a pressure sewerage system will pay an annual sewerage rate that is set by Council as part of its annual fees and charges. All normal repairs and even the eventual replacement of the pumps will be covered by this annual rate.

Residents may be separately charged in relation to their pressure sewerage systems where their negligence has resulted in damage to the system and/ or additional costs to Council in the carrying out of its normal maintenance.

VARIATION

Council reserves the right to review, vary and/or revoke this Policy from time to time.