

Policy

Pressure Sewerage

2020

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Further Document Information and Relationships

Related Legislation	Local Government Act ; Local Government (General) Regulations 2021; Government Information (Public Access) (GIPA) Act 2009 and Schedule 1 of the GIPA Regulation 2009; Conveyancing Act 1919
Related Policies	Private Sewer Pump Station Policy
Related Standards, Procedures, Statements, documents	Byron Shire Council Sewerage System Home Owners Manual, 16 June 2004; Pressure Code of Australia Appendix A DM484233 – Home Owners Manual

Note: Any reference to Legislation will be updated in the Policy as required. See website <u>http://www.legislation.nsw.gov.au/</u> for current Acts, Regulations and Environmental Planning Instruments.



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1. Objectives

- 1.1 This policy provides a framework for the provision of pressure sewer systems within Byron Shire, where the use of such systems is justified.
- 1.2 In particular this policy details the responsibilities of Council, developers and individual property owners with respect to the construction, maintenance and operation of associated infrastructure and provides a basic guide to Council's expectations from such systems.

2. Policy Statement

Byron Shire Council will permit the installation of pressure sewerage systems to provide sewerage services where other forms of sewerage cannot be effectively or economically used, or where pressure systems have particular environmental, economic or social benefits. While pressure systems are an internationally recognised sewerage system, they are sufficiently different to conventional gravity reticulation systems to require a separate policy statement.

Note: This policy does not include gravity sewerage reticulation systems associated with private sewer pump stations.

3. Introduction

3.1 What are Pressure Sewerage Systems

A pressure sewerage system is a complete system where raw sewage is conveyed under pressure generated by pumping units located on each property to a nominated discharge point. The system comprises three components as described below:

- a) Pressure Sewer reticulation, which is a network of pressure mains (including pressure sewer laterals and property boundary assemblies) which transports sewage from properties to a nominated discharge point.
- b) "On Property" works, which includes a collection/pumping unit located on and draining individual properties, a Control/Alarm panel and associated electrical connections, and a property discharge line which connects the Collection/pumping unit(s) to the property boundary assembly, and
- c) Property Sanitary drains, which are pipelines installed by licensed plumbers which convey sewage from buildings to a connection point (also called house drains, house sewer or house service line).

3.2 Application of this Policy

This Policy applies to pressure sewerage systems as defined in Section 3.1. As a guide pressure sewerage will only be adopted where:

- a) It represents a significantly lower cost alternative than conventional gravity sewerage systems.
- b) It is being used to service isolated communities or clusters of properties that remain un-sewered.



c) In areas where there are environmental and/or physical constraints that require an alternative system.

Note: An individual pumping unit which pumps sewage to council's gravity reticulation sewer on the property is not classified as a pressure sewerage system and is covered by the Byron Shire Council *Private Sewage Pump Station Policy*.

3.3 Supporting Documentation

This policy is supported by the following documents which provide the "how to" detail in respect of pressure sewerage systems:

- a) A Technical Specification covering the supply and installation of the pressure sewerage systems in detail (Pressure Sewerage Code of Australia WSAA07-2007);
- b) A home owner's manual (see Appendix A DM Document #484233) to inform the resident of what they can and cannot do in relation to the pressure sewerage system on their property, as well as what to do if their system should fail.

Council will review these documents periodically and update them as required.

4. Use of pressure sewerage systems in Byron Shire

4.1 Where can Pressure Sewerage Systems be used in Byron Shire.

- a) As a general principle, pressure sewerage systems may be permitted either:
 - i) In sewerage catchments where Council has resolved that pressure sewerage is to be the method of providing sewerage collection; or
 - ii) Within developments where pressure sewerage is demonstrated to be a significantly lower overall life cycle cost option for Council than gravity sewerage.
- b) In taking into account whether pressure sewerage may be permitted, Council will consider the following issues:
 - i) Whether there are particular circumstances which makes the use of pressure sewerage preferred.
 - ii) Whether other means of sewerage reticulation are currently provided or proposed for the subject area. For example, without other justification pressure sewerage is unlikely to be supported in areas where gravity reticulation is already installed. Developers proposing to use pressure sewerage are advised to check with Council's Water and Recycling Services.
 - iii) Whether pressure sewerage is specified as the preferred reticulation proposed in a sewerage strategy or Environmental Impact Statement approved by Council for a particular area.
- c) Although pressure sewerage may, in some locations, have a lower construction cost, this will not necessarily mandate its use. Accordingly Developers proposing to use pressure sewerage will need to justify why Council should permit these systems in their particular application.



4.2 General Applications of Pressure Sewerage Systems

The most common applications for pressure sewerage in Byron Shire are likely to be:

- a) New subdivisions that can be more economically serviced with a pressure sewerage system than gravity sewerage systems;
- b) Low lying areas that would require gravity sewers below sea level or within water charged ground;
- Backlog sewerage areas where ground and/or topography conditions are more suited to a pressure sewerage system than gravity sewerage systems - A backlog area is defined as existing developed residential areas that do not currently have a reticulated sewerage system;
- d) For communities that are in close proximity to a sewered urban area but have not been serviced by reticulated sewerage system and/or site conditions are such that construction of gravity main sewerage system would compromise sensitive environmental areas (known as a Special Scheme);
- e) As an optional system where an existing gravity collection system requires replacement.

4.3 Ownership of the "On-Property" System

Conditions of connection to Council's pressure sewerage systems under Clause 18 (1) of the Local Government (General) Regulation 2021 are that:

- a) Ownership of "On Property" works, which include the following components (as defined in Pressure Code of Australia WSAA 07-2007) shall reside with Council as shown in Figure 1.
 - Collection/Pump unit
 - Property discharge line/s from the pump to the property boundary assembly
 - Control/Alarm panel
 - Property boundary assembly
 - Pump control/power cable
 - A one (1) metre stub of sanitary drain extending outside the pressure sewerage collection tank.



No resident/owner of the property is permitted to interfere with any unit described above or attempt to gain entry or attempt to conceal any unit.

b) Collection/pumping units shall be in accordance with the latest version of the Pressure Code of Australia.

Pressure sewerage systems do not have any resident serviceable parts, and under Section 635 of the Local Government Act it is an offence to wilfully or negligently remove, damage, destroy or interfere with a sewer system. Property owners should note that the property discharge line is also defined as part of the system.

In particular, property owners/residents should locate the property discharge line before commencing any excavation works which may damage the line. Council may attempt to recover costs for any wilful or negligent damage to a pressure sewerage system.

4.4 Requirements for "On Property" Rights

Easements will generally not be required over any part of the "on property" works, so as to enable property owners to subsequently relocate the *on property works* (normally the property discharge line) as required to accommodate future property modifications etc. However, **an easement will be required if** the property discharge line is required to pass through a neighbouring property.

4.5 Power for the Pumping Unit

a) Pumping units shall be connected to a property's switchboard as part of the "on property" installation, and a separate circuit shall be added to the property



switchboard so as not to interfere with the normal electrical operation of the house. However, while this installation will be undertaken as part of the "on property" works, the property owner will be responsible for any maintenance of the electrical cable between the control/alarm panel and the property switchboard.

b) The pumping unit will not be metered separately. Residents will meet the individual power costs as part of their own electricity bill.

4.6 Number of Pumps per Residential Property

- a) Generally, only a single pumping unit shall be permitted for each residential property. For multiple dwellings on the same property, a single unit (if of sufficient capacity) may be approved to serve more than one dwelling; however this unit may have more than one pump.
- b) However, Council may consider approving more than one pumping unit on a property if the general property layout or the layout of the different dwellings on the property requires more then one unit. In these cases, each pumping unit will attract a sewer assessment charge (under section 502 of the Local Government Act 1993). In backlog sewer schemes, Council will only provide one pumping unit per residential property, and the cost of any approved additional pumping units shall be borne by the property owner.

4.7 Non residential Properties

Where pressure sewerage systems are to be provided for non-residential properties such as schools, hotels, caravan parks, industrial etc, owners will need to satisfy the adequacy of any "on property" designs, including the adequacy of the property discharge lines. All pumping units shall be installed as per design plans and submitted and approved by Council.

4.8 Property owners required to connect to Pressure Sewerage

Once Council has formally determined that pressure sewerage systems are applicable to an area, all properties serviced by the system (and within 75m of a sewer of the council as per section 552 of the Local Government Act 1993) may be required to connect to Council's system by pressure sewerage.

4.9 Identifying that the property has a Pressure Sewerage System

- a) The property's drainage diagram and the Section 88B instrument will be marked to indicate that the property is served by a pressure sewerage system. This is specifically to allow any prospective land purchaser to discover prior to purchase that the property is serviced by a pressure sewerage unit.
- b) In addition to the drainage diagram a positive covenant reinforcing Council's right of access onto the property to service the units will also be required as a condition of consent for new subdivisions serviced by pressure sewerage.
- c) The property will be identified on Council's Geospatial Information System to indicate that the property is served by a pressure sewerage system. This information may be accessed by a request for information under sections 7, 8 and 18 of the Government

Information (Public Access) (GIPA) Act 2009 and Schedule 1 of the GIPA Regulation 2009.

4.10 Limited Technologies

Council will only support a limited number of different types of pressure sewerage technologies. This is to overcome the high costs of maintaining a wide range of different pumping units.

4.11 Maintaining the Overflow Relief Gully

- a) The property sanitary drain shall be connected to a controlled overflow mechanism such as an overflow relief gully trap. These will be identified as overflow relief gully traps on the property plan.
- b) Properties are not permitted, under any circumstances, to block any overflow relief gullies such that they are unable to perform their normal operation. Properties blocking overflow gully traps may be charged the full costs of damage and repairs to the pressurised sewerage system, both inside and outside the property.
- c) In flood prone areas special arrangements may be required in relation to overflow relief gully traps in order to prevent the intrusion of floodwater and damage to the system.

5. Special requirements for spas and swimming pools

While Pressure Sewerage Systems do not prohibit high discharge applications such as spas and swimming pools, appropriate provisions need to be made to accommodate these discharges.

5.1 Spas

- a) Sudden discharges from Spas could either trigger the pumping unit high level alarm or, in a worse case scenario, result in an overflow at the residential overflow relief gully. Council may therefore impose special requirements on properties which are proposing the installation of spas, which may include time delays on alarms, provision of a non-standard collection/pumping unit with additional storage in the collection tank or a buffering tank.
- b) Special requirements for spas will be determined on a case by case basis. Spa owners within pressure sewerage areas need to contact Council's Water and Recycling Services, who will advise on the correct way to discharge the spa into the collection tank. Formal approval under section 68 of the Local Government Act will also need to be given by Council to any agreed format of discharge and further approval will be required to vary this at any future stage.

5.2 Swimming pools

a) Council requires that any property owner within a pressure sewerage system area currently owning a swimming pool (or installing a swimming pool in the future)

regulate their pool backwash volumes and rates so as not to exceed the capacity of the pumping unit and to avoid alarms being generated. The same provisions shall apply to persons wanting to drain their swimming pools.

- b) There are a number of ways to drain or backwashing pools without causing an alarm, and in general these will be dealt with on a case by case basis. For any proposed pools, the agreed format of discharge will be covered by a condition of development consent for the dwelling or via a section 68 approval for a pool.
- c) For existing pools in backlog areas, a format of discharge will be agreed with the property owner as part of the "on property" installation works. Pool owners requiring further information should contact Council's Water and Recycling Services.

5.3 Cost of special modifications for spas and swimming pools

The costs for any additional equipment over and above the basic collection/pumping unit that is required to be installed to accommodate large sudden discharges from spas and/or swimming pools shall be met by the property owner. Owners proposing new spas or swimming pools are advised to make application to Council under section 68 of the Local Government Act 1993 for approval.

6. Operation and maintenance of pressure sewerage systems

Council's intent is that residents with pressure sewerage systems should not be required to carry out significantly more operational input than for other sewerage systems. The infrequent reporting of an alarm is not seen as a significant impost and is offset by other advantages offered by pressure sewerage.

Council will achieve these goals by:

- a) Being responsible for the maintenance and repair of the collection/pumping units, which will be funded through the annual sewerage charges.
- b) Providing a 24 hour emergency response line.
- c) Providing residents with a Home Owner's Manual to guide them in the operation of the pumping unit.

6.1 Normal Operation of the Collection/Pumping Unit

The collection/pumping units operate automatically and do not require any specific input from the resident. The collection tank is sized to provide sufficient storage to cater for power outages that might be experienced as part of normal operation. The resident Home Owners Manual sets out how the units operate and what resident should do if an alarm occurs.

6.2 Power Operation

Residents are not permitted to interfere with the electrical operation of the collection/pumping units. To facilitate this, Council requires the collection/pumping units to be wired into the household switchboard in such a manner so as not to interfere with the normal electrical operation of the property, nor be accessible by the residents.

6.3 Maintenance of the Pumping Unit

Council will maintain collection/pumping units within the system as part of its normal sewerage maintenance. As the "on-property" works are owned by Council, it is necessary for Council staff or agents to access properties for maintenance purposes. Section 191A of the Local Government Act, 1993, gives Council authority to enter private property to undertake maintenance of works on its sewerage systems:

For new properties, Council will require as a condition of consent that a positive covenant be placed on the property title to enforce the needs for:

- a) Council access to the collection/pumping unit, including suitable access to enable a new pump to be carried onto the site to replace the existing pump; and
- b) The resident's role as defined in the Home Owner's Manual (see Appendix A).

6.4 Home Owner's Manual

Council will supply a Home Owner's Manual (see Appendix A DM Document #484233) to all owners of properties where pressure systems are installed. The Manual will outline operation and maintenance requirements of the pumping units. The Manual will include:

- a) Details on the operation of pressure sewerage systems including appropriate contact numbers and/or web site details for further enquires.
- b) Emergency contact phone number.
- c) What to do if the alarm sounds.
- d) What to do in the case of a power failure.
- e) What to do if going on holidays.
- f) How to minimise waste generation in the case of emergencies.
- g) How to install and operate swimming pools, spas etc in pressure sewerage areas, and detail requirements for design and installation of any new pools or spas.
- h) What can be safely discharged into the sewerage system?

7. Modifications to on-property works

7.1 Relocating Collection/Pumping Units and Property Discharge Lines

- a) If a property owner wishes to relocate the "on property" pipelines or the collection/pumping unit, Council may allow such relocations subject to section 68 application to and subsequent approval from Council. The following matters will be required to be considered:
 - i) The hydraulics on the property allowing the unit to be moved.
 - ii) All of the associated costs with the relocation being met by the owner.
 - iii) The works being undertaken only by Council or their nominees.
 - iv) Any other technical requirements as specified in the latest edition of the Pressure Sewer Code of Australia.
- b) Any relocation of the pumping unit or property discharge line shall be at the property owner's expense. Property owners proposing to relocate the pumping unit or the property discharge line are required to make application to Council under section 68 of the Local Government Act.
- c) Full details of the as constructed works (Work as Executed information, dates of construction etc) shall be provided to Council, including a modified property layout drawing showing the new location of the delivery line and unit, and the Homeowner's Manual updated.
- d) Residents interfering with delivery lines or pumping units without Council's approval may be subject to action under Section 635 of the Local Government Act 1993. This is in addition to meeting any costs arising from the loss of warranty on that pumping unit, and/or damage to that unit and/or, any costs associated with such unauthorised works.

8. New developments/subdivisions

The following section indicates Council's general conditions which will apply to provision of pressure sewerage in new developments.

8.1 General requirements

Where specifically requested at the Development Application stage, Council will assess whether a pressure sewerage system would be applicable and approved for a particular development. Specific conditions may be applied in the development consent. Such conditions would in general terms require the Developer (but not necessarily be limited) to:

- a) Meet all costs associated with the design and construction of the pressure sewer reticulation system, including any changes required to the existing sewerage system.
- b) Design, supply and install, at their own cost, "on-property" works. "On property" works may only be commenced after the issue of a construction certificate for building

works on each allotment, and shall be completed prior to the issue of the occupation certificate for the building works.

- c) The "on property" works, while subject to point (b) above, shall be completed prior to the issue of the linen plan for a subdivision certificate. Council may accept either a bond for the developer to undertake these works, or payment of the rate set out in Council's fees and charges for Council to undertake this work on behalf of the developer.
- d) Council may utilise the bond to install the "on property" works in order to enable the issue of an occupation certificate for the related building works.
- e) Payment of applicable Sewerage Developer Contribution.
- f) Place an instrument on the title of the property under Part 6 Division 4 of the Conveyancing Act 1919 advising that the property has a pressure sewer system and that properties are required to follow the Home Owners Manual.
- g) Landowners (of the individual subdivided lots) are to make an application to Council with submission of a development application for a dwelling for installation of the collection tanks.
- h) Provide to Council "work as executed drawings" in a format acceptable to Council
- i) Provide Council with all "on property" designs where these occurred during the development phase.

8.2 Collection/Pumping Units

- a) As outlined in Section 4.3, a condition of connection to Council's pressure sewerage system is that collection/pumping units installed within the system shall be compatible with the Technical Specification covering the supply and installation of the pressure sewerage pumping units (WSAA 07).
- b) Council's annual fees and charges contain a charge for Council to undertake supply and installation of "on property" works in accordance with Section 9.2. For developers choosing to use this service, as part of the charge Council will supply the developer with property boundary assemblies.

8.3 Pressure Sewerage Reticulation Construction

- a) The Developer will be required to undertake the following works during the construction phase:
 - i) Construction of the pressure sewerage reticulation lines including all lines and laterals, valves, flushing points and a property boundary assembly for each property. This will include flushing of the lines. It will also include the provision to Council of "work as executed" information/drawings.
 - ii) Construct any changes to Council's existing reticulation system which are required by the development.



- iii) Construction of a rising main from the new subdivision into Council's reticulation system. This includes the provision to Council of "work as executed" information/drawings.
- iv) Demonstrate to Council that the valves provided are as recommended by the pressure sewerage supplier.
- v) Formally hand over the reticulation mains to Council for maintenance of the lines. Also provide Council with a 12-month defects liability period for the pipelines.
- b) Council may be prepared to undertake construction of pressure sewerage systems at commercial rates.

8.4 "On-Property" Works

- a) Developers will be responsible for the installation of all "On-Property works". Installation of on-property works will not be permitted prior to the issue of a construction certificate for building works on the property because:
 - i) The location of buildings will influence the location of the pumping unit, and
 - ii) The warranty on the pumping units commences when the unit is installed.
- b) There is a need to avoid damage to the collection/pumping unit as a result of construction activities as well as ensuring that the property sanitary drains are clean before connecting the pumping unit to these lines.

8.4.1 Requirements

- a) Developers installing units on properties (in lieu of paying a fee to Council for future installation) will be required to undertake the following works:
 - i) The developer shall purchase, supply and store for use all pumping units for "on property" installation;
 - ii) Installation of the pumping units on each property, including a formal household design, installation of the unit and delivery line from the property boundary assembly to the pumping unit, installation of a one (1) metre stub of sanitary drain and provision of a set information package for Council;
 - iii) Fully test the units and certify they are fully operational. Replace any units that fail during the warranty period;
 - iv) Fully test the reticulation design as per the latest edition of the WSAA Pressure Sewer Code (WSA-07); and
 - vi) Formally have the pumping units commissioned, handing over the commissioning certificates to Council as well as the warranties for the pumps, which will have been transferred into Council's name.
- b) Installation and testing of units and service lines shall be completed prior to issue of an occupation certificate for building works. Principal Certifying Authorities should note that sewerage works may not be commissioned or used until they have been



inspected and certified by Council, or a person authorised by Council to undertake such inspection and certification, in accordance with Section 21(a)(i) of the Local Government (General) Regulation 2021.

c) Where a Developer wishes to engage a third party to undertake on property works on their behalf, an appropriate bond will be required as a guarantee that the works will occur.

8.4.2 Connection of Sanitary Drains

The property owner shall be responsible for engaging a plumber to connect the property sanitary drain to the one metre stub extending from the collection tank.

9. Pressure sewerage in Council schemes

9.1 Design and Construction of Pressure Sewerage Reticulation

Council will itself or engage contractors to undertake design and construction of pressure sewerage reticulation in backlog areas or special schemes.

9.2 "On Property" Works

- a) For all properties Council will undertake, as part of the Council funded works, design and installation of all "On-Property" works to be owned by Council, as defined in Section 4.3, for a single collection/pumping unit on each property. This will include provision of a collection/pumping unit to non-residential properties in accordance with the requirements of Section 4.7.
- b) The Council funded works shall include electrical works as outlined in Section 4.3 of this policy. If the general property layout or the layout of the different dwellings on a property requires more then one collection/pumping unit then the cost of any addition works shall be borne by the property owner.
- c) Council will to liaise with property owners regarding the on property works. As part of this liaison, Council or its Contractor will be required to undertake a full audit of all existing property switch boards and hydraulic connections. If the audit shows the need for these connection points to be upgraded to meet current standards, then Council will advise property owners in writing of the required works.
- d) If a switchboard does not meet current standards for the proposed upgrading works, then the licenced electrician has a legal requirement to notify property owners to correct the deficiency. The property owner shall be responsible for the costs of any such upgrading work required, and may either have any necessary upgrading works undertaken by Council's Contractor or engage their own tradespeople to carry out this work, providing it can be undertaken in a timely manner.

9.3 Household Sanitary Drains

Property owners will be responsible for the connection of household sanitary drains to the one meter stub extending from the pressure sewer unit.

9.4 Vacant Lots

Following completion of the pressure sewerage system construction contract, for existing vacant lots within the backlog area catchment Council will install all "On- property" works for a single collection/pumping unit at no expense to the property owner.

9.5 Spare Pumps

Council will maintain a quantity of replacement pumps and other spare components for emergency maintenance purposes. No resident should be without their service for a period that will unduly affect the amenity of their property.

10. Home Owners Manual

- 10.1 Council will monitor and keep up to date the home owner manual (Appendix A DM Document #484233) so that residents who lose the manual can obtain another copy from Council. Residents will be able to purchase additional copies of this manual at any time.
- 10.2 Council will maintain an abbreviated version of the home owners manual (see Appendix A Quick Guide) so that a copy can be given out by real estate agents to persons renting a property or on taking up holiday occupants.

11. Definitions and Glossary

Actual Pump Head	This is the actual static head plus the frictional losses that the pump has to meet in discharging the collection tank's contents. The final or actual pump head is determined from field measurement, to confirm previous design calculations of the pump head.
Alarm Volume	This is the volume that is stored in the on-property collection tank, before the collection tank alarm activities.
As constructed drawings	see work as executed drawings
Backlog Area	existing residential areas that do not currently have a centralised (or reticulated) sewerage system
Boundary kit	see Property Boundary Assembly
Collection/Pump unit	a collection tank and associated pumping equipment including grinder pump, level switches, pipework and valves



Collection/Pump unit supplier	a company that supplies collection/pump units, technology (primarily Grinder pumps) and knowledge and guarantees the performance of the individual items within the collection/pumping unit
Collection Tank	that part of a collection/pump unit which collects and stores flows from sanitary drains
Construction Contractor	This is the company/ individuals responsible for constructing the off property works, such as the reticulation system and the property boundary assemblies. This company/ individuals might also be the Installer.
Control/Alarm Panel	The power and control panel which controls operation of the Grinder pump and which contains audible and visual alarm components. The panel also contains a dedicated circuit breaker for power disconnection.
Council	This term should be interpreted to mean Byron Shire Council and its successors.
D&C	Design and Construction Tender/Contract
Designer	This is the individual responsible for the design of either the pressure sewerage reticulation system or the on-property works (or both).
Emergency Volume	This is the volume which is stored in the pressure sewerage collection tank from just above the alarm activation level to just before the overflow relief gully begins to discharge.
Flushing Point	This is a formal point in the reticulation to which a large supply of water can be connected under pressure to flush out the reticulation pipelines, or alternatively to remove sewage from the reticulation system.
Grinder Pump	a mechanical device designed to pump liquid and in the process reduce the size of solids contained in the sewage
High Level Alarm	This is both an audio and visual alarm system activated when the level of the sewage in the on-property pressure sewer collection tank reaches the alarm volume level.
Home Owners Manual	a manual informing resident of what they can and cannot do in relation to the pressure sewerage system on their property, as well as what to do if their system should fail.



Installer	This is the company/ individual responsible for carrying out all of the on-property works. Council will only permit accredited installers to undertake works.
Low Pressure Sewerage Scheme	This is a different name also often used to describe pressure sewerage schemes.
On-property Works	These are the total works undertaken on a property, including any excavation, installation, compaction and restoration associated with the Collection/Pump unit, Property discharge line/s, Control/Alarm panel, Property boundary assembly, Pump control/power cable and a one (1) metre stub of gravity sanitary drain extending outside the pressure sewerage collection tank.
Overflow Relief Gully	This is a control overflow device to prevent overflows occurring inside the dwellings on the property, by ensuring that as such overflows occur outside of the dwelling. Its arrangements and dimensions are contained in the NSW Plumbing Code.
Pressure Sewerage Lateral	This is the continuation of the property discharge line from the property boundary assembly to the reticulation system pipeline and includes any road crossings (where applicable).
Pressure Sewerage Reticulation System	the series of pipelines laid in the streets connecting the properties to either a treatment plant or some designated discharge point in an existing sewerage system, and includes the property boundary assemblies.
Pressure Sewerage Systems	This is a specialist system wherein all of the property sewage is connected to an on-property pumping station (or series of pumping steps). This dedicated pumping unit incorporates a grinder to reduce solids in the sewage to watery slurry. The pumping station then discharges through small diameter pipelines laid minimum depth. Council's pressure main reticulation systems rely on the pressure generated by all the "on property" pumps in the system to move sewage from the pumping unit to the treatment plant or the set discharge point in a gravity reticulation network.
Pressure Zone	This is a collection of properties that are capable of being isolated from upstream and downstream areas during the construction phase and are clearly marked as such on the reticulation drawings. The zones are used to allow one area to become operational whilst the upstream areas are still being constructed.



Property Boundary Assembly	This is a valve box at the property boundary incorporating an isolating valve, flow directional valve and an inspection tee piece.
Property Diagram	A drawings showing the "on property" works.
Property Discharge Line	The pipeline that connects the on-property pumping station to the property boundary assembly.
Pumping Units (or Station)	this includes the pumps, collection tank, alarm system, pump pressure switches, etc and is installed on the property.
Sanitary Drains	pipelines installed by licenced plumbers which convey sewage from buildings to a connection point (also called house drains, house sewer or house service line).
Special Scheme	pipelines installed by licenced plumbers which convey sewage from buildings to a connection point (also called house drains, house sewer or house service line).
Work as Executed (WAE) Drawings	These are the Work as Executed or as constructed Drawings.



APPENDIX A

HOME OWNERS MANUAL

Source: #DM484233

PRESSURE SEWERAGE SYSTEM QUICK GUIDE

Emergency Contact Numbers

For repairs to your sewerage system Byron Shire Council should be contacted on:

- Breakdown After Hours (02) 6622 7022
- Breakdown during Business Hours (02) 6626 7000

You should advise the operator that a mechanical tradesperson is required to attend.

What to do if the Alarm Sounds

If the pumping unit alarm sounds you should take the following steps:

1. Turn off the audible alarm by pressing the button on the underside of the alarm panel. This audible alarm will continue until manually muted or the condition is rectified.

The flashing light cannot be turned off. It will turn off when a fault is repaired and the pumping unit is functioning correctly.

Contact Byron Shire Council and report the alarm has been activated. Tell the operator that a mechanical tradesperson is required.

If, however, the alarm sounds immediately after a power failure or blackout, wait for one hour before calling Byron Shire Council. The alarm could sound when the power is restored simply due to the fact that the sewage has built up to a high level whilst there has been no pumping during the blackout.

It is wise to be careful with wastewater generation during blackouts.

If it appears that a power outage will be longer than eight hours, where necessary, Byron Shire Council may organise to manually pump out the units.

2. Take steps to minimise wastewater generation when the alarm is on (or during a blackout)



- Keep showers relatively brief.
- After taking a bath, leaving the plug in or bucket out the water onto the lawn.
- Switch off any drainage (automated or not) from swimming pools and spa's
- Practice good water savings techniques such as not leaving taps running.
- Do not use washing machines. Alternatively, you could bucket the water from the tub onto the lawn as a short term measure.
- Do not use automated dishwashers

Minimising wastewater generation does not mean you cannot use the system. Toilets can still be flushed and normal cooking can proceed.

General Note: Water conservation measures, in terms of reducing what is poured down the sink and flushed down the toilet, will have the added benefit of reducing your power costs associated with the operation of your low pressure pump unit. <u>Less water use =</u> <u>reduced pumping = \$\$ saving</u>

EXAMPLE

SWIMMING POOL OWNERS

PLEASE NOTE

Before you can connect your swimming pool backwash system to the new pressure sewerage system, you are required to provide and connect a pool backwash balance tank.

The minimum volume of the tank shall be 1000 litres. Existing pools within the relevant area have been supplied with these balance tanks.

Council's Compliance & Approvals Staff will inspect the balance tank installation when inspecting the household connection to the pumping unit and collection tank.