Guidelines for Pressure Sewer

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GUIDELINES FOR PRESSURE SEWER

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1. **PURPOSE**

The purpose of this document is to provide guidelines for the selection and implementation of a Pressure Sewer System, to service residential, commercial/industrial properties and public/community facilities within the Corporation’s supply region.

2. **DEFINITIONS**

- **PSS** Pressure Sewer System
  
  This refers to the pressure sewer system as a whole, including the Pressure Sewer Unit, all related plumbing and electrical units – Including SCADA.

- **PSU** Pressure Sewer Unit
  
  This refers to the actual pump unit and storage tank.

- **GVW** Goulburn Valley Region Water Corporation (the Corporation)

- **Reticulation Infrastructure**
  
  Components of the PSS external to the property, including:
  - Pressure sewer lateral;
  - Pressure sewer pipeline (reticulation);
  - Tapping or connection point
  - Air valve and scour assemblies;
  - Outfall connection to gravity sewer.

- **On-Property Assets**
  
  Components of the PSS on the property, including:
  - Pump unit and associated electrics (PSU);
  - Property discharge line;
  - Boundary Valve Kit;
  - Telemetry connection (optional).

(Refer to Figures 1 and 2 following)

- **Serviced Property**
  
  A property located within Goulburn Valley Water’s sewer districts, fronted by a corporation main and the payment of relevant new customer contribution and or pressure fees have been received by the corporation.

- **SCADA (Supervisory Control and Data Acquisition)**
  
  Goulburn Valley Waters remote infrastructure monitoring system.
LEGEND

1. **Property Discharge Line**
   This pipe, which connects the pumping unit to the boundary valve kit, is the responsibility of the property owner to pay for and have installed by a licenced plumber in accordance with AS3500 and the Victorian Plumbing Regulations. Upon compliance of the PSS this pipe will become the responsibility of GVW to maintain.

2. **Boundary Valve Kit**
   Ensures that wastewater which is already in the pressure sewer cannot re-enter the property and in addition enables maintenance staff to isolate individual properties from the system in the event of an emergency.

3. **Pumping Unit & Collection Tank (PSU)**
   This includes a small pump, storage tank and level monitors which are all installed underground so that only the top of the storage tank (or lid) is visible.

   If required, a pressure sensor may also be fitted to the discharge pipeline and linked to the control panel to help control the operation of the pump.

   Whilst it will be site specific, GVW would prefer for the pump unit to be located at the front of properties for ease of future access for maintenance and repair.

4. **Pump Control Panel**
This is a small box which is ideally mounted to the wall of the house containing all the electrical controls for the pumping unit including both the audible and visual alarm systems.

Capacity is to be provided for the installation (now or in future) of telemetry and pressure sensors. This may require the installation of a suitable antenna.

5. Property Service Drain

This is the drainage pipework connecting the discharge from the dwelling to the pump system. It is the responsibility of the property owner to install and maintain this pipework up to the capped Inspection Opening (I/O) in accordance with AS3500 and the Victorian Plumbing Regulations 1996.

3. BACKGROUND

Conventional gravity sewers continue to be GVW’s preferred option to service properties however, GVW will consider pressure sewer subject to remote location or site constraints on an individual basis and may be subject to a triple bottom line assessment.

A PSS consists of pump assemblies located on individual properties, which discharge sewage into a network of pressure reticulation sewers.

A PSS may be used in a variety of circumstances. However, PSS’s tend to be the most cost effective in areas with any of the following characteristics:

- Small isolated existing subdivisions;
- Low-density development remote from gravity sewer reticulation;
• Hilly or difficult terrain, resulting in small catchments;
• Isolated areas with no natural fall
• Environmentally sensitive areas where the conditions may not favour septic tanks; and
• Regions with poor soil conditions and/or high water tables making the construction of deep gravity sewers, difficult, dangerous and costly.

The adoption of the PSS will provide an alternative to septic tanks if the area cannot be sewered by traditional gravity reticulation and sewage pump stations.

Whilst it will be site specific, GVW would prefer for the pump unit to be located at the front of each property within 5 meters of the Boundary Valve kit for ease of future access for maintenance and repair. The pumping unit should be installed clear of any trafficable areas such as backyard access.

4. SELECTION CRITERIA

In the selection of a PSS to service an area the following criteria should be considered:
• The financial, social and environmental impact must be considered at a community and Corporation level and the analysis must clearly demonstrate a “whole-of-life” benefit for a PSS. Factors to be assessed include:
  o The total cost to the developer of providing the pressure sewer system compared with the cost of installing a conventional gravity sewer system;
  o Advantages of providing sewerage services against alternatives such as septic tank systems, including environmental and public health considerations; and
  o The net present cost to the community of the options of providing conventional gravity sewerage (including a GVW standard sewage pump station) and pressure sewer, including construction and maintenance costs.
• The catchment must be clearly defined and the PSS capable of servicing the whole of the defined catchment;
• Selection of a PSS must not limit the ability of servicing upstream catchments.

5. OWNERSHIP OF PSS INFRASTRUCTURE

5.1 Corporation

The Corporation will assume ownership of the entire system infrastructure downstream of and including the collection/pump unit and associated electrics as shown in Figures 1 and 2. (The collection/pump assembly includes the capped I/O).

5.2 Property Owner

Ownership of the gravity property-drain between the dwelling and I/O at the collection/pump unit will rest with the property owner.
6. OPERATIONAL ARRANGEMENTS

6.1 Terms and Conditions

The Corporation will adopt Section 145 of the Water Act to apply service conditions to a development requiring a pressure sewer system and the future connection of the properties within that development. Therefore, individual property owner agreements, easements or Section 173 (Planning and Environment Act 1996) or 17(2)C agreements (Subdivision Act 1988) are not required.

In order to incorporate the relevant Terms and Conditions, there must be a formal provision of a notice pursuant to Section 145 of the Water Act 1989. The process for applying for each individual lot to be connected to sewer with a pressure sewer system is:

- The relevant landowner is to apply to GVW for consent to connect to the sewer system using pressure sewer pursuant to Section 145 of the Water Act 1989; and
- GVW, in turn, provides a notice under Section 145 of the Water Act 1989 to the property owner with the Corporation’s terms and conditions included.

The Corporation’s terms and conditions for servicing with PSS are to be provided to all property owners with the information statement for the property and will also be available from the Corporation’s webpage. The Corporation’s terms and conditions will include:

- An outline of the responsibilities of both the property owner and Corporation in relation to the operation and maintenance of the on-property assets upstream of the property connection assembly;
- Defining what is expected of each party, the nature of the maintenance arrangements that have been entered into and how access will be gained to the on-property assets; and
- Specifying each party’s responsibilities with respect to annual costs, as outlined later in these guidelines.

The Corporation’s principles for the terms and conditions include:

- The landowner permits GVW to enter the property to maintain the system as required;
- The owner accepts the installation of the assets on the property including the mounting of control panel and the connection of the pump system to property’s power supply; and
- The owner is responsible for protecting the pump system and for any damage caused by the discharge of inappropriate wastes into the pump system.

6.2 Your Pressure Sewer System – An owners manual

The owners Manual will support the terms and conditions included with the notice pursuant to Section 145 of the Water Act 1989.

*The owners Manual, standard drawings along with the principles and guidelines for pressure sewer systems will also be available on the GVW webpage.*

6.3 Customer Charter

The Corporation’s customer charter also applies to the terms and conditions of servicing a property with pressure sewer.
In the event of any inconsistency between any of the above documents, the terms and conditions shall prevail.

It has been confirmed by the Essential Services Commission that the Corporation can introduce a new charge, such as a works charge for the future installation of Pressure Sewer Units, within a regulatory period.

6.4 Connection to Pressure Sewer Checklist

Upon installation completion, the PSS is required to undergo an audit by the corporations Asset Project Delivery Team prior to commissioning. Please see appendix 3 for an example Audit Form/Connection to Pressure sewer Checklist with requirements.

7. INSTALLATION OF RETICULATION INFRASTRUCTURE

7.1 New Developments

For new developments, the installation of all reticulation infrastructures, beyond the property boundary, shall be arranged by the developer, under the terms of the Corporation’s Developer Construct Agreement.

Under the terms of the agreement, the developer shall engage an accredited consultant to prepare a feasibility report for the project and undertake the design, documentation and project management of the installation of the works by an accredited contractor.

All costs associated with the installation of this PSS infrastructure, will be the responsibility of the developer inclusive of:

- Supply to site and Installation of pumping unit inclusive of required trenching and excavation works
- Electrical connection to mains power including Electrical Safety Certificate
- Concrete ballast
- All required conduits and mechanical protection.

Please be aware that Goulburn Valley Water do not contribute to the trenching works for the property service drain or property discharge line or the supply or installation of these lines.

An allowance of 10m only will be made for electrical connections and related works between the PSU and the power supply. Any greater distance will be at the property owners cost.

7.1.1 New Customer Contributions

In addition to the installation costs, the developer shall pay the New Customer Contribution charge, applicable at the time, in respect of all newly created allotments.

7.1.2 Future Installation of Pressure Sewer Units

For GVW to consider lots in a proposed subdivision to “be serviced for sewerage” and consent to compliance being issued a charge must be collected from the developer which recovers the costs of installing the pressure sewer pumping units at some time in the future.

These contributions will be held by GVW until the customers are ready to connect – at which time a GVW Nominated supplier to install the pumping unit would be engaged by the owner. GVW will
refund costs to the owner once all requirements are satisfied. Please refer to the “Guidelines for Pressure Sewer” for details on requirements for Installation of On-Property Assets. (See Installation of On-Property Assets).

The value of the development charge will be dependent upon the then current cost of installation of the on-property assets and the number of properties within the development to be serviced by the PSS.

An allowance of 30% is to be included to cover GVW overheads for internal administration costs to administer the installation process and minor fluctuations associated with procurement of the pumps.

An estimate of the costs of supplying and installing a typical unit within the lots for the subdivision is to be provided in the feasibility report by the consultant to enable GVW to determine the contribution amount for the development to cover costs of future installation.

7.1.3 Intervening Properties
Where reticulation infrastructure, installed by the developer, fronts properties outside the development that could benefit from the works, the owners of those properties will not be under an obligation to contribute to the cost of the works but shall be entitled to connect to the works (at their cost) in due course.

The developer is encouraged however to negotiate with intervening landowners to seek their cooperation in contributing to the cost of the works.

7.2 Existing Developed Properties
If a PSS is to be implemented to service a single or group of existing developed properties, the reticulation infrastructure installation arrangements shall be the same as those for a new development under a Developer Construct Agreement between the Corporation and the property owner(s).

The complete cost of installation of the works will be the responsibility of the individual property owner, in the case of a single property, or by the group of property owners, by mutual agreement, in the case of a group of properties.

A New Customer Contribution charge will be applicable to each property to be serviced by the PSS, but payment of the charge, by each individual property owner, will be deferred until each property connects to the system.

For any intervening properties likely to benefit from the works, the same arrangements as for new developments apply and they are not required to contribute to the costs of the rising main.

Also as with new developments, the instigator of the works is encouraged to negotiate with intervening landowners to seek their cooperation in contributing to the cost of the works.

7.3 Odour Control
All feasibility reports submitted are to address the generation of odour from the pressure sewer system and provide approved engineering solutions, at the developer’s expense, to mitigate any odours. This may also include a contribution to the ongoing maintenance of these systems.
To assist with odour control, the preferred discharge point for a pressure sewer main is to be directly into the wet well of an existing sewage pump station or at the discretion of the corporation.

7.4 Alignment of Pressure Sewer Mains
Pressure sewer mains are to be located in road reserves or public land only – the sewer reticulation main cannot be constructed through private land. The only pipe allowed through private land is the property service line within the property being “sewered”.

8. INSTALLATION OF ON-PROPERTY ASSETS

The installation of all on-property assets shall be the responsibility of the property owner.

8.1 Properties in New Developments
For newly developed properties, the status of the provision of sewer to the property at the time of application for each property to connect is:

- The developer has installed the pressure sewer pipeline that fronts the property including the boundary valve kit and it is connected to the GVW sewer reticulation system;
- The developer has paid both the New Customer Contribution and the contribution to GVW for the future installation of the pressure sewer unit on the property by the owner;
- The property is regarded as a serviced property by GVW and as such the property will attract a service availability charge for sewer services.

- GVW’s information statement provided for the sale of the property to a prospective owner will have indicated that the property is to be serviced by a pressure sewer system when connected to the sewer in the future; and
- The status of the property connection should be identified on the Corporation’s customer relationship database and GIS systems as being a vacant lot, pressure sewer terms and conditions applying, with the status of charges previously paid for New Customer Contribution and development charges.

To arrange for the installation of the pressure sewer unit and connection to the Corporation’s sewer reticulation system the following is required:

- The property owner is to apply to GVW for connection to sewer with a pressure sewer system pursuant to Section 145 of the Water Act 1989;
- The property owner shall arrange for one quote for the installation of the pressure unit to the Corporation’s standard by a contractor (including a licensed, experienced plumber and a qualified electrician) not inclusive of the property discharge line, this is to be installed at the property owners’ cost;
- Goulburn Valley Water will additionally seek a comparative quote for comparison.
- The property owner provides GVW with a copy of their quote and design plan for the installation of the pressure sewer unit by a licenced, experienced plumber;
- The selected plumber/installer takes out a Plumbing Industry Commission (PIC) consent number for the installation of the property drains for the property and provides a
preliminary design plan showing the proposed location of the dwelling (serviced structure), pump unit, control panel and discharge pipeline.

Upon GVW accepting a quote for installation the Corporation will approve connection to the sewer to proceed.

The property owner is responsible for the installation of the property drain between the dwelling and the PSS collection pump assembly and the property discharge line from the PSS collection pump assembly and the Boundary Valve Kit which is to be installed by a licensed plumber in accordance with AS3500 and the Corporation’s requirements.

The property owner is responsible for the supply and installation of PSU related electrical works that exceed the provided for 10m in length.

To finalise the connection of the property to sewer and arrange payment to the pressure sewer contractor the following is to be provided to GVW:

- Invoice for the final costs for the installation of the pressure sewer system within the property; and
- An as constructed drainage plan showing the location of all internal drains, pump unit, control panel, discharge line and property boundary kit. This is to include the provision of tie distances, depths, off set distances, structure outlines, property boundaries, etc., to enable location of all pipework and fixtures in the future.

Upon receipt of this information, GVW will in turn:

- Request an audit of the site by the corporation’s contractor,
- Issue a notice under Section 145 of the Water Act 1989 to the property owner which includes the Corporation's terms and conditions for connecting to sewer with pressure sewer; and
- Arrange payment to the contractor and approve connection of the property.

The isolation valve in the boundary connection kit must not be opened until this process is finalised.

8.2 Existing Serviced Properties

For existing developed properties, the property owner shall arrange the installation of the on-property PSS assets, at the cost of the property owner.

The property owner is required to apply to GVW for connection to sewer with a pressure sewer system pursuant to Section 145 of the Water Act 1989.

The installation of the on-property PSS assets shall be performed by a contractor (including a licensed plumber and a qualified electrician) that has current installation accreditation with GVW’s nominated supplier.

As there would not have been any previous contribution to the cost of installation of on-property assets by a developer, the Corporation will not contribute to the cost of the on-property works.
The Corporation requires the submission of a preliminary design plan showing the proposed location of the dwelling (serviced structure), pump unit, control panel and discharge pipeline with the request for connection to sewer. This is to be reviewed and endorsed prior to GVW approving a connection to sewer with a pressure sewer system.

The Corporation will, in turn, issue the property owner a notice under Section 145 of the Water Act 1989 which includes the Corporation’s terms and conditions for connecting to sewer with a pressure sewer system.

The property owner will also be responsible for the installation of the property drain between the dwelling and the PSS collection pump assembly and the property discharge line from the PSS collection pump assembly and the Boundary Valve Kit which are to be installed by a licensed plumber in accordance with AS3500 and the Corporation’s requirements. Requirements include the submission of a drainage plan detailing all the property drains, the location of the PSS and the discharge pipeline to the property boundary.

9. **OPERATION AND MAINTENANCE COST ARRANGEMENTS**

9.1 **General Operation and Maintenance**

General operation and maintenance costs associated with the PSS will be borne by the Corporation.

As stated in GVW’s terms and conditions the property owner is responsible for the cost of supplying power and maintenance of the property's electrical system to sufficiently operate the pump.

The Corporation will levy sewerage service fees and sewage disposal charges on PSS customers in the same manner as customers connected to a gravity sewer system.

9.2 **Damage to On-Property Assets**

The property owner will reimburse the Corporation for the full cost incurred by it in repairing damage to PSS assets installed on the property, caused by the property owner or people other than the Corporation or its agents acting on its behalf.

10. **SHARING OF ON-PROPERTY ASSETS**

All residential and commercial properties shall have separate on-property assets upstream of the property boundary box. The Corporation will not allow the sharing of on-property assets for residential and commercial properties.

The Corporation however, will consider the sharing of pump units for unit type developments. The ownership, loadings, subdivision easements, reserves, etc., need to be included in the feasibility report provided for the proposal.

11. **RELOCATION OF ON-PROPERTY PSS ASSETS**

A property owner must obtain the written approval of the Corporation before any PSS assets are relocated and GVW consents to the issuing of a PIC number. This will require the submission of a preliminary design plan showing the proposed relocation works required, including dwelling (serviced structure), pump unit, control panel and discharge pipeline.
The Corporation will not contribute financially to the cost of any relocation.

The relocation is to be completed by a contractor (including a licensed plumber and a qualified electrician) that has current installation accreditation with GVW’s nominated supplier, in accordance with the installation instructions.

An as constructed drainage plan showing the location of all internal drains, pump unit, control panel, discharge line and property boundary kit is to be provided by the plumber at the completion of the works. This is to include the provision of tie distances, depths, off set distances, structure outlines, property boundaries, etc., to enable location of all pipework and fixtures in the future.

12. CHANGE OF OWNERSHIP

The Corporation will indicate in any Information Statement for a property connected to a PSS:

- That the property is serviced by a PSS;
- That Special Conditions of Connection apply to the property, including the Owner’s responsibility for on-going power costs;
- That these terms and conditions will bind any subsequent owner of the property; and
- Where more information about the respective rights and responsibilities of the property owner and of the Corporation can be found.

13. PSS INFRASTRUCTURE COMPONENTS

A PSS consists of reticulation network infrastructure and on-property assets as described in the GVW preferred equipment list.

The main features of the design and construction of these systems include:

13.1 Reticulation Network

The reticulation network has the following components:

- Pressure reticulation mains comprising PN16 PE100 HDPE pipe to provide a completely sealed network.

  The pipe shall be installed with a cream coloured detectable marker tape, in accordance with the WSAA code. The tape shall be laid immediately above the pipe embedment for open trench construction and taped to the pipe at 2-metre intervals for trenchless construction.

- Isolation valve, air valve and flushing point assemblies to manage the operation and maintenance of the network.

- Marker posts shall be installed at all valve and flushing point assemblies and at all changes of direction of the reticulation main.

- The sewer reticulation main cannot be constructed through private land. The only pipe allowed through private land is the property service line within the property being “sewered”.

The pipe shall be installed with a cream coloured detectable marker tape, in accordance with the WSAA code. The tape shall be laid immediately above the pipe embedment for open trench construction and taped to the pipe at 2-metre intervals for trenchless construction.
13.2  On-Property Assets

Gravity Property Drain

A gravity property-drain from the dwelling/building to upstream of the pump assembly.

The drain shall comply with AS3500 and the Victorian Plumbing Regulations and have a flexible connection to the upstream side of the pump assembly, in accordance with the pump supplier’s recommendations, and an inspection shaft.

Installation and maintenance of this pipe is that of the property owner.

Submersible Pump Assembly

A pump assembly, comprising one or more submersible pumps (depending on the requirements of the property) housed in a moulded polyethylene pit.

Whilst it will be site specific, GVW would prefer for the pump unit to be located at the front of each property for ease of future access for maintenance and repair.

The pump(s) shall be fitted with appropriate disconnection and lifting facilities, so removal of the pump(s) shall be possible without the need for confined space entry.

The pump and system components available for use are defined in the GVW preferred equipment list. In general the pump assembly shall be:

- Fitted with an alarm system, which is activated by a high-level alarm switch and which provides both visual and audible warning to the property owner;
- Fitted with a pressure switch to stop the pump operation when the downstream pressure head exceeds 50 metres;
- Wired from a separate RCD circuit breaker on the property switchboard with all wiring complying with AS 3000; and
- The control panel is to provide option for the future installation of telemetry to enable communication with the GVW SCADA system. This may require an aerial to be fitted to the control panel or the side/roof of the building.

Pump Assembly Sizing

- For a standard residential property with a mean daily discharge of <700 litres, a single progressing cavity grinder-pump unit, which has operating parameters between 0.4 litres/sec @ 50 metre head and 0.8 litres/sec @ 10 metre head, housed in a 1,100-litre pit, is considered appropriate.
- For a residential dwelling with high-water usage fixtures such as a spa bath and swimming pool backwash, a 1,500-litre pit should be considered.
- For commercial/industrial and public/community facilities, the mean daily discharge must be assessed and the pump capacity and pit volume selected accordingly.
- If the daily discharge is significantly greater than 700 litres, a larger capacity pump, which has operating parameters between 1.0 litres/sec @ 50-metre head and 1.8 litres/sec @ 10-metre head, housed in the larger 1,600-litre pit, is considered appropriate.
Pump Selection
The pump system must be what is listed in the GVW preferred equipment list (2 stage centrifugal grinder pump).

Pressure Sensors
Pressure sensors are required to be installed on the pump unit when the pressure main discharges into a sewer rising main or large pressures are generated by some pump units in the system (eg. servicing elevated lots). This will enable the pump unit/s to be set to not run against the sewage pump station upstream or when there are excessive pressures in the pressure sewer pipelines.

SCADA
Properties will be required to provide telemetry to enable transmission of alarms to the Corporation’s SCADA system when:

- The total discharge of the property is equivalent or greater than three equivalent tenements;
- The property is located adjacent to an environmentally sensitive area where overflows may cause significant environmental damage (eg. sensitive water source immediately downstream from property).

Further, for public/community facilities that may be located relatively remotely and/or infrequently occupied, consideration in conjunction with the Corporation will be given to the option of alarming the pump station through connection to GVW’s SCADA system.

Connection to the GVW SCADA system needs to be considered when selecting the site for the pump station to ensure that alarms and signals can be relayed to the GVW SCADA system.

Flowmeters
For discharges greater than 5 equivalent tenements for one allotment GVW requires an electromagnetic flowmeter to be installed on the discharge pipework which is to also be connected to the SCADA system. This will enable remote monitoring of discharge and automation of alarms to detect pump failures and possibly failures in the discharge pressure pipe system.

Magflow Flowmeters are required to be installed on the discharge from all commercial and large residential developments. They are also to be installed on the discharge from a long rising main (greater than 1 km) into a sewage pump station or authority nominated discharge point. This would comprise a small diameter magnetic flowmeter located in a pit.

Please refer to the Corporations Preferred Equipment List and Design Guidelines for requirements regarding flowmeters.

Location of PSU
The installing licenced plumber is to determine the optimum position for the location of the PSU in consultation with GVW. Factors to be included in the positioning are:

- Whilst it will be site specific, GVW would prefer for the pump unit to be located at the front of each property for ease of future access for maintenance and repair;
• The pump is to be positioned to be close to the property drain from the residence/serviced building;
• Pump to be adjacent to power supply meter box to allow simple connection;
• The pump is adjacent to a fence or structure to allow mounting of the vents and control box; and

The pump should be located so that it is free of vehicular traffic and in a landscaped area.

It is important to keep in mind that the electrical allowance paid by GVW for the supply and installation of PSU related work is limited to 10m, if the preferred location of the PSU exceeds the allowed 10m any additional costs to supply and install this is borne by the property owner.

Property Discharge Line

The discharge pipe from the pump unit to the boundary valve kit shall be appropriately sized PN16 PE 100 HDPE pipe, installed with a cream coloured detectable marker tape, in accordance with Clause 18.10 of WSA 07-2007-1.1.

No easements are required over this pipeline but the owner is to provide a clear and direct alignment for the discharge pipeline to connect to the PSS rising main.

The property discharge line is to be installed at the property owners cost in accordance with AS3500 and the Victorian Plumbing Regulations, Once the system has been deemed complaint this will become the maintenance responsibility of GVW.

Boundary Valve Kit

A Boundary Valve Kit creates the interface between the on-property assets and the reticulation network.

The assembly includes an appropriately sized PVC ball valve and an appropriately sized PVC check valve housed within a below-ground polypropylene pit. An appropriately sized PVC flushing tee is optional to enable flushing of the discharge line.

14. REFERENCES

The following documents were used as references during the compilation of this document:
• Pressure Sewerage Code of Australia WSA 07-2007-1.1
  www.wsaa.asn.au/NationalCodes/Pages/NationalCodesList.aspx
• Goulburn Valley Water - Customer Charter
• Goulburn Valley Water’s Developer Construct Agreement
• “Your Pressure Sewer System – An Owner’s Manual”, Yarra Valley Water

These documents are available for download from the relevant organisation’s web page.
15. APPENDICES

1. GVW Preferred Equipment list


2. Using your Pressure Sewer System – An owners manual

3.
**GUIDELINES FOR PRESSURE SEWER**

Connection to Pressure Sewer Checklist

**Record Details**

<table>
<thead>
<tr>
<th>Record Number</th>
<th>Container Number</th>
</tr>
</thead>
</table>

**Property Details**

- Property Owner(s): [ ]
- Property Address: [ ]
- Phone Number: [ ]
- Mobile: [ ]

**PESS Technical Requirements**

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Applicable</th>
<th>Satisfied</th>
<th>Confirmation By</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCADA</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flow Meter</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pressure Switch</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Odour Control</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flushing Unit</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control Timer</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Pump Serial Number**: [ ]

**Pressure Sewer System Process**

- Certificate of Electrical Safety supplied?: [ ] Yes [ ] No
- Compliance Number: [ ]

**Approved Plumber**

- Name: [ ]
- Company: [ ]
- POC Number: [ ]
- Licence Number: [ ]

**Connection Details**

- Property Audited by Goulburn Valley Water: [ ] Yes [ ] No
- Date: [ ]
- DP Number: [ ]
- Auditor: [ ]

- Property Connected: [ ] Yes [ ] No
- Compliance Notice Issued: [ ] Yes [ ] No
- Aquarate Updated: [ ] Yes [ ] No
- Date: [ ]

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**Uncontrolled document when printed**

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**Checklist**

1. The unit is installed in a non-trafficable location

2. The unit is installed 1.5 metres clear of all buildings/dwellings

3. The pump well is located a minimum of 3.0 metres clear of all openings into buildings/dwellings

4. The pump well is a minimum of 3.5 metres clear to the centre from any LPG gas cylinders

5. The pump control panel is within 1.0 metre clear radius of any natural gas meter

6. The control panel is positioned where it is not subject to damage, is accessible and the lock is keyed to CLO01

7. The pump control panel is located a minimum of 600mm above finished surface level

8. The pump control cables above ground are protected by a mechanical cover

9. All cable penetrations into control panel are sealed to protect internals from gases, insects, moisture etc.

10. A separate circuit breaker is installed in house meter box sized in accordance with the Aquatec Installation Manual

11. The underside of lid is a minimum 50mm above finished surface level

12. *(If applicable)* A separate vent is installed when the lid is sealed for flood prone areas

13. Incoming gravity sewer connection to tank has an inspection shaft complete with inspection Shaft cover

14. The pump chamber has no sand, gravel, building material, litter or any other foreign material inside tank

15. All tank penetrations are sealed to prevent any leakages of hazardous gases escaping

16. The pump has stainless steel lifting chain and has been lifted?

17. The isolation valve in the tank is left in the open position

18. The lid has been fastened down correctly with vandal-proof screws

19. The boundary connection kit is installed in a horizontal position and located into its correct position

20. Isolation valve is left open and non-return valve is installed the correct way up in boundary connection kit

**Comments: (if any)**