Cavendish Onsite Wastewater Management Audit Program

Project Report

March-April 2017

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Executive Summary

In 2013 Southern Grampians Shire Council (SGSC) made a commitment to the 2014/15 and 2015/16 budgets to conduct onsite wastewater system audits across five (5) of the most densely populated, un-sewered, towns within the municipality. In doing so Branxholme was selected to initiate the project and consultants Australian Water Environments (AWE) were engaged to prepare a feasibility study of the options available for managing domestic wastewater within the township. The commitment to audit onsite wastewater management systems across the townships of Southern Grampians Shire Council has extended to 2016/17. Cavendish is the fifth township to be audited and follows Branxholme (2012-13), Hiller Lane Hamilton (2013-14), Penshurst (2014-15) and Glenthompson (2015-16).

Cavendish is a small township located approximately 25km north of the Shire's municipal business centre of Hamilton. Cavendish has a population of 374 people and has a total of 164 private dwellings, all serviced by domestic onsite wastewater systems (Australian Bureau of Statistics, 2011). There are three main drivers for the instigation of this project that have been identified by Council in conjunction with residents:

1. Council and residents recognise that future growth in Cavendish will depend on a better understanding of the infrastructure required to sustain growth within the township.

2. Council and residents have identified that current onsite wastewater management conditions within Cavendish may be substandard, and that existing onsite wastewater management systems may be aging and prone to failure. This understanding presents an increased public health and environmental risk to the community in the immediate future.

3. The community of Cavendish has recognised that the re-zoning of land to encourage growth is a high priority item in the medium to long term (Southern Grampians Shire Council, 2014) and it is acknowledged that the growth of the township is hinged upon viable onsite wastewater disposal options within the township.

This project involved an assessment of the existing onsite wastewater management issues within the township of Cavendish with the intention of seeking potential approaches that may be implemented to address the current and impending issues across the study area.

The methodology of this study has been underpinned by previous experience in the assessment and identification of issues in the townships of Branxholme, Penshurst and Glenthompson, and is guided by relevant legislation and policy in conjunction with a thorough analysis of the natural and built heritage of the region, physical characteristics (i.e. topography, soil and catchment hydrology), stakeholder engagement sessions and knowledge of existing wastewater systems within Cavendish. Based on the learnings from previous assessments in similar townships, the utilisation of local staff to assist in the program has proved to be a valuable resource.

In the past five (5) years there has been minimal reported growth, with no prediction for further increase in the coming years. It is understood that any future development would be underpinned by suitability for onsite wastewater management within the previously subdivided allotments. The study identifies the importance of support from water corporations, communities and state and local government to identify and develop affordable solutions as a feasible alternative to the traditional gravity sewer, which cannot be justified in un-sewered small townships with a low rate of population growth.

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1. Introduction

1.1 Background

SGSC has a number of un-sewered townships where onsite domestic wastewater management systems are used to treat and dispose of domestic wastewater. The larger towns of Hamilton, Dunkeld and Coleraine are provided with a reticulated sewer by the regional water authority, Wannon Water. There are small areas on the outskirts of the major towns which are also not connected to reticulated sewerage systems.

Onsite systems are an acceptable method of dealing with wastewater if the effluent is contained on-site and disposed of effectively and safely. However if effluent is discharged from a property it can pollute soil, waterways or groundwater and create risk to the environment, public health and amenity. Council's Environmental Health department receives occasional reports and complaints of odour and grey water, or effluent discharging from properties, causing a nuisance and potentially a human health and environmental hazard.

Onsite systems require routine maintenance to remove accumulated solids in the tank and prevent sludge damaging effluent trenches. Systems have an expected lifespan of 25-30 years, after which the trenches are likely to require re-construction. Many systems in Cavendish are believed to be 40-60 years old, and have reached the sunset of their expected life. Furthermore, wastewater management system design standards have improved over time to address wastewater quality and the potential impacts of improperly treated and disposed wastewater on human health.

The *2006 Domestic Wastewater Management Plan* identified extensive issues across the Shire but did not specify individual properties; therefore an audit is required in each township to identify what interventions should be implemented. Additionally, an inquiry into the Environment Protection Authority (EPA) in Victoria has recently concluded in 2016. In response to this, SGSC seeks to gather supporting data in relation to the importance of the EPA in wastewater management and public health issues associated with sub-standard systems.

Septic tank systems require an area of land to effectively dispose of effluent, the size of which is dependent on topography, rainfall, soil type, depth of soil horizons, distance from waterways, flood frequency, wind and sun exposure and also on the amount of wastewater generated. Typically a minimum allotment size of 2200m^2 (0.22 hectare) is needed. In Cavendish there are a number of allotments, both developed and undeveloped, below the 2200m^2 implied threshold and this potentially hampers the subdivision and development of the town (SGSC 2017).

1.2 Timeline

01 January 2017 – 15 March 2017
Planning and Project Preparation

15 March 2017
Community Meeting – Pre Audit Information Session

21 March 2017 – 06 April 2017
Onsite Wastewater Audit Inspections

07 April 2017 - Ongoing
Follow up audit inspections and data collation.

19 April 2017
Inspection result letters mailed to residents/property owners

17 May 2017
Community Findings Meeting

1.3 Study Area

The study area was determined based on SGSC Planning Scheme Township Zone designation (Southern Grampians Shire Council, 2014). The area of study contains the specified township zone, bound by Duncans Road to the North, Dwyer and Wills Streets to the East, Chirnside Street to the South and Henty Highway to the West. The properties of community interest such as public toilets, Cavendish Recreation Reserve and the Cavendish Soldier Memorial Hall were all encompassed within the designated township zone and were assessed in this audit program.

Figure 1: Designated Cavendish Study Area

2. Review of Literature

2.1 Victorian Legislation

2.1.1 Environment Protection Act 1970

This legislation confers responsibility to Council for approving the installation and alteration of wastewater disposal systems that generate 5000 litres of wastewater or less per day (via permits under s.53M).

Wastewater systems that are capable of treating over 5000 litres of wastewater per day are required under this legislation to be licensed by the Environment Protection Authority.

Provisions relevant to the role of local government include:

- Council may refuse the application if the site is unsuitable, the area available for the treatment or disposal of effluent is insufficient, the system is not of a type approved by the EPA or does not comply with the relevant State Environment Protection Policies (SEPP) or if the system does not treat all sewage.

- Property owners are required to operate and maintain the systems in accordance with the permits and EPA licence requirements.

- Council is required to lodge an annual return with the EPA outlining the number of permits issued and the number of systems disconnected, inspected and operating.

The legislation confers powers to Council's Environmental Health Officers to enter any property to investigate failing septic systems with permits and the duty to serve notices requiring the repair of failing or defective systems. The property owner is responsible for undertaking corrective action.

In terms of broader environmental protection and public health issues that may relate to the management of wastewater systems, relevant provisions of the legislation are:

- ***Section 38*** requires that any 'discharge or deposit of waste into waters' must be in accordance with the declared state environment protection policy (SEPP) or waste management policy, which includes the *SEPP Waters of Victoria 2003.*

- ***Section 39*** sets down the requirements that no person shall pollute any waters so that the condition of the waters are made:

    - noxious or poisonous;

    - harmful or potentially harmful to the health, welfare, safety or property of human beings;

- poisonous, harmful or potentially harmful to animals, birds, wildlife, fish or other aquatic life;

- poisonous, harmful or potentially harmful to plants or other vegetation;

- detrimental to any beneficial use made of those waters.

Section 39 also states that any person shall not cause or permit waste to be placed or left in any position whereby it could reasonably be expected to gain access to any waters and result in those waters being polluted.

2.1.2 State Environment Protection Policies (SEPP) Waters of Victoria Policy 2003 (as amended)*

This policy deals with the protection of waterways. Clause 32 details the requirements for managing domestic wastewater, including the requirements that council:

- Assess the suitability of land that is proposed for development for its capacity to absorb wastewater on-site. This may require completion of a land capability assessment.

- Ensure that wastewater systems installed in unsewered areas are consistent with EPA guidelines and the Septic Tank Code of Practice 2016.

- Identify properties in unsewered areas that are discharging off-site or contaminating groundwater.

- Develop wastewater management plans to address problems relating to wastewater disposal and ensure the proper design and management of future systems.

- Ensure that land that cannot absorb wastewater on-site is either not developed or, if developed, is connected to a sewerage system.

With respect to the review into the SEPP (WoV) policy, Southern Grampians Shire Council provided feedback to this process in July 2015 advocating the importance of wastewater management in the policy. The key focus of Council's feedback into this review was to advocate for the consideration of viable alternatives to the reticulated sewage system, traditionally utilised within the district.to support growth of small townships such as Cavendish, along with improvement of public health outcomes resulting from mitigation of onsite wastewater management concerns on small allotments.

The feedback to the SEPP (WoV) review was echoed by Council in the review of the Water for Victoria discussion paper in April 2016. Additionally focus was placed on the importance of support to water corporations, communities and state and local government to identify and develop affordable solutions as a feasible alternative to the traditional gravity sewer, which cannot be justified in un-sewered small townships with a low rate of population growth.

*Please note this policy is currently under review at the time of writing

2.1.3 Local Government Act 1989

This legislation enables Councils to enact local laws and set special charges for Council activities. Council may use these powers to raise revenue for its wastewater management programs and to develop local regulations for wastewater management, as long as these regulations are consistent with state policy and legislation.

2.1.4 Water Act 1989

The legislation regulates the water industry and describes the powers and responsibilities of water and sewage authorities. The legislation contains the following provisions relating to the options considered in this report:

- Within their sewer districts, sewer authorities may inspect and require property owners to repair or maintain their septic tank systems. If owners fail to undertake these works, authorities can undertake the work and recover costs from the property owners;

- Within their sewer districts and following the adoption of a by-law, authorities are able to require regular maintenance of septic tanks, and the payment of fees by property owners for works carried out by the authorities on their septic tank systems, prohibit septic tank discharge and impose penalties for breaches of the legislation.

- The legislation also confers power to the authority to force connections to the sewer (where available) and to recover the costs of repair of failing septic tank systems in their municipality.

2.1.5 Planning and Environment Act 1987 - Direction No 6 Rural Residential Development (October 1997 Guidelines)

This planning direction provides guidelines for planning authorities, including councils, which prepare amendments to allow rural residential development where the lots are larger than standard residential lots (usually at least 0.4ha). With respect to domestic wastewater management, the document indicates that the amendment can only proceed if the land has been:

- The subject of a land capability assessment, the results of which have been submitted to the EPA and the EPA has subsequently confirmed that the land will comply with the SEPP (Waters of Victoria).

- Found to have satisfactory physical characteristics for on-site sewage disposal or can connect to the sewer.

2.1.6 Southern Grampians Shire Council Planning Scheme

The Council's Planning Scheme outlines the permit and application requirements and decision guidelines for the rezoning and subdivision of land and the approval requirements for the construction of dwellings. With respect to domestic wastewater disposal and subdivisions/re zonings, the Scheme provides as follows:

- Permits are required for new subdivisions and proposed re zonings.

- For land zoned or proposed to be rezoned residential, all allotments must be serviced by sewer.

- For land or proposed to be rezoned township and low density residential, allotments must be serviced by sewer or be capable of treating wastewater on-site. Permit applications must include a land capability assessment. A minimum lot size is not specified for the township zone; however, 0.4ha is specified for the low density residential zone.

- In areas zoned low density residential, permits to build are required for a second dwelling on any lot and/or for lots that have planning overlays that require a permit.

2.1.7 Building Regulations 2006

Regulation 801 requires the issue of a 'report and consent' by Council before a permit is issued for any development that will involve the installation or alteration of a septic tank system. The report from Council indicates whether the block is suitable for development from a wastewater management perspective.

Regulation 1003 requires the issue of 'a report and consent' by Council prior to a certificate of occupancy being provided for any building development in an unsewered area where a septic tank system has been installed. The report from Council indicates that the septic tank system has been approved and is suitable for use.

2.1.8 Public Health and Wellbeing Act 2008

Section 60 of this legislation requires Council to remedy, as far as reasonable, all nuisances (i.e. activities that are dangerous to health or offensive), which exist in the municipality.

2.1.9 Code of Practice – Onsite Wastewater Management 891.4 (2016)

This code describes the measures that should be taken to ensure that domestic wastewater is treated and disposed of in a manner that minimises health and environmental risks, including for:

- The consideration of on-site wastewater management with the land development process.

- Designing, installing, operating and maintaining on-site wastewater treatment systems.

Guidance provided in the code in relation to;

- The selection, approval, management and maintenance of onsite wastewater management systems which treat up to 5000 litres (L) of wastewater per day.

- Systems which treat up to 5000 litres (L) per day of grey water to a quality fit for toilet flushing and cold water supply to clothes washing machines and/or land application.

- Existing offsite discharges of wastewater to a water way or storm water drain to be eliminated to improve the health and quality of waterways and neighbourhood amenity. Where existing offsite discharge of wastewater due to site restrictions, the new wastewater system must improve environmental public health outcomes.

- Land capability assessment procedures and wastewater flow calculations for designing effluent recycling and disposal systems.

The code states that the feasibility of providing a reticulated sewerage system should be seriously considered for the development of individual lots and for subdivision proposals that would result in allotments smaller than 10,000 m^2 (one hectare). The code specifies that this area should not be seen as a minimum lot size but as a risk threshold for lots smaller than 10,000 m^2.

The upgrade of existing onsite wastewater systems to meet 'best environmental outcomes' is detailed in the code and provides allowance for Council to approve upgrades of existing systems on small allotments whereby the requirements of the code cannot be met. In particular this section refers to the situation whereby a system of current standards could not be located on existing small allotments due to size constraints.

2.1.10 Code of Practice - Small Wastewater Treatment Plants 1997 (EPA)

This Code provides design and operational guidelines for treatment plants that serve less than 500 people.

Performance objectives

Small wastewater treatment plants should be designed, constructed and managed to achieve the following environmental performance objectives:

- Any discharges to surface waters are to meet all statutory requirements;

- Measures employed to deal with emergencies are to be without damage to any surface waters or to the soil/land;

- All wastewater is to be treated and retained on land wherever practicable and environmentally beneficial; and

- Measures employed should conserve water resources or provide for the re-use or recycling of treated wastewater.

Where a discharge to surface waters is the only option available, effluent quality must satisfy the principles set out in *Managing Sewage Discharges to Inland Waters* (EPA Publication 473) and requirements of *SEPP (Waters of Victoria)*. Where no quantitative nutrient objectives are specified in the SEPP, the discharge must not cause the nutrient levels in the receiving stream to

exceed those specified in *Preliminary Nutrient Guidelines for Inland Streams* (EPA Publication 478).

2.1.11 Guidelines for Aerated On-site Wastewater Treatment Systems 2002

These guidelines outline the design criteria, construction requirements and performance objectives that Aerated Wastewater Treatment systems must achieve to gain approval for use in domestic and small commercial situations. The document provides information on approval procedures, systems design, test criteria and renewal of application.

2.1.12 Australian Standards

Onsite treatment systems and associated disposal/recycling systems must be designed, installed and operated in accordance with the following Australian Standards. If there is any inconsistency between the Australian Standards and relevant codes of practice, the latter takes precedence.

- AS/NZS 1546.1, On-site domestic wastewater treatment units – Part 1: Septic tanks
- AS/NZS 1546.2, On-site domestic wastewater treatment units – Part 2: Waterless composting toilets
- AS/NZS 1546.3, On-site domestic wastewater treatment units – Part 3: Aerated wastewater treatment systems
- AS/NZS 1546.4, Greywater Treatment Systems
- AS/NZS 4130: Polyethylene (PE) pipes for pressure applications
- AS/NZS 1319: Safety signs for the occupational environment.
- AS/NZS 3500 [set]: Plumbing and drainage.
- AS/NZS 1547: On-site domestic wastewater management

2.1.13 Southern Grampians Shire Council Geographical Information

The SGSC Geographical Information System (GIS), Intramaps, was utilised to provide a preliminary assessment of the allotment sizing within the study area. Using the parameters set by Council, mapping was generated to provide information about the potential capability of the land to withhold onsite wastewater treatment per allotment.

Figure 2 Land Capability Estimation by Lot Size (units are square metres)

2.1.14 Southern Grampians Shire Council Plan

The SGSC '*Council Plan 2013-2017'* identifies a number of key strategic objectives to be aligned with the work of the Council over the effective period of the plan. In order to implement the assessment of onsite wastewater management the project must align with the objectives of the plan in a manner that will meet the strategic objectives of Council.

The five key objectives of the Council Plan identify a requirement for leadership and good governance, fostering of population and economic growth, enhancement of wellbeing and culture, assisting communities to feel dynamic and resilient and a requirement to manage environmental security. In terms of a proposal to assess wastewater management in Cavendish there are multiple links to the Council Plan objectives that drive the need for such a project to be undertaken. The links in detail are:

Objective 1: Leadership and Good Governance

Outcome 1.1 - Soundly Based Decisions

Strategy 1.1.1 – *Base decisions on the highest available level of professional advice and expertise*

Outcome 1.2 - Sound Working Relationships and Strong Advocacy

Strategy 1.2.4 – *Engage well with our communities on the issues important to their quality of life, health and wellbeing*

Summary: Council has an obligation to make soundly based decisions determined by a strong advocacy in the community. The assessment of onsite wastewater management systems in Cavendish seeks to identify the need for further strategic decisions to be made based on evidence into the future.

Objective 2: Foster Population and Economic Growth

Outcome 2.2 – Identifying and Preparing for Growth

Strategy 2.2.1 – *Implement the Planning Scheme Policy and strategies to ensure the orderly and sustainable development of the Shire*

Summary: An in depth knowledge of the condition and locations of onsite wastewater management systems within the municipality allows Council to determine the most restrictive aspect of population and economic growth in terms of availability of land for onsite disposal of effluent waste. The economic growth of Cavendish is hinged on the capability of the existing land holdings to maintain all effluent onsite in order to meet the legislative requirements of the disposal.

Objective 4: Help Communities Feel Dynamic and Resilient

Outcome 4.1 – Maintaining Community Safety

Strategy 4.1.3 – *Managing the regulatory environment to protect amenity and safety.*

Outcome 4.2 – A Dynamic Community

Strategy 4.2.3 – *Providing the information and assistance the supports community empowerment.*

Summary: The inspection program seeks to provide the community with the tools and advice required to maintain the amenity and safety of the people in a manner conducive to empowerment of the community. The theoretical reasoning is that Council shall provide advice on the ways homeowners may wish to monitor and maintain their systems to ensure that the suitability and function of the systems is maintained long term.

2.1.15 Southern Grampians Shire Council – Environmental Health Service Plan

The Environmental Health Service Planning document compiled by SGSC identifies a number of key Environmental Health services to be provided by the department across daily activities. The three key activities to be undertaken in the area are all closely linked to the parameters of the Cavendish Onsite

Wastewater Management audit program and are key driving factors in the commencement of the program. The three key focus services areas are:

- Promotion of behaviour change to reduce exposure to public health risk through food safety, health, amenity and environmental education and programs.

- Administration of public health, amenity and environmental protection policies plans guidelines, legislation and Local Law.

- Participation in the development and implementation of public health and environmental protection management, strategic plans, policies and procedures.

These points of focus are achieved through the assessment, management and participation in monitoring of the onsite wastewater management systems in Cavendish.

2.1.16 Southern Grampians Shire Council – Sustainability Strategy 2010-2020

Similarly to the Environmental Health Service Plan, the SGSC Sustainability Strategy identifies a number of key objectives to be achieved within the duration of the strategy. A driving objective of the strategy is the consideration to sewage and greywater management within SGSC. The four sub-objectives of this are;

- Council to develop a Sewerage Strategy for townships and Hamilton.

- Council to continue to provide information about grey water best practice management to all Shire residents.

- Conduct feasibility studies for towns with no reticulated water supply or reticulated sewerage.

- Review and update the Domestic Wastewater Management Plan.

The implementation of this program addresses the issues identified in the strategy and seeks to provide support to the actions taken leading into 2020 and the sunset of this strategy.

2.1.17 Cavendish Community Plan

In 2014 the community of Cavendish, in consultation with SGSC, developed a community plan detailing the priorities of the town moving forward. A key component of this plan is the community drive to '*increase the economic and social development of Cavendish in order to continue to be a vibrant and*

sustainable community' (Southern Grampians Shire Council, 2014). It must be recognised that to meet this goal, through the re-zoning of land and like projects, the treatment and disposal of wastewater within the township must be addressed in an open manner.

2.2 Other Projects

2.2.1 Small Towns Water Quality Program

In July 2011 the Department of Sustainability and Environment in Victoria announced the fourth round of the Victorian Small Towns Water Quality Fund.

This fund was designed to assist in driving projects which identify solutions to provide improved water supply services and sewerage management for small towns (CareerSpot, 2011) and was available to water corporations and local governments to develop solutions to wastewater management issues in small towns.

This fund was ceased with a change of government and SGSC did not receive funding from this initiative, however the initial availability of potential funding was a driving factor in the implementation of wastewater auditing programs within the municipality. As a result of the cessation, government information was removed from web sources with the amalgamation of Department of Sustainability and Environment (DSE) and Department of Environment and Primary Industries (DEPI).

3. Methods

3.1 Stakeholder Engagement - Community

Engagement of stakeholders, including residents and business operators, was conducted prior to the commencement of the program to ensure that the residents were informed and aware of the intention to assess all onsite wastewater management systems in Cavendish. The format of this engagement was in written format, via information letters (Appendix 2), and a community engagement meeting on 15th March 2017, one week prior to commencement of the program.

3.1.1 Community Information Session

An opportunity was provided for residents to meet with Council's Environmental Health Department at a community information session to discuss any issues or ideas. This was held on Wednesday 15th March 2017 at the Cavendish Soldier Memorial Hall. Appendix A3 illustrates the presentation provided to residents on the evening.

A number of residents attended this engagement session and provided a plethora of feedback relating to the perceptions of the community, particularly in relation to the upgrade to aerated wastewater treatment systems across the town.

The discussion generally indicated there is a concern for the health of the environment and how wastewater management may have an influence on it. There was an acceptance by many that wastewater needs to be well managed, and, if left untreated, may be detrimental to the environment.

3.2 Stakeholder Engagement – Agencies

The following agencies were contacted to discuss the objectives of Council's plans to assess the current wastewater systems across all small townships, and wastewater management in small and un-sewered communities generally. The following feedback has influenced the feasibility of wastewater management solutions for Cavendish and other small towns across the municipality:

3.2.1 Department of Environment, Land, Water and Planning

- Current funding opportunities through DELWP have expired, and there are no sources of funding available in the short term;

- The recently funded Department of Sustainability and Environment project – Better Practice in Domestic Wastewater Management – was successful, with outcomes through its case studies that should provide valuable strategies for regional councils and Water Authorities for management of wastewater; and

- Future funding and assistance may be available for wastewater upgrades where the potential for environmental harm or elevated risk to public health is identified.

3.2.2 Wannon Water

Wannon Water is the regional water authority for the area including Cavendish and carries responsibility for reticulated sewage treatment and maintenance. Despite the scope of the project falling outside the authority of Wannon Water, input was sought regarding the potential for impact on the organisation.

Issues for Wannon Water include the cost to sewer small communities and network extensions that involve only a few houses, and pipework to cover long distances or where access or inadequate gradients are constraints;

- Wannon Water is responsible for water and wastewater infrastructure for any off site collection system; and

- Wannon Water understands the difficulty that small communities have, and is therefore willing to consider a range of options for wastewater management including alternative systems.

Resulting from the assessment of other small towns in the municipality, such as Penshurst and Branxholme, Southern Grampians Shire Council wrote to Managing Director of Wannon Water, Mr Andrew Jeffers, on October 23rd 2015 in support of reducing the impact in unsewered areas by providing sewerage management solutions (centralised or decentralised) in Water Plan 4 (post-2018) that unlock development potential in the townships and address environmental and public health concerns.

3.2.3 Environment Protection Authority

The EPA referred Council to published legislation and regulations and stated that it is not their role to provide policy guidance. The 2015 public inquiry into the EPA sought to identify the areas of improvement required to ensure the authority can protect public health whilst protecting the environment for future generations.

In June 2016 changes to the approval process for onsite domestic wastewater management systems were implemented by EPA. These changes led to the current requirements whereby treatment system brands and models must be certified by an accredited conformity assessment body (CAB) as conforming to the relevant AS. This accreditation is given by JAS-ANZ (the Joint Accreditation System of Australia and New Zealand). As part of a permit application to a council, applicants must include a copy of the certificate of conformity from a CAB.

3.2.4 Glenelg Hopkins Catchment Management Authority

The Glenelg Hopkins CMA was consulted in relation to their role in monitoring the health of inland waterways. Their stated position is that, with respect to water resource management, they provide a supportive and advisory role to council and stakeholders, but are not in a position to provide financial support for such a program in terms of the waterway management within the area. However, they do wish to partner in future water management initiatives.

3.3 Audit Program

Following Council amalgamation in 1993 the township of Cavendish was transferred from the Shire of Dundas to Southern Grampians Shire Council. During this time the transfer of information pertaining to the installation and maintenance of systems in the area was incomplete and so failed to ensure that all relevant data was maintained in Council's record system, hence this auditing program sought to identify the location and manner of wastewater disposal infrastructure within the township. As a result the auditing program sought to ensure that each system was logged and plans filed to assist in future Council projects in the area.

Commencing 21 March 2017, SGSC appointed Environmental Health Officer, Aaron Kennett and allocated one local, outdoor staff member to assist with the assessment of 85 designated properties within the township zone of Cavendish. The audit program resulted in the assessment of 69 of the 85 identified properties. This occurred as a result of attrition whereby a percentage of the properties within the study area were unable to be accessed and/or assessed during the set period of the program. In many cases follow-up contact with the owners of these properties shall occur to capture the data at a later date.

Utilising a pre-determined assessment criteria and inspection sheet (Appendix A4), officers attended each property over a three week period extending to 06 April 2017, completing a thorough assessment of each onsite wastewater management system for a specified criteria including;

- Tank condition
- Effluent line condition
- Pump operation (if applicable)
- Sludge depth
- EPA Code of Practice compliance
- Plumbing compliance

At the conclusion of each assessment the owner of the property is to be issued with a letter from Council specifying the compliance of the system on their land. These letters also specify the requirements and recommendations made by Council to ensure the ongoing effectiveness of the system.

4. Outcome

Over the period of the study a total of 69 systems were assessed according to the guideline assessment protocol developed by Council (Appendix A4). A proportion of systems within the study zone were unable to be assessed for a variety of reasons, including access and availability of property owners.

At the commencement of the project, Council expected a high number of non-conformances to be identified as a direct result of monitoring and compliance having not occurred in the past. With respect to this expectation the results of the audit were, whilst similar to the hypothesis, generally pleasing given the majority (85% or 57) of systems within the township of Cavendish were compliant or require/d minor maintenance to conform to regulatory standards.

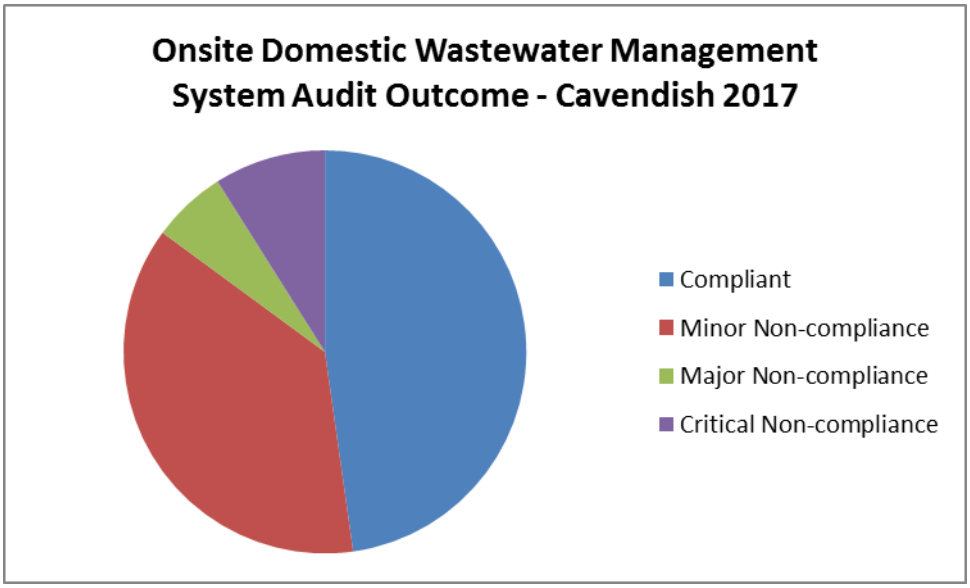

Figure 3: Compliance of Onsite Wastewater Systems

4.1 Minor Non-compliances

Minor non-conformances were classified, for the purpose of differentiating varying compliance, as any works not subject to immediate public health concern. These works include, but are not limited to;

- Minor repair to system (septic tank, grease trap or distribution pit).
- Installation and repair of e-duct vents.
- Installation of inspection risers to allow access for monitoring.
- Uncovering Septic Tank inspection outlets.
- Clearing/cleaning of effluent distribution pits.

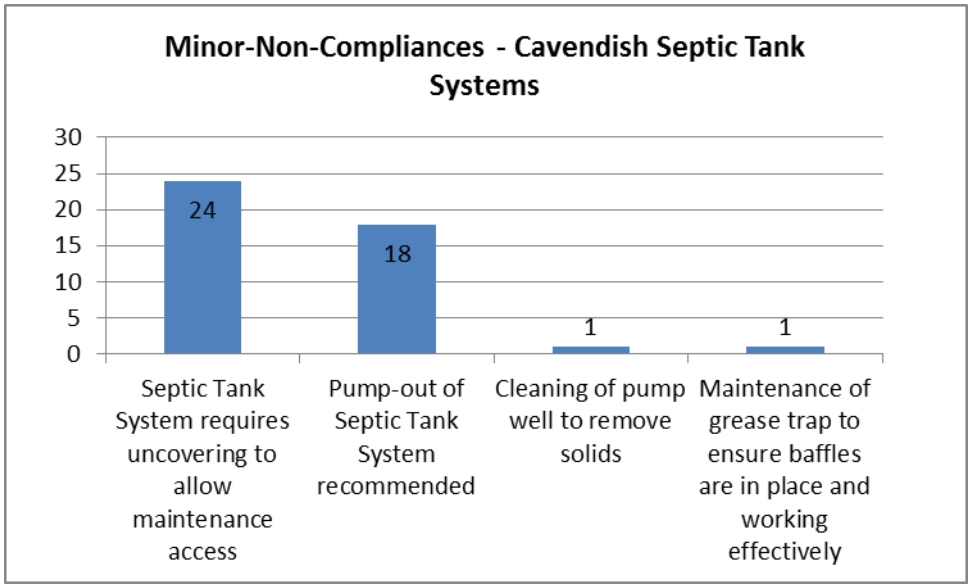

Figure 4: Common Minor Non-compliances

The audit of systems in Cavendish indicated that many systems (36%) have been covered with soil, garden beds and/or paving, therefore making access for maintenance difficult. As a result of this finding it was recommended at each of these properties that, where the property owner was unable to determine the timeframe of the last pump-out, a pump-out be arranged to ensure the ongoing operational capacity of the system. It is recognised that many systems were classified in the minor non-compliance category due to inability to access the system for assessment. This indicates a risk that a proportion of these systems may be masking deficiencies that are unable to be determined without appropriate access to the system.

The presence of minor non-conformances was addressed with letters issued to each property identifying the works required to meet regulatory standards (Appendix 5). The cost of repair must be met by the property holder in cooperation with Council and any *Environment Protection Act 1970* permits applicable to the property.

4.2 Major/Critical Non-compliances

A total of 10 (15%) properties inspected were classified as having a major or critical non-compliance with their system. This classification includes any identification of an immediate risk to public health. Of the systems identified as having major non-compliance with current standards the issues identified included;

- A requirement for urgent pumping out of the system.
- Complete structural failure of the system
- Effluent (black water) disposed of via the surface of the land or to the street or roadside.

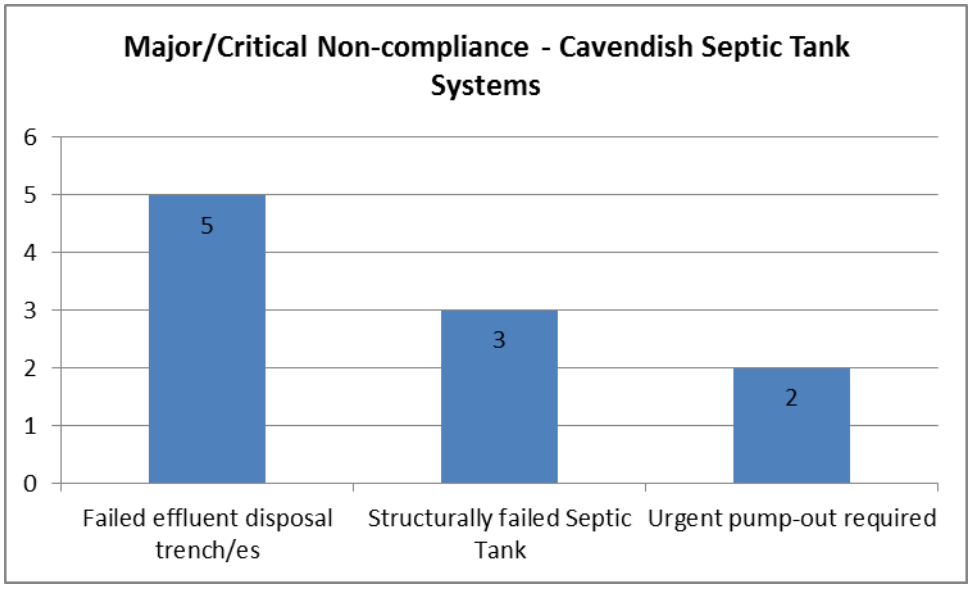

Figure 5: Common Major Non-compliances

In these cases the issues identified were considered to be of significant public health concern and were therefore issued with advice to remedy the deficiencies as soon as financially possible.

4.3 Community Education

Throughout the inspection regime Council focussed on the education and provision of advice to community members responsible for the maintenance and upkeep of onsite domestic wastewater management systems in Cavendish. Where possible, the assessment of the system on a particular lot was undertaken in conjunction with the property owner/tenant to allow for discussion around the operation and maintenance of the systems in place.

Through this process information was easily obtained in relation to the frequency of regular pump-outs and the usage parameters of the system. Not only does this provide officers with technical information to assist with the risk assessment, the owner also receives advice on how to better utilise the system.

At the conclusion of the program property owners were provided with a letter detailing the legislative requirements for maintenance and details of the repairs needed to their system. These letters were sent to both the property owners and placed on file at Southern Grampians Shire Council for future referral.

A final community meeting was held on May 17th 2017, following the completion of data analysis and finalisation of this report, to communicate the key messages from the audit program to the residents affected by the requirements.

5. Discussion and Recommendations

The scope of this project was to identify and itemise the deficiencies present in domestic onsite wastewater systems in the township of Cavendish, with a focus to advocating the role of Council in the wastewater space. There were many and varied observations made with respect to this scope and the emphasis on community

education and advice was a critically important aspect of the program. Despite this, there are several areas of further research and assessment that should be undertaken by Council to fully assess and respond to the public health risk of domestic onsite wastewater management in the township.

5.1 Community Response

The residents of Cavendish were proactive in their approach to the assessments and were key contributors to the success of the program undertaken. With respect to this, the residents of Cavendish are strong advocates for advancement and growth of Cavendish as a town. This focus is detailed in the *Cavendish & District Community Plan 2014-2020* and leads to a strong focus on investment in the options available for wastewater management on small allotments in the future.

5.2 Recommendations and Conclusions

As a result of small allotments and restrictive ability for onsite disposal of wastewater to current legislative standards, it is in the best interest of Council to investigate the feasibility of alternative wastewater disposal options within the township of Cavendish. In investigating this, the fragility of the Wannon River, in terms of the environmental and social importance this water body play in the Cavendish community, must be considered.

In order to satisfactorily address the issues present, both currently and into the future, the following actions should be taken by Council;

1. Council should continue to monitor the compliance of existing systems in Cavendish with a scope to ensure that the public health outcomes of the community are protected as far as is reasonably practicable. The results of the assessments indicate that continued monitoring and minor maintenance allows safe and contnued operation of existing systems in 85% of cases.

2. Due to the small allotments in the residential areas of Cavendish and the soil types in the area this township is potentially a candidate for an affordable alternative to the traditional gravity sewer. Council, Wannon Water and Community should remain abreast of funding opportunities in this area and ensure that advocacy to State Government continues, in order to support this development in the future.

3. Continued community education in relation to the requirements, and benefits, of continued and regular maintenance of existing systems is vital to the town of Cavendish. The community has strong views on the importance of environmental heritage to the town and therefore the link to domestic onsite wastewater management must be nurtured to provide for the most environmentally sensitive outcomes for the community.

4. Adequacy and location of wastewater management system tank/s and effluent area information should be submitted with Town Planning, Building and Septic Systems applications. The provided information will verify whether effluent is treated and maintained within the allotment and if wastewater management system maintenance will be impeded by other works on the site

These outcomes are similar to those found in Branxholme and Penshurst. It must be noted that resourcing and availability of government assistance in this space is extremely limited. The intention of the property owners in Cavendish is similar to the other towns audited, in that the preference of the majority of residents is to maintain the existing infrastructure with an open mind to the possibility of further improvements in the future, dependant on funding.

In conjunction with this further research, detailed analysis of ground water and geological parameters in the area are required to determine the most suitable options.

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7. Appendices

A1: Community Information Letter Template

Ref: 10545

08 February 2017

[redacted]

Dear Owner

NOTIFICATION OF SEPTIC TANK SYSTEM INSPECTION & COMMUNITY MEETING

Re: [redacted]

Councils in Victoria are responsible for ensuring domestic septic systems are installed and managed correctly, to avoid environmental pollution and public health issues. Southern Grampians Shire Council's Domestic Wastewater Management Plan (2006) recommends regular inspections of systems to ensure their correct operation. We have a planned program of inspections for all unsewered townships in the Shire.

Council wishes to advise that your wastewater management system (septic tank system) will be inspected by Council officers during the period **20 March 2017 to 07 April 2017**

Prior to commencing the inspection program Council will be providing information about the program at the Cavendish community engagement meeting. Details of this event are as follows;

Location:	**Cavendish Soldier Memorial Hall**
	32-34 Barker Street, Cavendish
Date:	**15 March 2017**
Time:	**8.00pm start**

At this information session Council officers will be available to discuss the scope of the audit program, common and potential issues expected to be identified and to discuss potential solutions to these issues. No individual systems or circumstances will be discussed in general; however you are most welcome to discuss your individual circumstance with Council officers in confidentiality.

It is not necessary for you to be home or present for the inspection, as the officer will leave a card notifying you that the inspection has been carried out. However, please ensure that the septic system and inspection caps are fully accessible and free from vegetation and other obstructions.

Information collected during the forthcoming septic system inspections will assist Council and the community in future decision making in relation to wastewater management in Cavendish.

If you require any further information or wish to be present during the inspection, please contact Council's Environmental Health Coordinator, Pauline Porter on (03) 5573 0244, or Environmental Health Officer, Aaron Kennett on (03) 5573 0245.

Yours Sincerely

Pauline Porter
Environmental Health Coordinator

A2: Cavendish Community Information Session Presentation

Cavendish Wastewater Management (Septic) Inspection Information Session

15th March 2017

Southern Grampians Shire Council

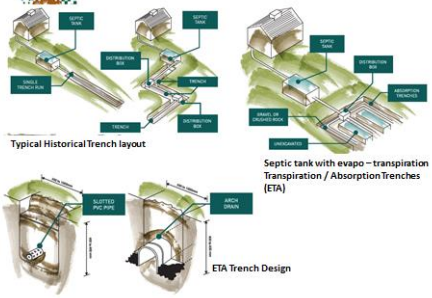
Background

- Victorian Council's are responsible for ensuring septic systems of <5000L are installed & managed correctly, to avoid environmental pollution and public health issues.
- Council's Domestic Wastewater Management Plan (2006) recommends regular inspections of systems to ensure their correct operation.
- Glenthompson Community Plan (2013) identifies community to work with council to review opportunities to improve wastewater management.
- Council has a planned program of septic inspections for all un-sewered townships in the Shire.
- Branxholme, Penshurst and Hillier Ln, Hamilton wastewater management system inspections have been completed.

Overview

- Types of wastewater management systems
- Potential impacts of failing wastewater management systems
- Responsibilities
- Purpose of the wastewater (septic) inspections
- Wastewater inspection area
- Wastewater inspection parameters
- Further information Questions

Types of Wastewater Management Systems

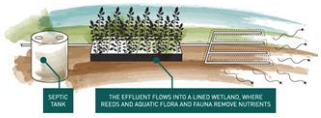


Typical Historical Trench layout

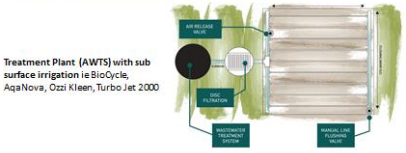
Septic tank with evapo – transpiration Transpiration / Absorption Trenches (ETA)

ETA Trench Design

Types of Wastewater Management Systems

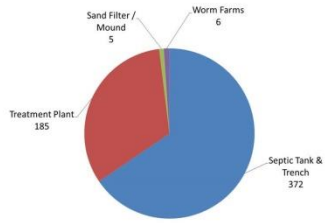


Reed Beds



Treatment Plant (AWTS) with sub surface irrigation ie BioCycle, AqaNova, Ozzi Kleen, Turbo Jet 2000

No. of Septic Permits To Install issued for types of Wastewater Mangement Systems Within SGSC 2001 - 2016



Potential impacts of failing wastewater management systems

Human Health	Environmental	Social
Spread of disease (human & animal)	Pollution of surface water	Decreased amenity
Spread of minor illnesses	Pollution of groundwater	Odour
Harbour Vermin (mosquitoes transmit arboviruses)	Degradation of soils	Impacts on infrastructure (stormwater)
	Degradation of native vegetation	Financial for system owners
	Increased weed growth	Impact on economic development

Responsibilities

- Environment Protection Act 1970

➢Council's responsibility

- Consider wastewater management matters when approving rezones, subdivisions and building construction & site plans
- Approve Septic system installation & alteration permits
- Monitor Septic Systems to ensure they comply with permit conditions
- Ensure compliance with EPA Onsite Wastewater Management Code
- Abate nuisances caused by septic systems that have a Septic Permit

➢Individual responsibility

- Obtain a Septic Permit from Council when installing & altering Septic system
- Comply with Septic Permit Conditions, Onsite Wastewater Management Code & EPA requirements
- To not pollute any waters so that the condition of the waters are harmful to public health or environment.

Responsibilities

- Public Health &Wellbeing Act 2008

➢ Council's responsibility

- Seek to protect, improve & promote public health
- Remedy, as far as reasonable, all nuisances (i.e. dangerous or are liable to be dangerous to health or offensive)
- Issue notices to persons to remedy / prevent activity which is likely or is liable to be dangerous to house
- Take action in Magistrate Court when notices have not be complied with or the nuisances is likely to re occur

➢ Individual responsibility

- To not cause a nuisance or knowingly allow a nuisance emanate for any land owned or occupied
- Remedy / prevent activity which is or is liable to be dangerous to health

Purpose of Wastewater Management Systems inspections

- Assess the condition of properties' wastewater management system & capability to maintain wastewater within property boundary.
- Information collected during wastewater inspections will assist Council & community in future decision making in the management of wastewater in Glenthompson.
- Please note that officers may take photos of various aspects of your system during the inspections

Wastewater Management System Inspection Area

Process

Septic Inspection Notification letter provided to property owner

⇩

Community septic inspection information meeting

⇩

Township Septic Inspection

⇩

Septic inspection outcome letter provided to property owner

⇩

Community Septic inspection outcome information meeting

Wastewater Inspection Parameters

- Approximately **85** properties are to be inspected within the project area.
- Each property will be assessed for a number of parameters;
- **Structural features** (e.g. septic tank lids, condition of trench & pipework)
- **Physical condition** (e.g. Sludge levels, stormwater management, soil type, bores)
- **Maintaining wastewater onsite** (e.g effluent entering stormwater /neighbours)
- **Maintenance provision** (e.g. Vegetation, sludge pump out & plumbing history)

Further Information

- **Southern Grampians Shire Council**
  Environmental Health
  ph (03) 5573 0256 / Council@sthgrampians.vic.gov.au
  1 Market Place, Hamilton 3300
  www.sthgrampians.vic.gov.au
- **Environmental Protection Authority (EPA)**
  onsite wastewater
  www.epa.vic.gov.au/your-environment/water/onsite-wastewater
- **EPA Code of Practice Onsite Wastewater Management**
  Publication no. 891.3, February 2013
  http://www.epa.vic.gov.au/~/media/Publications/891%203.pdf
- **Legislation**
  www.austlii.edu.au/au/vic/

Questions

"While I am concerned about our silos, I think our first priority is the septic tank."

A3: Onsite Wastewater Audit Inspection Form Template

EXISTING ON-SITE WASTEWATER SYSTEMS INSPECTION: SEPTIC TANK

Southern Grampians SHIRE COUNCIL

Date & Time of Inspection: Date of last Council Inspection:

Property Details			
Property Address:			
Address:			
Lots (CA, lots, Section, PS, TP):			
Assessment no.: **9062**		Property Area (m^2):	
Contact Details			
Owner's Name:			
Postal Address:			
Ph:			
Email:			
Occupiers Name:			
Postal Address:			
Ph:			
Email:			
System Details			
❒ Residential Use	❒ Commercial Use	❒Other	
No. of bedrooms:		No. of residents	
Water source:	❒ Rainwater ❒ Dam/river	❒ bore	❒ Reticulated
No. of tanks		Tank Capacity(s) (L) :	
❒ Septic Tank	❒ Collection / Holding Well	❒ Pump Well	❒ Other
❒ Concrete	❒ Plastic/poly	❒ Fibreglass	❒ Other
GPS Coordinates:		Permit No. / database no.	
Manufacturer / system brand:			
Split System	❒ Yes ❒ No	Installation date:	
Method of application	❒ Gravity ❒ Pump	❒ Siphon	
Configuration	❒ Trench ❒ Absorption Bed		
Trench / bed dimensions	No. of trenches / beds/mound:	Total Length:	
Width (mm):	Length (mm):	Depth (mm):	

Gravity distribution device: ❒ Yes ❒ No Type: ❒ Splitter box ❒ Sequencing valve ❒ drop box ❒ Other		
Distribution System access ❒ Access box/ pit ❒ Riser ❒ None ❒ Other		
Disposal Area Distance from Nearest watercourse(m): Nearest House (m):		
Does system comply with EPA Septic Code buffer distances? ❒ Yes ❒ No ❒ Unknown		
General comments		
Do you need to remove vegetation around and in the tank to improve access for maintenance? ❒ Yes ❒ No		
Is there localised flood potential? ❒ Yes ❒ No ❒ Unknown		
Is there erosion potential? ❒ Yes ❒ No ❒ Unknown		
System impacting on neighbours ❒ Yes ❒ No		
Septic Tank		
Are there any gaps between the tank and the lid? ❒ Yes ❒ No		
Are inspection caps, tank and lid above ground level? ❒ Yes ❒ No		
Is the tank lid suitable for the tank? ❒ Yes ❒ No		
Does the tank have easily accessible inspection caps? ❒ Yes ❒ No		
Are the inspection caps present and unbroken? ❒ Yes ❒ No		
Has the primary septic tank been desludged in the last 3 years? ❒ Yes ❒ No ❒ Unknown		
Does the tank need desludging (is the sludge level high or near the bottom of the inlet)? ❒ Yes ❒ No		
Is any air vent attached to the septic tank / holding well in a functional state? ❒ Yes ❒ No ❒ N/A		
Is the tank in good condition (no cracks, leaks / damaged lids / walls)? ❒ Good ❒ Fair ❒ Poor		
Do tanks need urgent repair / replacement due to major structural failure or undersizing? ❒ Yes ❒ No		
Has the outlet filter been cleaned recently? ❒ Yes ❒ No ❒ N/A		
Crust ❒ Yes ❒ No	Odour ❒ Yes ❒ No	
Sludge depth ❒ High ❒ Med ❒ Low	Desludge needed ❒ Yes ❒ No	
Inlet/outlet junctions clear ❒ Yes ❒ No	Good biological activity ❒ Yes ❒ No	
General condition of tank ❒ Good ❒ Fair ❒ Poor		
Pumps / Electrical Components		
Does the pump operate when needed? (trigger the float switches to check operation) ❒ Yes ❒ No ❒ N/A		
Does the alarm work ❒ Yes ❒ No ❒ N/A		
Has the pump been serviced in the last 12 months? ❒ Yes ❒ No ❒ N/A		
Presence of sludge in pump well ❒ Yes ❒ No ❒ N/A		
Pipes		
Are the pipes connecting the septic tank, pump well and/or holding well, or septic tank and trench, functioning and installed correctly? ❒ Yes ❒ No ❒ Unknown		
Are there any unsealed pipes that allow untreated wastewater to escape? ❒ Yes ❒ No ❒ Unknown		
Are there any pipes allowing untreated wastewater/ greywater to enter stormwater? ❒ Yes ❒ No ❒ Unknown		

Trench / bed	
Is the dosing siphon or splitter box working properly and not blocked or clogged?	❒ Yes ❒ No ❒ N/A
Evidence of physical damage (eg: digging, erosion)	❒ Yes ❒ No
Is there evidence of vehicle, human or animal traffic over trench / bed ?	❒ Yes ❒ No
Is there evidence of maintained protective measures to prevent trench / bed damage?	❒ Yes ❒ No
Trenches follow contours	❒ Yes ❒ No ❒ Unknown
Presence of surface ponding / toe leaching / seepage	❒ Yes ❒ No
Are some trenches / bed greener than others , **if yes identify trenches**	❒ Yes ❒ No
Excess weed growth on trench and in the area	❒ Yes ❒ No
Incomplete or inappropriate vegetation cover	❒ Yes ❒ No
Inspection port interiors clear and in good condition	❒ Yes ❒ No ❒ N/A
Comments, action or repairs needed:	
Map of Site & System	
Name / Title of Inspector:	
Signature:	**Date:**

A4: Resident Inspection Report Letter Template – Compliant

Ref: [redacted]

19 April 2017

[redacted]

Dear Sir / Madam

SEPTIC SYSTEM INSPECTION REPORT: [redacted]

An inspection of your septic tank system was carried out recently during the planned inspection program undertaken by Southern Grampians Shire Council. The program investigated current wastewater management of properties within the township zone of Cavendish. It identified septic system defects that will need to be rectified according to government regulations and legislation.

At your premises at [redacted], the inspection showed that your septic tank system complies with existing legislation at the time of installation and does not currently pose a public health threat; therefore you do not need to take any remedial action at this time. To ensure ongoing compliance of the system please continue to monitor and maintain your system as required.

A community meeting will be held at **7.00pm on Wednesday 17th May 2017 at the Cavendish Soldier Memorial Hall, 32-34 Barker Street Cavendish** to discuss the outcomes of the inspection program. Please be advised that no individual circumstances will be discussed at this meeting. If you wish to discuss your individual circumstances an appointment can be made to speak to Council officers by calling on the following details.

We thank you for your cooperation. If you require any further information, please contact Council's Environmental Health Department staff, Pauline Porter on (03) 5573 0244 or Aaron Kennett on (03) 5573 0245.

Yours Sincerely

paulineporter

Pauline Porter
Environmental Health Coordinator

A5: Resident Inspection Report Letter Template – Minor/Major Non-Compliance

Ref: [redacted]

19 April 2017

[redacted]

Dear Sir / Madam

SEPTIC SYSTEM INSPECTION REPORT AND COMMUNITY MEETING: [redacted]

Council wishes to advise that an inspection of your wastewater management system (septic tank system), was carried out during the planned Cavendish wastewater system inspection program carried out in March/April 2017.

The wastewater inspection program was undertaken as per Southern Grampians Shire Council's Domestic Wastewater Management Plan (2006). The Cavendish wastewater inspection program investigated current wastewater management of properties and identified septic system defects that may threaten public health and the environment.

An inspection of your wastewater management system identified the following deficiencies which require maintenance and/or repairs to be carried out on your properties' wastewater system to avoid your system causing environmental pollution and public health issues now and into the future;

[redacted]

Once the works have been completed, please supply confirmation to Council. Suitable information would include a copy of an account, receipt or declaration from the tradesperson who carried out the required works. Failure to address the works may see Council take further action.

A community meeting will be held at **7.00pm on Wednesday 17th May 2017 at the Cavendish Soldier Memorial Hall, 32-34 Barker Street Cavendish** to discuss the outcomes of the inspection program. Please be advised that no individual circumstances will be discussed at this meeting. If you wish to discuss your individual circumstances an appointment can be made to speak to Council officers by calling on the following details.

Should you require any assistance in understanding this inspection report or you require any further information, please contact Council's Environmental Health Department staff, Pauline Porter on (03) 5573 0244 or Aaron Kennett on (03) 5573 0245

Yours Sincerely

Pauline Porter
Environmental Health Coordinator

A6: Resident Inspection Report Letter Template – Critical Non-Compliance

Ref: [redacted]

19 April 2017

[redacted]

Dear Sir / Madam

SEPTIC SYSTEM INSPECTION REPORT AND COMMUNITY MEETING: [redacted]

Council wishes to advise that an inspection of your wastewater management system (septic tank system), was carried out during the planned Cavendish wastewater management system inspection program carried out in March/April 2017.

The wastewater management inspection program was undertaken as per Southern Grampians Shire Council's Domestic Wastewater Management Plan (2006). The Cavendish wastewater inspection program investigated current wastewater management of properties, estimated capability of properties to maintain wastewater onsite and identified septic system defects that threaten public health and the environment.

The inspection of your wastewater management system identified your current septic system presents a public health risk and is required to be repaired/replaced due to the following reason/s;

[redacted]

A *"Permit to Install/Alter a Septic Tank System"* must be sought from Council prior to **01 September 2017**. The applicable fee for such a permit has been waived on this occasion. You are advised that it is an offence against *Environment Protection Act 1970* s.53L to construct, install or alter a septic tank system without a permit.

Failure to submit an application for a *"Permit to Install/Alter a Septic Tank System"* with the intention to undertake the required works within the specified timeframe may result in Council issuing a *Public Health and Wellbeing Act 2008* notice.

A community meeting will be held at **7.00pm on Wednesday 17th May 2017 at the Cavendish Soldier Memorial Hall, 32-34 Barker Street Cavendish** to discuss the outcomes of the inspection program. Please be advised that no individual circumstances will be discussed at this meeting. If you wish to discuss your individual circumstances an appointment can be made to speak to Council officers by calling on the following details.

Should you require any assistance in understanding this inspection report or you require any further information, please contact Council's Environmental Health Department staff, Pauline Porter on (03) 5573 0244 or Aaron Kennett on (03) 5573 0245.

Yours Sincerely

paulineporter

Pauline Porter
Environmental Health Coordinator

A6: Property Inspection Results Spreadsheet Data

Assessment_Number	Compliance	Notes
1740	Minor Non-compliance	1. During the inspection Council officers were unable to access the septic tank for inspection. Uncover the septic tank or i outlets to allow future access for maintenance and monitoring of the system. 2. The septic tank system should be pumped out, if not done in the past 5 years, to ensure that the trench/es are protecte excessive sludge in the system and to ensure the ongoing effective operation of the system. 3. Ensure that the baffles in the grease trap are all present and in good working order. 4. Clean the grease trap to remove grease accumulation. 5. Repair the broken grease trap lid to prevent mosquito breeding, odour and to ensure the system remains in good oper
1540	Compliant	
10623	Critical Non-compliance	1. The effluent trench/es currently in use is damaged and there is evidence of effluent ponding on the surface of the land The effluent disposal trench/es require/s replacement to ensure correct operation of the system and reduce the risk to p trench/es. An 'Application for a Permit to Install/Alter a Septic Tank System' must be lodged with all required documenta works.
9795	Minor Non-compliance	1. During the inspection Council officers were unable to access the septic tank for inspection. Uncover the septic tank or i outlets to allow future access for maintenance and monitoring of the system.
11718	Compliant	

1546	Minor Non-compliance	1. During the inspection Council officers were unable to access the septic tank for inspection. Uncover the septic tank or i outlets to allow future access for maintenance and monitoring of the system. 2. The septic tank system should be pumped out, if not done in the past 5 years, to ensure that the trench/es are protecte excessive sludge in the system and to ensure the ongoing effective operation of the system.
1550	Critical Non-compliance	1. The effluent trench/es currently in use is damaged and there is evidence of effluent ponding on the surface of the land The effluent disposal trench/es require/s replacement to ensure correct operation of the system and reduce the risk to p trench/es. An 'Application for a Permit to Install/Alter a Septic Tank System' must be lodged with all required documenta works.
10258	Major Non-compliance	1. The inlet and outlet 'T' pipes in the Septic Tank are damaged and therefore the system is not able to effectively treat ar intended manner. Repair the inlet and outlet 'T' pipes in the Septic Tank to allow the system to operate as intended.
11466	Minor Non-compliance	1. During the inspection Council officers were unable to access the septic tank for inspection. Uncover the septic tank or i outlets to allow future access for maintenance and monitoring of the system. 2. The septic tank system should be pumped out, if not done in the past 5 years, to ensure that the trench/es are protecte excessive sludge in the system and to ensure the ongoing effective operation of the system.
1549	Minor Non-compliance	1. During the inspection Council officers were unable to access the septic tank for inspection. Uncover the septic tank or i outlets to allow future access for maintenance and monitoring of the system.

11467	Critical Non-compliance	1. The effluent trench/es currently in use is damaged and there is evidence of effluent ponding on the surface of the land The effluent disposal trench/es require/s replacement to ensure correct operation of the system and reduce the risk to p trench/es. An 'Application for a Permit to Install/Alter a Septic Tank System' must be lodged with all required documenta works.
1554	Minor Non-compliance	1. During the inspection Council officers were unable to access the septic tank for inspection. Uncover the septic tank or i outlets to allow future access for maintenance and monitoring of the system. 2. The septic tank system should be pumped out, if not done in the past 5 years, to ensure that the trench/es are protecte excessive sludge in the system and to ensure the ongoing effective operation of the system.
10621	Compliant	
11477	Compliant	
1640	Compliant	
1787	Compliant	
1553	Major Non-compliance	1. The Septic Tank contains a high level of sludge and solid waste. The tank requires urgent pump-out to remove the accu effluent lines/trenches from damage caused by solid matter.
1572	Compliant	
11661	Compliant	
1791	Minor Non-compliance	1. During the inspection Council officers were unable to access the septic tank for inspection. Uncover the septic tank or i outlets to allow future access for maintenance and monitoring of the system. 2. Greywater from the new dwelling is disposed to the surface of the land. Grey water contains harmful bacteria and shou surface of the land to prevent the risk of illness from contact with the waste water.

1813	Compliant	
1555	Minor Non-compliance	1. During the inspection Council officers were unable to access the septic tank for inspection. Uncover the septic tank or i outlets to allow future access for maintenance and monitoring of the system. 2. The septic tank system should be pumped out, if not done in the past 5 years, to ensure that the trench/es are protecte excessive sludge in the system and to ensure the ongoing effective operation of the system.
1579	Minor Non-compliance	1. During the inspection Council officers were unable to access the septic tank for inspection. Uncover the septic tank or i outlets to allow future access for maintenance and monitoring of the system. 2. The septic tank system should be pumped out, if not done in the past 5 years, to ensure that the trench/es are protecte excessive sludge in the system and to ensure the ongoing effective operation of the system.
1576	Compliant	
1610	Minor Non-compliance	1. The distribution pit at the commencement of the trench contains an accumulation of soil/solid matter. Clean the distril matter and allow wastewater to be disposed effectively.
1609	Minor Non-compliance	1. During the inspection Council officers were unable to access the septic tank for inspection. Uncover the septic tank or i outlets to allow future access for maintenance and monitoring of the system.
1682	Compliant	

1649	Minor Non-compliance	1. During the inspection Council officers were unable to access the septic tank for inspection. Uncover the septic tank or i outlets to allow future access for maintenance and monitoring of the system. 2. The septic tank system should be pumped out, if not done in the past 5 years, to ensure that the trench/es are protecte excessive sludge in the system and to ensure the ongoing effective operation of the system.
1619	Compliant	
1730	Minor Non-compliance	1. During the inspection Council officers were unable to access the septic tank for inspection. Uncover the septic tank or i outlets to allow future access for maintenance and monitoring of the system. 2. The septic tank system should be pumped out, if not done in the past 5 years, to ensure that the trench/es are protecte excessive sludge in the system and to ensure the ongoing effective operation of the system.
1732	Minor Non-compliance	1. During the inspection Council officers were unable to access the septic tank for inspection. Uncover the septic tank or i outlets to allow future access for maintenance and monitoring of the system.
1729	Minor Non-compliance	1. During the inspection Council officers were unable to access the septic tank for inspection. Uncover the septic tank or i outlets to allow future access for maintenance and monitoring of the system.
1733	Minor Non-compliance	1. During the inspection Council officers were unable to access the septic tank for inspection. Uncover the septic tank or i outlets to allow future access for maintenance and monitoring of the system. 2. The septic tank system should be pumped out, if not done in the past 5 years, to ensure that the trench/es are protecte excessive sludge in the system and to ensure the ongoing effective operation of the system.

1727	Critical Non-compliance	1. The septic tank side-wall has cracked and therefore the Septic Tank is no longer capable of holding and treating effluen to resolve the issue the Septic Tank must be pumped out, the structural integrity of the tank assessed by a plumber and r In the case that the Septic Tank is unable to be repaired a replacement of the Septic Tank will be required. An 'Applicatio Septic Tank System' must be submitted prior to commencement of works if a replacement is required.
1734	Critical Non-compliance	1. The effluent trench/es currently in use is damaged and there is evidence of effluent ponding on the surface of the land The effluent disposal trench/es require/s replacement to ensure correct operation of the system and reduce the risk to p trench/es. An 'Application for a Permit to Install/Alter a Septic Tank System' must be lodged with all required documenta works.
1674	Minor Non-compliance	1. During the inspection Council officers were unable to access the septic tank for inspection. Uncover the septic tank or i outlets to allow future access for maintenance and monitoring of the system. 2. The septic tank system should be pumped out, if not done in the past 5 years, to ensure that the trench/es are protect excessive sludge in the system and to ensure the ongoing effective operation of the system.
1739	Minor Non-compliance	1. During the inspection Council officers were unable to access the septic tank for inspection. Uncover the septic tank or i outlets to allow future access for maintenance and monitoring of the system. 2. The septic tank system should be pumped out, if not done in the past 5 years, to ensure that the trench/es are protect excessive sludge in the system and to ensure the ongoing effective operation of the system.
1743	Compliant	
1742	Compliant	

11416	Compliant	
1785	Compliant	
1808	Major Non-compliance	1. The outlet from the Ozzi-Kleen Aerated Wastewater Treatment System (AWTS) was connected to a sprinkler system via inspection. Effluent was being dispersed via surface irrigation. Secondary effluent such as that from an AWTS must be dis Remove the garden hose and fitting from the flush line and re-direct the effluent to the existing subsurface irrigation line
1806	Minor Non-compliance	1. During the inspection Council officers were unable to access the septic tank for inspection. Uncover the septic tank or i outlets to allow future access for maintenance and monitoring of the system. 2. The septic tank system should be pumped out, if not done in the past 5 years, to ensure that the trench/es are protecte excessive sludge in the system and to ensure the ongoing effective operation of the system.
1790	Minor Non-compliance	1. During the inspection Council officers were unable to access the septic tank for inspection. Uncover the septic tank or i outlets to allow future access for maintenance and monitoring of the system. 2. The septic tank system should be pumped out, if not done in the past 5 years, to ensure that the trench/es are protecte excessive sludge in the system and to ensure the ongoing effective operation of the system. 3. Clean the pump well pit to remove solid matter and reduce the odour from the well.
10396		
1810		

1798	Minor Non-compliance	1. During the inspection Council officers were unable to access the septic tank for inspection. Uncover the septic tank or i outlets to allow future access for maintenance and monitoring of the system. 2. The septic tank system should be pumped out, if not done in the past 5 years, to ensure that the trench/es are protecte excessive sludge in the system and to ensure the ongoing effective operation of the system.
1804	Compliant	
1795	Compliant	
1801	Minor Non-compliance	1. During the inspection Council officers were unable to access the septic tank for inspection. Uncover the septic tank or i outlets to allow future access for maintenance and monitoring of the system. 2. The septic tank system should be pumped out, if not done in the past 5 years, to ensure that the trench/es are protecte excessive sludge in the system and to ensure the ongoing effective operation of the system.
1811	Minor Non-compliance	1. During the inspection Council officers were unable to access the septic tank for inspection. Uncover the septic tank or i outlets to allow future access for maintenance and monitoring of the system.
1802	Compliant	
1809	Compliant	
1800	Compliant	
1794	Compliant	

1805	Minor Non-compliance	1. During the inspection Council officers were unable to access the septic tank for inspection. Uncover the septic tank or i outlets to allow future access for maintenance and monitoring of the system. 2. The septic tank system should be pumped out, if not done in the past 5 years, to ensure that the trench/es are protecte excessive sludge in the system and to ensure the ongoing effective operation of the system.
1792	Critical Non-compliance	1. The septic tank is in poor structural condition and the effluent trench is severely eroded. The system requires replacem risk posed by the use of the damaged system.
1799	Compliant	
1812	Compliant	
1796	Compliant	
1556	Minor Non-compliance	1. During the inspection Council officers were unable to access the septic tank for inspection. Uncover the septic tank or i outlets to allow future access for maintenance and monitoring of the system.
1797	Minor Non-compliance	1. During the inspection Council officers were unable to access the septic tank for inspection. Uncover the septic tank or i outlets to allow future access for maintenance and monitoring of the system. 2. The septic tank system should be pumped out, if not done in the past 5 years, to ensure that the trench/es are protecte excessive sludge in the system and to ensure the ongoing effective operation of the system.
1807	Compliant	

1574	Minor Non-compliance	1. During the inspection Council officers were unable to access the septic tank for inspection. Uncover the septic tank or i outlets to allow future access for maintenance and monitoring of the system. 2. The septic tank system should be pumped out, if not done in the past 5 years, to ensure that the trench/es are protecte excessive sludge in the system and to ensure the ongoing effective operation of the system.