

## Appendix H2 - Kempsey On-Site Sewage Management Strategy

### 1.0 Executive Summary

The On-Site Management Strategy outlines the objectives related to the on-site treatment and disposal of wastes within the Kempsey Shire area. The Shire, covering over 3300km<sup>2</sup>, encompasses the meandering Macleay River, from the elevated regions of the upper catchment west of Bellbrook to the river entrance at South West Rocks. Smaller catchments also exist within the Kempsey LGA, being the Maria River system and Korogoro and Killick Creeks. Fishing and Oyster Industries are established in the Lower Macleay area, particularly in the South West Rocks/Stuarts Point areas. Tourism is a major industry with travellers being attracted to the coastal and estuarine areas and the unique rugged hinterland.

The Strategy aims to provide an approach to On-Site Management through sustainability, effective management control and education. Since the introduction of the first Strategy residents living within unsewered areas are better informed about their responsibilities and system maintenance requirements. As a result, on-site sewage management systems (OSMS) are operating at a much higher performance level than in the past. Council has a responsibility to monitor not only individual system performance, and take action in regard to defective systems where required, but also to manage the cumulative impact of small amounts of sewage from the many systems in the area.

In doing this Council has allocated resources to support a number of programs which are ongoing including the Approval Program, the On-site Sewage Management Inspection Program, water quality monitoring and education programs. Through effective use of this Strategy, the public health and environmental impacts associated with the use of OSMS have been reduced.

In preparing the Strategy, it has been acknowledged that considerable data gaps still exist in respect to the number, type, location and operational efficiency of existing installed systems. Council has decided that an audit inspection of each system is necessary to establish baseline data in respect to existing systems.

### 2.0 Strategy Objectives

This Strategy has been developed to provide an integrated approach to OSSM within a self regulating framework of community education, local support services and environmental and public health protection. The three key objectives of this Strategy are to:

1. Promote Sustainability
  - Ensure sustainable management of wastewater generated on all unsewered properties within the LGA, including best practice and the approval of systems advocating treated wastewater reuse.
  - Monitor and manage cumulative impacts from OSSM systems.
  - Implement and facilitate best management practice in relation to the installation and operation of onsite sewage management systems.
  - Pursue long term, viable sewage management solutions for identified high risk areas.

2. **Effective Management of On-Site Sewage Management Systems**
  - Ensure that all sewage management systems have the required operating approval and are operating in accordance with approval conditions.
  - Progressively eliminate illegal discharges of effluent from OSSM systems.
  - Protect surface water, stormwater, land and vegetation, public health and community amenity from the impacts associated with OSSM systems.
  
3. **Education & Stakeholder Involvement**
  - Ensure that all stakeholders are aware of their responsibilities and have access to enough appropriate information to ensure their responsibilities are met.
  - Work in partnership with the community and other stakeholders to ensure sustainability of on-site sewage management in Kempsey LGA.
  - Ensure that the community is provided with an efficient, cost-effective On-site Sewage Management program that meets both the needs of the stakeholders and the responsibilities of Council.
  - Educate and support professional service providers.

### **3.0 Overview**

On-Site sewage management involves the treatment of wastewater followed by the release of liquid (treated wastewater) and solid (sludge, septage and compost) products into the environment or removal by tanker pump out. Inappropriate use or disposal of these products can have the following adverse impacts:

- The spread of disease by bacteria, viruses, parasites and other organisms in the wastewater.
- Contamination of groundwater and surface water.
- Pollution of waterways.
- Degradation of soil and vegetation.
- Decreased community amenity, caused by odours, noise and insects.

On-site sewage disposal has the potential to affect public health, the local economy, recreation, residential and business development and other aspects of everyday life. As residents are more likely to be directly responsible for making decisions about their wastewater, it is important that they know about their system and its potential impact on public health and the environment.

### **4.0 Statement of Council's Commitment**

This Strategy is an evolving document which allows for a process of continual improvement of On-site Sewage Management practices within the Kempsey Local Government Area. The ongoing evaluation of the monitoring, inspection, approval and education programs will highlight the strengths and deficiencies of this Strategy and where changes may need to be made. Council is committed to improve public health and environmental outcomes by adopting ecologically sustainable development principles. Council is committed to a process of

continued improvement in on-site sewage management, sustainable development and better community awareness of OSMS issues within the Kempsey LGA, and is demonstrated through the continued implementation of this Strategy.

Council encourages the adoption of innovative on-site systems at both residential and community scales that will result in long-term sustainable and system management improvements.

## **5.0 Legislation**

The preparation of an On-Site Sewage Management Strategy is encouraged under the Local Government Act 1993 and the Protection of Environment Operations Act 1997 and their associated regulations. This legislation gives Councils the discretion to develop service support and supervision models that provide for the management of the impact of sewage pollution.

### **5.1 Local Government Act 1993**

The design, installation and operation of OSMS are regulated under the *Local Government Act 1993* and its associated regulations. Under Section 68 of the Act, Council approval is required prior to the installation, construction or alteration of a waste treatment device, a human waste storage facility or a drain connected to any such device or facility.

The *Local Government (General) Regulation 2005* sets out specific requirements for OSMS approvals including matters for Council consideration, performance standards and circumstances where prior Council approval is not required. Part 2 of the Regulation incorporates the requirement for an Approval to operate an onsite sewage management system.

Issues associated with the management of decentralised sewage facilities are dealt with under the *Local Government (General) Regulation 2005*, the *Environmental and Health Protection Guidelines* (DLG, 1998) and the Australian Standards 1546 & 1547. The Regulation provides for greater protection of the environment and public health through tighter control of the performance standards of OSMS.

The *Local Government Act 1993* also provides the ability to undertake enforcement action through the orders provisions of Chapter 7 in particular sections 124(21), 124(22) and 124(22A). These orders permit Officers to stipulate the manner, in which a system is to be operated, things to be done or refrained from doing. In addition, under section 124 (24) Council can order an occupier or landowner to connect to the centralised sewerage system when the property is located within 75 metres of a sewer.

### **5.2 Protection of the Environment Operations Act 1997**

The *Protection of the Environment Operations Act 1997* (POEO Act) provides local government with stronger powers to investigate complaints and to issue legally binding notices. Under the Act, local government is responsible for the regulation of activities for which it is the Appropriate Regulatory Authority (ARA). Council is the ARA for activities relating to OSMS not regulated or licensed by a State Government Authority.

A major component of any modern environmental protection program is efficient surveillance and enforcement to ensure compliance with Council requirements. Where a failing OSMS is detected during a compliance inspection the following actions are available to Council under the POEO Act:

1. Clean-up Notices

Clean-up Notices may be used in situations where a quick response to a pollution incident is required. The Clean-up Notice carries an administration fee that must be paid to Council. There is no right of merit appeal against a Clean-up Notice.

2. Prevention Notices

Prevention Notices may be issued in situations where a sewage management system is being operated in an environmentally unsatisfactory manner. The recipient of a Prevention Notice must pay an administrative fee to Council.

3. Compliance Cost Notices

The POEO Act allows Council to recover any reasonable costs and expenses it incurs in monitoring action taken under either a Clean-up or Prevention Notice, ensuring the Notice is complied with and any other associated matters.

4. Penalty Infringement Notices

Where an OSMS is failing or has the potential to discharge effluent to a waterway or the stormwater system, a Penalty Infringement Notice (PIN) may be issued. The recipient of a PIN must pay the fee or can elect to appeal the notice in the Local Court.

## 6.0 Guidelines, Standards and Policies

The State Government along with other agencies have developed a number of different guidelines and standards for use in designing and assessing On-site sewage management. The following is an outline of these guidelines which are used by Council in the implementation of this Strategy.

### 6.1 AS/NZS 1547:2012 - On-site Domestic Wastewater Management

This standard provides specific details for a range of domestic on-site sewage management facilities and land application areas for all persons and agencies involved with on-site sewage management in Australia and New Zealand. The Standard provides guidance for:

- system flows up to a maximum of 14,000L/week and population equivalent of up to 10 persons; and
- site investigation, land application system design, installation, operation and maintenance to achieve sustainable outcomes and public health performance.

## 6.2 AS/NZS 1547:2008 - On-site Domestic Wastewater Treatment Units

*Part 1: Septic tanks*

*Part 2: Waterless composting toilets*

*Part 3: Aerated wastewater treatment systems*

This standard provides performance standards that form a base against which any on-site sewage management facilities may be assessed. This standard provides technical means of compliance and test specifications that enable on-site sewage management facilities to be manufactured to comply with the performance requirements and performance criteria.

## 6.3 AS/NZS 3500.5:2000 - National Plumbing and Drainage Domestic Installations

This standard is highly relevant to licensed plumbers and installers who conduct repairs or alterations to existing on-site sewage management facilities or new installations. This standard covers the requirements for the design and installation of any plumbing and drainage.

## 6.4 Environmental & Health Protection Guidelines 1998

The *Environment and Health Protection Guidelines* were developed by the Department of Local Government in 1998. These guidelines provide Council with the tools for the effective regulation of OSMS. In order to achieve this, the Guidelines recommend that Councils should:

- Develop, implement and regularly review an Onsite Sewage Management Strategy.
- Develop site and system specific conditions of approval to operate onsite sewage management systems.
- Consider all relevant issues when approving the installation or operation of on-site sewage management systems, particularly environment and health issues, both within the site and on a catchment wide basis.
- Check that approval conditions are complied with by appropriate auditing and monitoring.
- Undertake ongoing householder education on issues including:
  - Statutory responsibilities of householders as operators of onsite sewage management systems.
  - Health and environmental risks associated with system use.
  - Specific issues related to the system installed.

The Guidelines also recommends that Councils should implement a program of OSMS audits to monitor the performance of systems and also to monitor the impact of on-site sewage management on a larger environmental scale.

## 6.5 State Environmental Planning Policy No 62 – Sustainable Aquaculture

The State Environmental Planning Policy 62 (SEPP62) requires development applications be referred to the Department of Primary Industries for comment if it is deemed that a development may have an adverse effect on oyster aquaculture or a 'priority oyster aquaculture area' as deemed by the NSW Oyster Industry Sustainable Aquaculture Strategy.

## 7.0 Environmental and Public Health Issues

In protecting public health and the environment, the *Local Government (General) Regulation 2005* specifies that an OSSM system must be operated in accordance with the following performance standards:

- The prevention of the spread of disease by micro-organism.
- The prevention of the spread of foul odours.
- The prevention of the contamination of water.
- The prevention of the degradation of soil and vegetation.
- The discouragement of insects and vermin.
- Ensuring that persons do not come in contact with untreated sewage or effluent (*whether* treated or not) in their ordinary activities on the premises concerned.
- The minimisation of any adverse impacts on the amenity of the premises and surrounding lands.

Public health protection requires Council attention to specific system failures, while the protection of the environment also requires attention to the cumulative impact of sewage pollution in the area. Managing cumulative impacts is a difficult but core responsibility of Council's On-Site Sewage Management Strategy. It is particularly important to protect the natural waterways in the Kempsey LGA from pollution, including that caused by inefficient effluent disposal. In this regard, it needs to be appreciated that many waterways suffer environmental degradation and public health risks as a result of small incremental increases in pollution from many different sources and not necessarily from large individual point sources.

Within the local environment pollution is a sensitive issue which can cause unnecessary stress, therefore, careful control of OSMS is essential. Any disposal of on-site sewage effluent may contribute pathogens, opportunistic microbes and nutrients to local waterways unless reduction measures are used on site. An understanding of the presence of pathogens in wastewater systems is also important because of the risks they pose to public health. The degree of risk is dependent on the nature of the wastewater system, its treatment, and the infectious dose of any pathogen present and the ability of an individual body to fight the organism.

## 8.0 Approval Program

### 8.1 Approval Program

The approval process establishes an accountability relationship between the property owner and the Council and ensures that householders and property owners are aware of the maintenance and operating requirements of their system.

### 8.2 Approval to Install an OSMS

Section 68 of the *Local Government Act 1993* requires that property owners obtain an approval from Council to install, construct or alter a waste treatment device or drain connected to any such device, or human waste storage facility including an effluent disposal area.

Where an OSMS is to be located in a sensitive location, best practice on-site sewerage management is to be implemented. In order for an on-site sewage management system to be considered as meeting best practice the following standards are to be met at a minimum:

- Household plumbing must be certified by a licensed plumber to meet the requirements of the *National Plumbing Code AS3500:2003* and a certificate of compliance must be submitted to council from a licensed plumber.
- Sufficient land must be available for the disposal of treated sewage, ensuring the requirements of the *Environment & Health Protection Guideline-Onsite Sewage Management for Single Households* prepared by the NSW Department of Local Government 1998 are met.
- The *Australian Standard AS/NZS 1547:2012 – On-site Domestic Wastewater Management*.
- All sewage management facilities installed or to be installed are registered with and accredited by NSW Health.
- The site must not be restricted by size, rock, bushland, waterways, or built structures to prevent the likelihood of significant environmental impacts from occurring.
- The irrigation area must not be used for recreational activities, growing of fruit or vegetables, vehicle movements or the keeping of agricultural animals.
- Tanks are to be in good working order and are to be fitted with baffles and an outlet filter.

### 8.3 Approval to Operate an OSMS

The *Local Government (General) Regulation 2005* requires that an owner of an OSMS obtain Council approval to operate the sewage management system in addition to any approval required for the installation of the system. As such, all system owners are required to lodge an application for approval with Council. For convenience, Kempsey Shire Council has designed both the application to install and the application for an approval to operate on the same form. An approval to operate is valid for a period of twelve months, after which time the approval is renewed conditional to the system being maintained in accordance with the conditions of the original approval. The operational approval will be issued for a new on-site sewage management system following a satisfactory final inspection by Council's Building Surveyor on the installation.

### 8.4 Approval for Greywater Reuse

A greywater treatment system requires Council approval to install and operate under the *Local Government Act 1993*. A greywater diversion device does not require installation approval or an approval to operate if the system meets the following requirements:

- The property is in a sewerage area.
- Installation in accordance with the NSW *Plumbing and Drainage Code of Practise*, 2006.
- Installation in accordance with the requirements of NSW Health, *Grey water Reuse in Sewered Single Domestic Premises*, April 2000.
- The following performance standards are achieved:
  - Prevention of the spread of disease by microorganisms;
  - Prevention of the spread of foul odours;
  - Prevention of contamination of water;
  - Prevention of degradation of soil and vegetation;

- Ensuring that people do not come into contact with untreated sewerage or effluent in ordinary activities on the premises concerned; and
- The minimisation of any adverse impacts on the amenity of the property and surrounding lands.

If a property has an existing OSMS, an approval to operate from Council is required under the *Local Government Act 1993* and its regulations for a greywater diversion device.

## 8.5 Commercial Systems

A Commercial Sewage Management Facility or a 'Package Wastewater Treatment Plant' can be described as any pre-fabricated or pre-engineered treatment system designed to accept and treat small to medium wastewater flows independent of a reticulated sewage system. Any proposal not of a domestic nature, or expected to receive an equivalent daily wastewater volume between 10 equivalent people (EP) and 2500 EP is typically regarded as a commercial sewage management facility, or a package wastewater treatment plant.

If the applicant/proponent intends to install a commercial system, the application must be supported by all information required on the form - "*Application to Install, Construct or Alter a Waste Treatment Device or Human Waste Storage Facility*". This will assist Council in the assessment and determination of the application. Any commercial sewage management facility or package wastewater treatment plant is required to be designed by a suitably qualified and experienced environmental engineer or wastewater consultant. The system must be certified in writing by the qualified environmental engineer or wastewater consultant based on both the design and performance parameters.

The tank(s) must be certified in writing by a structural engineer. This certification must be provided as a supporting document to the application to install submitted to Council. The construction and installation of the system is required to be certified in writing by the installer, and must be provided in writing to Council prior to Council issuing an approval to operate for the system.

NOTE: In the interest of public health all commercial systems shall be fenced to prevent access from the public (fencing shall include lockable gates for maintenance access).

## 8.6 Revoking an Approval

Council reserves the right to revoke or modify any approval issued for the operation of a sewage management system. This may include reducing the duration of time an approval is valid for and/or placing additional conditions on the approval where a problem with a system is identified.

## 8.7 Revoking an Approval in an Unsewered Area

Once sewer becomes available and the property connects to a reticulated sewer system, the existing approval to operate an OSMS for that property is withdrawn.

**Note:** Properties in sewerred areas which have not as yet connected to a reticulated sewer system, the owner is still required to have current approval to operate their OSMS.

## 8.8 Failure to Obtain an Approval to Operate an OSMS

It is an offence under section 626 of the *Local Government Act 1993* to operate a system of sewage management without local government approval. Penalty Infringement Notices can be issued for either operating a sewage management system without approval or in a manner other than what was approved. In addition, the penalty for failing to apply to Council for an approval to operate a system of sewage management is a maximum of 20 penalty units.

## 9.0 Inspection Program

To ensure each on-site sewage management system in the Kempsey LGA is operated so as to protect public health and the environment, Council undertakes inspections of all systems regularly. Under the *Local Government (General) Regulation 2005* all Councils have a duty to monitor the performance of existing systems and take action in relation to defective systems or systems which pose a risk to public health or the environment. Through implementation of corrective works, system replacement or simple changes in system operation, there has been a significant improvement in overall performance.

This Strategy outlines the performance based inspection program currently in operation. A compliance approach for the inspection of OSMS is consistent with Council's approach to its other environmental protection duties, and is considered the most equitable and effective method for ensuring that OSMS do not pose a risk to the environment or to public health.

Through the inspection program council can ensure that individual property owners and occupiers are acting responsibly and managing their sewage systems correctly. Due to the unique environments located in Kempsey LGA, a system can be achieving optimal performance but may still pose a potential risk to public health and/or the environment. For this reason this Strategy makes a distinction between high risk systems and failing systems. High risk systems have been determined from a desktop study however, failing systems can only be identified through the inspection of individual sewage management systems. Although high risk systems for on-site sewage disposal are common in the Kempsey LGA, failing systems are not acceptable and must be upgraded.

### 9.1 Inspection Costs

Council does not charge an inspection fee for the routine inspection of an OSMS if the owner operates and maintains their system in accordance with the manufacturer's maintenance requirements, current health and environmental standards and the approval conditions. Where an owner or tenant fails to maintain their sewage management system in an environmentally acceptable or healthy manner, Council can use the legislative tools previously outlined to require remediation works to be undertaken and an additional reinspection fee will be charged. For Council's schedule of Fees and Charges, go to [www.kempsey.nsw.gov.au](http://www.kempsey.nsw.gov.au)

### 9.2 Notification of Inspection

A property owner will be given notification of Council's intention to inspect their OSMS. Notification is by letter, which specifies the date range when the system will be inspected. This is usually within a 30 day period. If a property owner

wishes to be present at the time of inspection they will be given an opportunity to contact Council and arrange a mutually agreeable time for the inspection to take place.

If the Council Officer attends the property on the nominated date but is unable to either gain access to the sewage management system or complete the inspection, the property owner will be contacted by letter and a suitable time will be arranged for the inspection to be completed.

In circumstances where Council Officers are investigating complaints related to the inefficient or unsafe operation of an OSMS Council Officers will attempt to contact system owners to arrange an agreeable time for an inspection. Inspections may be undertaken without notification to the property owner where Council believes that a system is failing and the officer reasonably suspects that pollution has been, is being, or is likely to be caused.

### **9.3 Assigning a Risk-rating to a System**

Following an inspection of a system by Council Officers the system will be given a risk-rating. Risk-ratings will be assigned by considering the limiting factors and features of the property, not the actual performance of the system at the time of the inspection.

## **10.0 Education Program**

This Strategy recognises the importance of continuing community involvement in the management of on-site sewage issues in the Kempsey LGA. The education program outlined in this Strategy is fundamentally linked to the other programs and will be implemented in conjunction with the inspection and approval programs.

Ongoing education is of great importance and assists individuals to meet regulatory requirements, improve their outlook on achieving sustainability and minimise health and environmental risks associated with the operation of OSMS. Education plays a key role in achieving beneficial and visible outcomes. Council has been proactive in implementing education programs within the community. Reviews of OSMS enable Council to assist owners to better understand how their system works and how they can improve their actions to move towards sustainability over time.

The actions outlined in this Strategy relating to community education aim to satisfy the basic knowledge and awareness requirements of householders and land owners. The OSMS education program aims to continually inform owners and occupiers of issues in regard to:

- Health risks and how to manage them.
- Managing the environmental impact of wastewater.
- System operation and maintenance.
- Waste minimisation principles.
- Where to access information.
- Performance standards of OSMS.

Property owners and householders need to take an active role in the management of their on-site system. In order to do this it is essential that property owners and

householders are aware of their responsibilities and have access to appropriate information and other resources to carry them out. Kempsey Shire Council is undertaking the following measures to raise the property owners and householder's awareness of these issues:

- Developing and distributing "New Owners Kits" including brochures informing owners of their duties and responsibilities as OSMS owners;
- Updating the KSC website with information and relevant forms relating to onsite sewage management;
- Reviewing the forms and letters sent to property owners with a view to making the information disseminated as clear and concise as possible;
- Maintenance information, regulation changes and general OSMS program updates dispensed with the approval to operate mail out; and
- Ongoing education with owners during inspection program.

## **11.0 Conclusion**

This Strategy seeks to develop appropriate OSMS operation and maintenance techniques with owners that satisfy the relevant regulations and guidelines. It is expected that this will be achieved through one-on-one consultation, inspection programs and delivery of educational material. Through effective use of this Strategy, the number of failing systems in Kempsey Shire Council area should be reduced, thus reducing public health and environmental impacts associated with the use of on-site sewage management systems.

It is proposed that a review of this Strategy will be undertaken within 2 years of its implementation and then every 2-3 years on an ongoing basis. The review is intended to assess the information gathered over the inspection program to build a clearer picture of the state of Kempsey Shire Council's on-site sewage management systems.