

Onsite Sewage Management Strategy 2023



Acknowledgement of Country

Byron Shire Council recognises the traditional owners of this land the Bundjalung of Byron Bay, Arakwal People, the Widjabal People, the Midjungbal People and the wider Bundjalung Nation.

The Council recognises that the most enduring and relevant legacy that Indigenous offer is their understanding of the significance of land and the local and deep commitment to place.

This document respects and embraces this approach and acknowledges that our country and resources are precious and must be looked after for future generations.

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1. Introduction

It is good practice for Councils within New South Wales, which have non-sewered areas, to review their On-Site Sewage Management (OSSM) Strategy at appropriate intervals in consultation with the community.

The function of an OSSM system is to collect, contain, treat, assimilate, and process wastewater in a sustainable manner so that the key performance objectives are achieved. [Section 29 \(2\)](#) of the Local Government Regulations state:

- (a) *preventing the spread of disease by micro-organisms,*
- (b) *preventing the spread of foul odours,*
- (c) *preventing contamination of water,*
- (d) *preventing degradation of soil and vegetation,*
- (e) *discouraging insects and vermin,*
- (f) *ensuring that persons do not come into contact with untreated sewage or effluent (whether treated or not) in their ordinary activities on the premises concerned,*
- (g) *the re-use of resources (including nutrients, organic matter and water),*
- (h) *the minimisation of any adverse impacts on the amenity of the land on which it is installed or constructed and other land in the vicinity of that land.*

The focus of Byron Shire Council's OSSM Strategy is to sustainably manage the design, construction, installation and ongoing operation and maintenance of all OSSM systems within the Local Government Area.

The OSSM Strategy affirms the community's objectives and outlines Council's monitoring program and support services to assist homeowners install and maintain their OSSM system in a satisfactory operating condition.

Key components of the OSSM Strategy are identified in the ensuing aims, goals, and objectives. A risk assessment method provides a mechanism for Council to allocate resources, site inspections and to identify priority high risk areas.

The OSSM Strategy supports several wider Council program objectives and initiatives, including the improvement of water quality in waterways, estuaries, protection of drinking water catchments, considering priority oyster aquaculture areas, groundwater and stormwater resource management.

The OSSM Strategy is to be read in conjunction with Council's On-Site Sewage Management Guidelines (OSSM Guidelines), that contain the detailed requirements for the design, construction, installation, replacement, repair, alteration and maintenance of OSSM systems.

Community and homeowner education is an important component of the OSSM Strategy.

1.1 Aims

The aims of this OSSM Strategy are:

- a. to provide a management framework to enable Council to proactively regulate all OSSM systems within the shire
- b. to enhance the capacity of Council to fund and resource the OSSM monitoring and management program
- c. to provide education, support and supervision to help homeowners maintain their OSSM system in a satisfactory condition
- d. to implement a best practice OSSM management program to ensure the protection of public and environmental health and amenity and to use resources efficiently.

1.2 Goals

To achieve the aims the OSSM Strategy goals are to:

- a. maintain a register of all OSSM systems installed within Byron Shire,
- b. ensure the protection of the environment including:
 - waterways including drainage lines, streams, creeks, rivers, dams, estuaries and drinking water catchments
 - land and marine food production and ecological systems
 - considering and closing nutrient cycles
 - groundwater and stormwater resources
 - land, soil and vegetation
 - maintaining barriers that reduce the likelihood of pathogen or pharmaceutical chemical export.
- c. protect public health by minimising the risk of human contact with wastewater and effluent,
- d. restrict vector access into OSSM systems, for example mosquitos, flies and rodents,
- e. ensure that specific site constraints and system locations are considered to ensure suitable OSSM systems are installed and managed within property boundaries,
- f. maintain and enhance community amenity regarding installation and operation of OSSM systems,

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- g. ensure that all applications to install or alter OSSM systems comply with relevant Acts, Regulations, Byron Shire Council Guidelines, Local Approval Policies, Australian Standards and conditions of approvals to install and operate.
- h. promote ecologically sustainable development, for example the efficient use of resources, water and energy in the design and operation of OSSM systems
- i. ensure that resources are provided for Council to develop communication and homeowner education programs
- j. ensure the efficient and effective use of Council resources
- k. promote the safe and beneficial reuse of effluent, when and where suitable
- l. ensure that only suitably qualified and experienced persons design, install and service OSSM systems
- m. develop key performance indicators that will monitor and measure the success of the OSSM Strategy

1.3 Objectives

To achieve the Strategy goals, Council has set the following objectives:

- a. maintain a record of all OSSM systems in the shire including, new applications to install, upgrade or alter and approvals to operate into the OSSM register 70, including inspection and monitoring information
- b. develop and review OSSM Guidelines for the design, construction, installation, replacement, repair, alteration, and maintenance of an OSSM system
- c. develop and implement OSSM communication and education activities targeting homeowners, plumbers and drainers, designers, installers, service agents, real estate agents, solicitors, conveyancers, architects, planning consultants, and the general wastewater industry
- d. educate OSSM owners on the importance of monitoring OSSM systems and to encourage a voluntary compliance attitude
- e. develop and implement an OSSM monitoring program to ensure that all systems are serviced at required intervals and service reports are submitted to Council within acceptable timeframes
- f. develop an OSSM inspection program that is risk based and considers available resources
- g. develop lists of persons suitable for designing, installing and servicing OSSM systems; make the list accessible to the public; and manage the lists through feedback on their performance.

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- h. ensure that all OSSM designs, and installations are certified by suitably qualified persons for compliance with the Council approved plans and conditions and where applicable the manufacturer's commissioning requirements
- i. ensure that, where practical, OSSM systems are designed and managed to use materials, water and energy efficiently during construction, installation and operation
- j. ensure that development approvals in non-sewered areas, i.e. subdivisions, boundary adjustments, dwelling entitlements and change of land use, comply with the OSSM strategy and guidelines.

1.4 Citation

This OSSM Strategy has been adopted by Council and should be read in conjunction with the Byron Shire Development Control Plan and Council's On-Site Sewage Management Guidelines.

1.5 Commencement

This OSSM Strategy applies to non-sewered areas in the Byron Shire from the date of adoption by Council, to all development applications, construction certificate applications, and Local Government Act Section 68 OSSM applications relating to or affected by the matters contained in the OSSM Strategy.

1.6 Corporate Linkages

This OSSM Strategy applies to all land within the Byron Shire. In the event of any inconsistency between this OSSM Strategy and previous Development Control Plans, policies or codes, or previous information issued by Council with respect to OSSM treatment and disposal, this OSSM Strategy shall prevail.

Links to Council's Community Strategic Plan:

Our Vision:

Byron Shire is a 'meeting place': Where people can come together to connect, share, grow, inspire, and create positive change.

Links to Council's Local Strategic Planning Statement:

Our Themes and Key Priorities

A Sustainable Shire

- SP1. Protect and enhance our biodiversity, ecosystems and ecology.
- SP2. Strive to become a sustainable community.
- SP3. Adapt to climate change and build resilience.

A Liveable Shire

- LP1. Support and celebrate our heritage, vibrant culture and diverse lifestyles.
- LP2. Create great places that support and encourage an active, healthy and connected community.

A Thriving Shire

- TP1. Support a strong diversified and sustainable economy based on Byron Shire's unique character, landscapes and important farmland.
- TP2. Develop and implement strategies to support agriculture, agri-business and farmers.

A Connected Shire

- CP1. Ensure infrastructure delivery is aligned with planned growth.
- CP3. Support community wellbeing with appropriate community infrastructure.
- CP4. Provide essential services and reliable infrastructure which meet an acceptable community standard.

1.7 Scope

This OSSM Strategy and Council's OSSM Guidelines are written with and meet or exceed the standards within the *'NSW Environment & Health Protection Guidelines: On-Site Sewage Management for Single Households and AS/NZS 1547 – Domestic On-Site Wastewater Management.'*

The guideline and strategy are also written to consider local environmental features of the Byron Shire such as the high rainfall, volcanic soils, undulating and steep escarpments, interspersed with drainage channels and watercourses, the coastal plain, wetlands and estuarine environments and marine reserves and high biodiversity.

These features present challenges that often require specialised solutions for wastewater treatment and management.

The OSSM Strategy and Guidelines provide a local framework to implement sustainable OSSM practices.

The Protection of the Environment Operations (POEO) Act is relevant to all potential sources of pollution.

Under the provisions of Local Government Act, Councils are responsible for regulating the installation and operation of OSSM systems, which do not exceed 2,500 Equivalent Persons (EP) or 750 kilolitres per day.

The NSW Ministry of Health issues certificates of accreditation for OSSM facilities not exceeding 10 EP or 2,000 litres of daily sewage flow. OSSM systems with capacities above 10 EP and less than 2,500 EP have no formal accreditation process. Council will assess

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proposals for these systems on a case-by-case situation utilising a risk assessment process and referring to wastewater industry guidelines.

Drinking water catchments are subject to specific requirements. If a property is located within these catchment areas, then the Rous Water On-Site Wastewater Management Guidelines are applicable and are to be read in conjunction with Council's OSSM Strategy and Guidelines.

2. Approvals and Development Application Processes

Owners or occupiers of properties with OSSM systems are required to hold an Approval to Operate an OSSM system issued by Council. A separate approval is also required from Council to install, construct or alter an OSSM system. This chapter provides an overview of these approvals and processes for various development application types.

2.1 Local Government Act Requirements

The Section 68 of the Local Government Act 1993 clause states that prior approval must be obtained from Council before conducting the following:

- Part C5 Installation, construction or alteration of a waste treatment device or a human waste storage facility or a drain connected to any such device or facility
- Part C6 Operation of a system of sewage management.

The Division 4 Local Government (General) Regulation 2021 sets out:

- Council's responsibilities and powers to regulate the installation and ongoing operation of OSSM systems.
- the minimum information that must accompany an OSSM application to install or alter.
- the matters to be taken into consideration by Council in determining an OSSM application to install or alter.
- the performance standards to be satisfied before an OSSM approval can be issued.

2.2 Guiding Documents relevant to the Approval of OSSM Systems

Council's *On-Site Sewage Management Guidelines (2023)* provide essential information for designers, installers, homeowners, and the community about how Council approves, manages and monitors OSSM systems. The guidelines are based on contemporary standards and guidance. To ensure ongoing improvement in the management and performance of OSSM systems, it is important to ensure that the information in Council's guidelines and fact sheets are up to date.

Action 2.1

Monitor contemporary guidance on OSSM systems and update Byron Shire Council guidelines and fact sheets as necessary.

Action details

To ensure Council provides contemporary guidance on OSSM systems:

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1. Update Council's *On-Site Sewage Management Guidelines* every 10 years or in response to any significant change to on-site sewage management technology or procedures.
2. Review Council's OSSM fact sheets every 5 years and update on an as-needs basis.

2.2 Approval to Install/Construct/Alter an OSSM System

An approval to install, construct or alter an OSSM system (often known as a 'Section 68 application') is required for the installation, upgrading or alteration of an OSSM system including the connection of new drains to an existing OSSM system or for new development that results in an additional load on the system.

An application for approval to install, construct or alter an OSSM system is to be submitted to Council via the [NSW Planning Portal](#) with payment of appropriate fees prior to any work commencing. Alterations include any drains that are proposed to be connected to the existing system, for example a new ensuite.

It is an offence under the [Local Government Act s627](#) to undertake work to install/construct or alter an OSSM system without prior written approval from Council.

2.3 Emergency works

Emergency works are those that if delayed have high potential for adverse off-site public and or environmental health and may be necessary from time to time to mitigate those imminent impacts.

Emergency works must be notified to Council in writing (emails are acceptable) for approval and may still require payment of fees and inspections. The works must be implemented to ensure compliance with the Byron Shire Council guidelines for onsite sewage management. Details of the works conducted is still required when completed.

2.4 Approval to Operate an OSSM System

It is an offence under the [Local Government Act s626](#) to operate an OSSM system without a current Approval to Operate (ATO) issued by Council.

This is an ongoing approval through Council that is issued to the property owner and does not 'attach' to the property or OSSM system (like a driver's license attached to a person, not the car). Owners require an approval to operate per OSSM system.

An ATO relating to a new or upgraded OSSM system will only be issued when all the following have been satisfactorily completed:

- An application has been submitted to Council complete with necessary information and payment of fees,
- For new installations or alterations when all plumbing certification documentation has been submitted to Council
- as Council sees fit.

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New owners of a property with an OSSM system need to apply for an Approval to Operate within two months of the date on which the land is transferred to enable continued operation of the OSSM system without approval until the application is finally determined (based on requirements under Section 47 of the Local Government (General) Regulation 2021).

Existing ATO's are automatically renewed annually with payment of the fee for service charge (s608 Local; Government Act) in the annual rates notices.

Refer to Chapter 5 regarding an action to ensure all OSSM systems have a current Approval to Operate.

2.5 Approval Processes for Different Development Applications

2.5.1 New Dwellings and Developments

New dwellings / developments with an OSSM system require an application, commonly called a s68 application, for approval to install, construct or alter an OSSM system to be submitted to Council. Details of supporting information required to be submitted with the application are detailed in Council's *On-Site Sewage Management Guidelines*.

An Approval to Operate certificate must be issued by Council prior to the issuing of an interim or final occupation certificate.

2.5.2 Alterations and Additions to Existing Developments or Change of Building Use

For developments/dwellings with an existing OSSM system an application for approval to install, construct or alter an OSSM system is required for any of the following instances:

- the alteration / addition or change of use that results in an additional load on the existing OSSM system.
- the alteration / addition or change of use involves connection of new drains to the existing OSSM system (even if it does not impose any additional load on the system).
- the alteration / addition or change of use involves a modification to / replacement of the existing OSSM system.

If the alteration / addition or change of use does not involve any of the above, then an 'approval to install, construct or alter' is not required. However, a service and or condition report less than 12 months old may be required by Council to indicate the existing OSSM system is operating satisfactorily.

Where Council has no record of an approval to install an OSSM, or the systems include an absorption trench, Council recommends that those systems are upgraded to the standard required by Council's *Onsite Sewage Management Guidelines* whenever additional development is proposed.

Alternatively, a thorough assessment of all systems components including the buried infrastructure is required to be submitted by a plumber or designer. The assessment is to be

undertaken with the appropriate tools (camera or cross section excavations) and the information submitted is to include accurate diagrams and dimensions. Council will determine from that information if an upgrade or replacement is still required.

When an approval to install, construct or alter an OSSM system is required for alterations and additions, the approval must be issued by Council prior to the issuing of a construction certificate for any building or construction work.

For a change of building use, an Approval to Operate certificate must be issued by Council prior to the issuing of an interim or final occupational certificate.

2.5.3 Subdivision/Boundary Adjustments/Rezoning Applications

For development applications (DA's) involving the subdivision of land into multiple parcels, an OSSM Design Report or land capability assessment must be prepared and accompany the DA.

The OSSM Design Report or land capability assessment will need to justify that an OSSM system can be installed on the new parcel/s of land and that the requirements Council's Development Control Plans and Local Environmental Plan are met or exceeded.

Consistent with sustainability goals Council recommends that all allotments on a subdivision or sites on multiple occupancy are designed to enable passive or low-energy style OSSM systems.

Details of information requirements for an OSSM Design Report or land capability assessment are addressed in Council's On-Site Sewage Management Guidelines.

3. Quality Control of Service Providers, Approvals and OSSM Systems

The performance of OSSM systems can be variable due to faults arising from initial planning and design through to operation by householders and service agents. The multitude of stakeholders involved in planning, design, assessment, installation, certification and operation can make quality control more complex. This chapter provides quality control measures for practitioners involved in the design, installation and servicing of OSSM systems.

To help provide consistent and satisfactory quality output from service providers, Council has adopted recommendations in AS/NZS 1547:2012 with respect to suitable qualifications for each element of the OSSM design and installation process and for the ongoing servicing of OSSM systems.

3.1 Site evaluators and soil assessors

Site evaluators and soil assessors may include professional engineers, soil scientists, environmental health scientists, plumbers with appropriate training, competence, and experience in design and installation practice. Site evaluators and soil assessors must ensure that they:

- a. are appropriately trained
- b. are familiar with any regulatory requirements for site evaluation
- c. are responsible for all work to evaluate the capacity of a site and its soil for accepting treated wastewater
- d. certify that the evaluation procedures have been undertaken in accordance with AS/NZS 1547:2012 and Council's *On-site Sewage Management Guidelines*.

3.1.1 OSSM Designers

Designers may include professional engineers, soil scientists, environmental health scientists, or plumbers with appropriate training, competence, and experience in design and installation practice. Designers must ensure they:

- a. are appropriately trained
- b. prepare and certify OSSM Design Reports and land capability assessments in accordance with Council's *On-site Sewage Management Guidelines*
- c. are familiar with current OSSM legislation and regulation, these guidelines, and relevant Australian Standards
- d. prepare a draft Operation and Maintenance Manual based on the findings of the OSSM Design Report
- e. designers must state their qualifications within every design report.

3.1.2 OSSM Installation Contractors

Installation contractors may include licensed plumbers, A licensed plumber is required as part of the installation process. Plumbers must ensure that they:

- a. are appropriately trained – it is recommended that plumbers attend an appropriate accredited training program for installing OSSM systems
- b. consult with the OSSM Designer on the intention of the design and requirements essential to achieving design integrity
- c. arrange inspections of the installation with Council certifiers
- d. compile the final Operation and Maintenance Manual and provide copies together with the OSSM Approval to the owner and resident following installation or upgrading of an OSSM system
- e. provide Council with copies of the sewer services and work as executed diagrams.

Inspections of OSSM plumbing and drainage works associated with installations or alterations can only be conducted by Council Officers.

3.1.3 Servicing Agents for OSSM Systems

OSSM servicing agents are engaged by property owners.

Certain OSSM systems or elements can be adequately serviced by an NSW Licensed Plumber. For more complex OSSM systems for example aerated treatment systems Council requires the servicing agent to have specific training and accreditation. [Action 5.1](#) lists the accreditation requirements of servicing agents for different OSSM systems and components.

All OSSM electrical work is to be performed by a licensed electrical contractor and in accordance with all appropriate electrical regulations and standards.

Duties of OSSM servicing agents are addressed in Council's *On-site Sewage Management Guidelines* and NSW Health Servicing of Single Domestic Secondary Treatment Sewage Management Facilities Advisory Notes.

Action 3.1:

Introduce a process and register of authorised service agents for certain types of OSSM systems.

Action details

Council will introduce a process and register of authorised servicing agents for OSSM systems that include any of the following elements:

- Aerated Wastewater Treatment Systems (AWTS's)
- any NSW Health accredited system
- sub-surface drip irrigation systems
- surface irrigation systems.

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To become a Council authorised OSSM servicing agent the following is required:

1. Completion of an appropriate course conducted by a registered training organisation
2. Minimum six months relevant experience
3. Public liability insurance (\$10 million).

Council will:

1. establish an application process for authorisation of OSSM servicing agents
2. establish a process for authorised servicing agents to maintain accreditation
3. maintain a register of authorised servicing agents.

3.2 Certification of Design and Installations

To verify that the various stages of design and installation have been satisfactorily completed, Council requires the following certification for quality control (refer also to Table 3.1):

1. **Certification of OSSM Design Report:** This certification is to be completed by the OSSM designer within the design report verifying that the OSSM design complies with the requirements of Council's *On-Site Sewage Management Guidelines*.
2. **Certification of Minor Alterations:** Council's certifiers and/or environmental health officers may approve in writing any minor alterations to the approved design made in writing to the certifiers. Any alterations to the approved installation that are not of a minor nature will require an amended application to be lodged with Council.
3. **Certification of Installation and Commissioning:** The OSSM installation contractor must verify to Council via a certificate of compliance that installation of the OSSM system has been completed in accordance with the approval and any minor alterations.

The certificate of compliance must be accompanied by a sewer services diagram and work as executed drawings to scale before or when booking the final inspection.

Certification of OSSM Systems that Council can approve for installation

NSW Health administers the certification of accreditation of sewage management facilities and vessels in accordance with Clause 41 of the Local Government (General) Regulation 2005. A certificate of accreditation may include specific requirements for the installation, operation and maintenance of the accredited OSSM system.

NSW Health issues certificates of accreditation for OSSM facilities not exceeding 10 EP or 2,000 litres of daily sewage flow.

To ensure the provision of quality control of OSSM systems, Council will only approve systems that have a certificate of accreditation with NSW Health, excluding reed bed systems.

Reed bed systems are not accredited by NSW Health. Council will approve reed bed systems that are designed and installed to contemporary, best-practice standards.

3.3 Staged development

A s68 application design proposal that is made to accommodate future developments should indicate that it is staged development and what the stages are.

A final certificate will not be issued if all stages are not completed, and staging has not been indicated.

3.4 Commercial OSSM Treatment Systems

Commercial OSSM systems are classified by Council as OSSM systems with capacities above 10 EP but less than 2,500 EP. These systems typically service holiday accommodation premises, tourist developments, restaurants, cafes, and processing facilities. The wastewater generated from these premises can vary significantly from the wastewater generated by a typical domestic residence.

Commercial systems must be designed by persons with recognised experience in commercial system design. Details of that experience must be included in the design reports.

Applications for approval to install Commercial systems will not be accepted without consideration of influent quality and relative trade waste or pre-treatment devices included.

Conditions pertaining to trade waste management and effluent quality monitoring and reporting may be applied as part of any approval to install commercial systems.

Design reports for tourist accommodation that do not include laundries must discuss the alternative laundry arrangements.

4. Sustainable Development

Council's goal is for all buildings connected to OSSM systems to install water and energy efficient plumbing products to minimise water and energy use, minimise wastewater generation, assist in the satisfactory long-term operation of OSSM systems.

4.1 Water Efficiency

Reductions in wastewater loadings on OSSM systems is encouraged to help extend the life of OSSM systems and can be achieved with the use of water efficient fixtures and appliances in the dwellings including:

- Showerheads
- Toilets
- Kitchen taps
- Bathroom taps
- Dishwashers
- Washing machines.

For new dwellings and alterations / additions to homes of \$50,000 or more, a BASIX certificate is required which will require the installation of water efficient fixtures.

There may be instances where a new OSSM system or upgrade is required that is not related to a new dwelling or dwelling renovation. In these instances, it is desirable to install water efficient fixtures to minimise the loading on the new or upgraded OSSM system. The installation of water efficient appliances such as dishwashers and washing machines is also encouraged.

The WELS water rating label provides water efficiency information for water-using products. It allows consumers to compare products and rewards manufacturers and retailers who make and stock water efficient models.

The use of in sink food waste disposal systems (for example, InSinkErators) is not supported.

Action 4.1:

For upgrades or replacements of OSSM systems that do not require a BASIX certificate the approval to install will recommend the inclusion of water efficient fittings and appliances.

Action details

For any application for approval to install, construct or alter an OSSM system Council will recommend the installation of water efficient fixtures with the following minimum WELS* star rating:

- Showerheads - 4-star rating
- Toilets - 4-star rating

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- Kitchen taps - 5-star rating
- Bathroom taps - 5-star rating.

Note: * Refer to the [Australian Government Water Efficiency Labelling and Standards \(WELS\) Scheme and Energy Rating](#) website to compare the water and energy efficiency of different products.

4.2 Energy Efficiency

The adoption of energy efficient measures and passive OSSM system, passive meaning no energy input is required to operate the OSSM associated with the OSSM system is encouraged.

Design reports must include a statement acknowledged by the system owner as to the reason why a passive system could not be utilised in the proposal.

Proposals that do not include that statement and acknowledgment may not be accepted.

The OSSM Designer must consider measures to minimise energy use such as:

- minimising pumping or aerating requirements
- adoption of treatment systems that minimise or avoid energy use (for example reed bed systems, systems that operate under gravity, passive systems)
- energy efficient pumping units
- Minimise moving parts and replacement costs
- Minimise servicing requirements.

5. Ongoing Management and Monitoring

Council will implement both a monitoring and auditing program to ensure the ongoing satisfactory performance of on-site systems.

5.1 Maintain Database of OSSM Systems

Council currently has a database of registered OSSM systems. Ongoing maintenance of the database is essential to monitoring of OSSM systems.

Action 5.1

Ongoing maintenance of OSSM database.

Action details

Council's database of OSSM systems (Authority register 70) will be maintained and updated to include the following data for each OSSM system/property:

- details of OSSM systems including wastewater loadings / details of connected development
- date of installation and subsequent upgrades / alterations
- records of approvals to install, construct or alter
- details / records of Approval to Operate
- schedules and records of servicing reports
- risk classification of OSSM system (refer to [Action 5.2](#))
- inspection records
- registration of systems installed without approval.

5.2 Risk-based Audit Inspection Program

Previous inspection programs and catchment-based community engagement and risk assessment programs have identified that homeowner engagement and education is the preferred operator engagement method.

The inspection programs revealed that new owners:

- may never have used OSSM before.
- are unaware of their obligations when managing a system that has potential to pollute or create adverse health impacts for themselves or the public.
- appreciate our advice plans and records and written information and onsite advice.

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- are more likely to actively engage, protect and maintain their systems when they know where it is in their backyard and how to look after it and understand that not looking after it can prove costly.
- are more likely to engage with Council without fear of facing regulative actions.

Action 5.2

Community engagement and risk assessment process.

Action details

Council will continue to engage with new owners of OSSM systems and continue to apply a desktop and site inspection risk assessment / evaluation performed to identify site features and constraints. Each of those properties will then be allocated a corresponding risk level (i.e. high, medium or low).

The risk method process will identify all applicable site characteristics on a property and evaluate the level of constraint for each. The horizontal and/or vertical setback distance from a sensitive receptor to the OSSM system (including the effluent land application area) will be the key element in determining the level of risk.

5.3 Servicing Requirements

Routine servicing of OSSM systems is considered critical to ensure their performance and compliance with permit conditions and minimise their potential for impacting public health, amenity and the environment.

Servicing is to be conducted at regular intervals in accordance with:

- NSW Health Accreditation for an OSSM system (for example, servicing at three monthly intervals for an AWTTS); and/or the OSSM Approval to Operate conditions or the manufacturers recommendations.
- at a minimum of three-monthly intervals for any electrified systems if not specified in the Certificate of Accreditation.

Action 5.3

Ensure routine and effective servicing of all OSSM systems.

Action details

To ensure routine and effective servicing of all OSSM systems the following will be undertaken:

- servicing frequency and servicing report records for each OSSM system will be incorporated into Council's database to trigger alerts of late service reports.

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- servicing only to be undertaken by service persons described in [Action 5.1](#). Owners can choose to engage servicing agents to manage any OSSM system, for example general maintenance of standard septic tank systems.
- service agents must submit a Service Report to Council and the owner / OSSM system 'operator' within 14 days of servicing the system or component. The service agent is also required to maintain a copy for their records.
- Service Report will be in a form similar to the guidance in NSW Health Advisory Note 5 - Servicing of Single Domestic Secondary Treatment Sewage Management Facilities (SMF) – refer also to Council's *On-Site Sewage Management Guidelines*.
- If a service agent observes that an OSSM system failure has been caused by improper use of the system, the service agent is to consult with the owner / 'operator' to ensure preventative actions are undertaken.

If the problem continues, then the matter is to be reported to Council for appropriate action. When there is an identified pollution incident, (for example effluent discharge), the service agent is required to notify Council. Any of the above is to be recorded in the service report. Council is to record key matters in the OSSM database.

5.4 Education of Owners

A key strategy to assist with satisfactory performance of existing OSSM systems is to educate homeowners to help provide an understanding of the operating requirements of OSSM systems; the need to adjust household activities accordingly, the importance of ensuring servicing of the system; and approval requirements of Council regarding upgrades or alterations to the system.

Education material is currently disseminated to homeowners in the following ways:

- fact sheets available on Council's website
- operation and maintenance manuals / information provided by OSSM installation contractors for new installations / upgrades or alterations of existing OSSM systems
- operation and maintenance information attached to Council issued Approval to Operate certificates
- Informal requests for advice to Councils' environmental health officers
- Onsite inspection programs for new owners or catchment-based programs implemented from time to time
- compliance inspection pertaining to customer requests.

Action 5.4

Ensure ongoing education of homeowners

Action details

Council will:

- continue to disseminate information regarding homeowner responsibilities on an annual basis via rate notices
- update fact sheets as necessary on Council's website.

6. Compliance and Enforcement

When Council conducts a OSSM system site inspection and confirms that the system is operating un-satisfactorily (for example: defective, failed system or effluent run-off) then the following enforcement steps are undertaken to ensure that the OSSM system is rectified promptly and returns to satisfactory operation.

- 1 Council sends the property owner a warning / defect letter that details what is required to bring the system into satisfactory operation with a due by date according to the risk for example high risk is a short compliance period.
- 2 If no response is received, then a reminder letter is issued with a shorter compliance period.
- 3 A failure to respond to the reminder letter will result in a Prevention Notice under the Protection of the Environment Operations Act or a Notice of Proposed Order / Order under the Local Government Act
- 4 If the property owner does not comply with the notices Council may either issue penalties and or engage a solicitor to start proceedings to have the matter heard in either the Land and Environment Court or the Local Court.
- 5 Depending on the risk to public and environmental health or the potential deliberate action to pollute, Council may take more serious enforcement action much earlier in the process described above.
- 6 An owner may be required to upgrade the OSSM system in accordance with Council's *Onsite Sewage Management Guidelines* when an inspection reveals:
 - a. OSSM system of unknown age;
 - b. OSSM system with unknown approval to install status;
 - c. the OSSM system is older than 20 years; or
 - d. unknown land application areas.

7. Approval to Operate Renewal and Annual OSSM Management Fee

For any property with an OSSM system, Council charges the property owner an annual fee under 608 (2) of the Local Government Act to assist with the funding of the OSSM Fee-for-Service Program. The fee is charged as a separate item on the annual rates notice. The fee contributes to the development and dissemination of education material, OSSM inspections and the acquisition of resources to implement the OSSM Program objectives.

The fee is based on per system or per dwelling basis and for commercial systems based on litres per equivalent tenement.

The fee for service also entitles land owners to engage with Council for impartial information and advice on their existing OSSM and any proposals to alter or replace their system before an application is submitted to Council.

OSSM Program - Key Performance Indicators

The OSSM Program provides quarterly statistics to Council as part of the Development Environmental and Health Group quarterly reporting process. The statistical reports are a gauge confirming if compliance with the Key Performance Indicators is being achieved. A summary of OSSM statistical information is also included in Council’s State of the Environment Annual Report.

Key Performance Indicators	Measurement (Task Actioned / Completed)
Response to customer request for BSC management action (for example effluent runoff complaints where there is public and environmental health risk)	Within 24 hours
Response to customer request for BSC management action, for example OSSM complaints where there are no apparent public and environmental health risk	Within 72 hours
Timeframe for service agents to send their Aerated Wastewater Treatment System (AWTS) completed service reports to BSC. (In future all types of OSSMs service reports will need to be lodged to BSC within this timeframe)	Within 14 days
BSC perform audit of AWTS service reports overdue (>30 days) – letter to owner if overdue in first instance, enforcement process to follow if needed	3 audit reports run/year

Key Performance Indicators	Measurement (Task Actioned / Completed)
Statistics of OSSM inspections performed on existing systems and provide breakdown of inspection results - compliances, non-compliances and failures	Quarterly 4 audit reports run/year
Statistics of OSSM new installations or replacements competed (installed)	Annually

7. Acronyms

Acronym	Full description
AS / NZS	Australian/New Zealand Standard™
ATO	Approval to Operate
AWTS	Aerated wastewater treatment system
DA	Development Application
DPI	NSW Department of Primary Industries
EHP	Environment & Health Protection (in reference to the Environment & Health Protection Guidelines (Department of Local Government, 1998))
EP	Equivalent population or Equivalent persons
ETA	Evapotranspiration beds
LEP	Local Environmental Plan
LPED	Low pressure effluent distribution
OSSM	On-site sewage management - used interchangeably with OSMS, SMF and septic system
OSMS	On-site sewage management system (commonly used by other Councils)
POAA	Priority oyster aquaculture area
POEO Act	Protection of the Environment Operations Act
SDI	Sub-surface drip irrigation
SSI	Sub-surface irrigation
SMF	Sewage management facility

8. Glossary

Term	Description
Aerated Wastewater Treatment System (AWTS)	a wastewater treatment process typically involving settling of solids and flotation of scum; oxidation and consumption of organic matter through aeration; clarification – secondary settling of solids, and disinfection of wastewater before irrigation.
Aerobic	dissolved or free oxygen is present
Anaerobic	dissolved or free oxygen is not present
Anaerobic digestion	Anaerobic digestion is a sequence of processes by which microorganisms break down biodegradable material in the absence of oxygen.
Blackwater	human excreta and water grossly contaminated with human excreta, for example toilet wastewater (although not strictly water-based, human excreta entering waterless composting toilets is considered as 'blackwater')
Domestic wastewater	water arising from household activities, including wastewater from bathrooms, kitchens and laundries
Effluent	treated wastewater
Equivalent population or Equivalent persons (EP)	a measure typically used in the design of wastewater management systems which equates flows or pollutant strengths to what is typically generated by a person, for example a total wastewater flow of 490 litres per day from a dwelling with roof water supply can be described as a 3.5 EP loading where the typical flow per person is 140 litres per day
Evapotranspiration	the process by which water is transferred from the land to the atmosphere by evaporation from the soil and other surfaces and by transpiration from plants
Greywater	domestic wastewater from sources other than toilets, including washing machines and dishwashers. Also generally excludes kitchen waste. Also sometimes termed 'sullage'.
Human excreta	human faeces and urine
Land application area	the area over which treated wastewater is applied i.e. the disposal area

Term	Description
On-site sewage management (OSSM)	treatment and use of all wastewaters generated within a household, completely within the boundary of the premises
Sewage	wastewater arising from premises and may contain waste arising from toilets and similar fixtures, showers, baths, hand basins, clothes washing machines, laundry tubs, kitchen sinks and dishwashers and commercial processes Sewage includes blackwater and greywater but not stormwater
Sewage management	any activity carried out for the purpose of holding or processing, or reusing or otherwise disposing of, sewage or by-products of sewage
Sewage management facility (SMF)	a human waste storage facility or a waste treatment device intended to process sewage (clause 3 Local Government (General) Regulation 2005).
Silver Bullet	Colloquial term for the document: <i>Environment & Health Protection Guidelines, On-site Sewage Management for Single Households</i> (Department of Local Government, 1998)
Sludge	mainly organic semi-solid product produced by wastewater treatment processes
Wastewater	liquid waste containing solids generated by a domestic premises and includes sewage, greywater and blackwater
Waterless composting toilet (Humus closet, biological toilet)	Waterless system that uses the principle of composting to break down human excreta to a humus-type material. The liquid fraction is evaporated or directed to an appropriate management system
Wet composting toilet	treats all household wastewater and putrescible household organic solid wastes such as food waste. Uses the principle of aerobic composting to break down the solid waste; the liquid component is directed to a land application system after passing through the pile of solids

9. References

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