

# DELIVERING APPROPRIATE RURAL WASTEWATER TREATMENT – POLICY FRAMEWORK AND ACTION PLAN

## Background

The EU Water Framework Directive (WFD) was introduced in 2000 for the purpose of establishing a common framework for the sustainable management of Europe's water environment. The framework was subsequently extended by two daughter Directives: the Groundwater Directive introduced in 2006 and the Priority Substances Directive introduced in 2008.

The WFD was transposed into Scots Law by the Water Environment and Water Services (Scotland) Act 2003. This introduced a framework of river basin management planning (RBMP), requiring objectives to be set for every water body in terms of ecological status. In order to help achieve these objectives, the Act also gave Scottish Ministers powers to introduce regulations to control activities that can have an adverse effect on the water environment. Such controls have been put in place through the Water Environment (Controlled Activities) (Scotland) Regulations 2011 (CAR), which control a range of activities including abstraction, discharges and engineering activities.

Recognising that a purely regulatory approach would not facilitate the development of more strategic solutions where required, the Act also introduced an obligation for Ministers, the Scottish Environment Protection Agency (SEPA) and certain 'responsible authorities' to work together to secure compliance with the WFD. In their [Policy Statement](#) of 2008, Scottish Ministers set out their vision of an integrated approach to help maximise the sustainable use of Scotland's water environment. Key public bodies such as local authorities, SEPA and Scottish Water are required to work collaboratively to deliver appropriate solutions to more complex water quality issues.

The current drive to align service provision across our key public bodies strengthens Ministers' stated aim of an integrated approach to achieving a sustainable and good quality water environment. This, coupled with an equally strong emphasis on prevention rather than remediation, challenges us to change our approach from one which is essentially enforcement-based to a more strategic one which addresses issues at source and takes account of cumulative pressures.

## Rural wastewater treatment - introduction

In rural Scotland, privately-owned individual or community septic tanks are widely used for the collection and treatment of household wastewater. Septic tanks are a valid form of wastewater disposal and are often the most appropriate form of treatment in rural areas.

However, research suggests that the contribution from sewage discharges in rural areas to total pollutant loadings can be as much as 10%. Where they are properly maintained individual septic tanks rarely cause deterioration at a water body scale; however cumulatively these can have an adverse impact on surface and groundwater quality. Potential impacts on human health is a particular consideration in catchments where drinking water supplies, shellfish, and bathing waters are at risk from pollution from such sources. There is also an increasing drive to reduce marine litter from sewage discharges in order to meet our Marine Strategy Framework Directive obligations.

It is a requirement under CAR that the discharge from a septic tank is registered with SEPA. The registration conditions require that 'the effluent treatment system shall be maintained in accordance with the manufacturer's or designer's recommendations, and in any event, in good working order'. Good practice suggests that septic tanks should be emptied every 2 or 3 years. A number of issues have been identified which need to be addressed with respect to privately-owned systems:

- individual/ community septic tank owners failing to register their tank with SEPA
- individual/ community septic tank owners failing to carry out routine maintenance/ emptying
- some discharges with inadequate or no treatment still in existence
- some inadequacies with existing powers and decision-making systems, which can prevent the most effective solution from being delivered

It is recognised that the impacts from these inadequacies may not pose a significant risk to the water environment in general; and that resources must be targeted at the greatest areas of risk. In the interests of equity, it is important that proportionate steps are taken to ensure that all sources of pollution are well-managed. Septic tank owners have a role to play alongside land managers in minimising pollution in their catchment and improved management of septic tanks can contribute to that goal.

The issues described above reflect problems at two very different scales. A range of targeted measures could help in that regard:

- encouraging responsible house-holder behaviours generally
- promoting alternative solutions in areas of increased risk, including consideration of community-based wastewater solutions where appropriate

This paper, developed in conjunction with SEPA and Scottish Water, outlines a series of steps to improve the situation, within the wider RBMP context.

## **Proposed way forward**

### **1. Understanding the scale of the issue**

The current register of septic tanks held by SEPA is known to be incomplete. The number of unregistered tanks is difficult to estimate but it is thought that around 40% of all tanks remain unregistered. SEPA needs complete data in order to help identify where pollution problems are being caused or exacerbated by discharges from septic tanks; and to ensure that solutions are equitable across all sectors including the general public. Although the conveyancing system picks up unregistered tanks as properties are sold over time, this is not a particularly efficient means of data-gathering.

As a starting-point, an exercise to obtain better information regarding the location of septic tanks is required. The purpose of such an exercise is two-fold:

- to establish the location of septic tanks, and identify those septic tank owners who have not registered with SEPA
- to identify likely areas which may benefit from a targeted publicity campaign on septic tank maintenance in order to reduce pollutant loadings from these sources

SEPA, in conjunction with Scottish Water, relevant local authorities and others, should take forward a data gathering exercise.

### **2. Encouraging responsible maintenance**

House-holders are responsible for ensuring their wastewater systems are appropriately maintained. Evidence suggests that many house-holders may be unaware of their legal obligations and the consequences of not maintaining their septic tank and drainage system.

Septic tank owners should register their wastewater discharge with SEPA, and carry out routine emptying on average every 2 or 3 years.

SEPA should develop and carry out an appropriately targeted awareness-raising campaign, aimed at reminding septic tank owners of their legal obligations, and drawing their attention to an appropriate range of service providers.

Scottish Water and relevant local authorities should provide appropriate support.

Scottish Government should consider whether a home-owners guide for new-build homes may be a helpful tool.

### **3. More effective enforcement**

Failure to carry out routine maintenance is subject to enforcement action by SEPA under CAR. However in respect of delivering the policy objectives outlined in this paper, the current regulatory and enforcement systems may not be adequate in two respects – they focus on the ‘responsible person’ and on evidence of environmental harm, principles which do not readily apply in cases of shared ownership or cumulative impacts.

It is proposed that SEPA should have a range of new general civil enforcement powers, which are expected to prove both more timely and more effective. As well as issuing an enforcement notice under CAR requiring remedial action to be taken, SEPA should be able to issue fines to owners of both individual and community systems, to encourage the required remedial action to be taken. A consultation on the better environmental regulation programme recently sought views on potential approaches.<sup>1</sup>

Scottish Government should seek more flexible enforcement provisions for SEPA.

SEPA should use these powers where reasonable and appropriate to improve householder compliance and help the most sustainable solutions to be adopted.

### **4. Developing alternative approaches**

Wastewater solutions must provide affordable solutions at the most appropriate scale. It is recognised that in many cases septic tank systems can be the most sensible solution for a household or small community, and that small scale solutions can extend the effectiveness of such systems.

However there is evidence that cumulative outputs from a number of discharges pose an increased risk to the water environment, public health or aesthetic interests. Considering wastewater issues at a community or catchment level may be the most cost-effective way of reducing such cumulative impacts; and an overall reduction in pollutant loadings may also help reduce the need for carbon-costly solutions elsewhere in a catchment. Suitable solutions might include small public systems or privately owned community systems.

Cumulative pressures should be considered as matter of course in planning new or expanding rural development. Local development plans could seek to reflect any remaining capacity for additional septic tanks, or highlight areas where community solutions are the preferred option.

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<sup>1</sup> [An Integrated Framework for Environmental Regulation](#) consultation.

Scottish Government, SEPA, Scottish Water and planning authorities should seek to identify possible improvements to current planning procedures with a view to minimising impacts from wastewater discharges in rural areas, whilst continuing to support rural development.

These should seek to identify any tipping point beyond which a community solution would be more sustainable than the installation of additional septic tanks within a community or catchment. It may be useful to trial this approach in known hot-spots, working with relevant local authorities.

In respect of existing rural development, where there is evidence of cumulative impacts causing environmental, aesthetic or public health problems, SEPA and Scottish Water should explore whether a community solution might be a more sustainable alternative to individual septic tanks.

Priority should be given to areas where evidence of cumulative impacts is greatest. There are a small number of hot-spots where public health considerations and aesthetic interests should be given increased priority alongside environmental considerations in developing and delivering Scottish Water's Quality and Standards investment programme (Q&S). For instance there is evidence that some coastal communities could benefit from such an approach. The full range of financial considerations should also be taken into account in decision-making to ensure cost-effective solutions are developed.

Currently householders have a choice to connect to a public system, however this approach may not be sustainable in all circumstances. Where a community solution is determined to be the most cost-effective and environmentally sustainable solution for a community whose cumulative environmental impact is significant, it is considered reasonable to expect relevant households to connect to the new system.

Scottish Water and SEPA should work together, in conjunction with Scottish Government and planning authorities, to develop a set of criteria to inform decision-making on priorities for action; identify a prioritised list of communities or catchments which require more community-based solutions in order to meet wider policy aims; and take forward appropriate improvement action through the Q&S process.

Scottish Government should consider the financial implications of implementing this policy approach, in tandem with decisions on Scottish Water's funding.

Relevant householders and small business owners would be expected to make an appropriate contribution to the achievement of these goals.

## 5. Facilitating sustainable community solutions

In some instances, a community may be served by a single septic tank. As the owners of properties draining into that tank are jointly responsible for maintenance, it can prove difficult for pro-active owners to secure agreement from the others to carry out maintenance, and this can result in the tank not being maintained. The lack of financial arrangements between owners can prove a barrier in this regard. The forthcoming Water Resources (Scotland) Bill will introduce a suite of provisions to enable pro-active owners to arrange for the tank to be emptied, and to recover an appropriate share of the costs from the other owners. Ultimately recourse to the courts may prove necessary, however it is hoped that this facility will encourage an increase in responsible maintenance.

Owners of community tanks can request that Scottish Water adopt the community tank into its asset base, provided the tank is of an acceptable standard; and Scottish Water would be responsible for its future maintenance. Under those circumstances the community draining into that tank would in effect be joining the public sewerage network and be subject to standard sewerage charges.

There could also be an option, in extremis, for Scottish Water to adopt community tanks, where house-holders routinely fail to carry out their responsibilities and there is evidence of adverse impacts. Before such action was taken the full range of financial implications would need to be considered, including those for other Scottish Water customers.

Scottish Water and SEPA should identify the circumstances under which it may be appropriate for Scottish Water to adopt community tanks.

Scottish Government should consider the financial implications of implementing this policy approach in tandem with decisions on Scottish Water's funding, including any investment required to upgrade tanks to the appropriate adoption standards

### Summary

This paper identifies a number of current issues in connection with discharges of wastewater in rural areas, and outlines the first steps towards developing a more effective approach.

Septic tank owners are expected to manage their septic tank discharges responsibly, and our key public bodies – SEPA, Scottish Water, and local authorities – are expected to work more collaboratively to increase the overall effectiveness of our approach to wastewater management in rural areas. These proposals are intended to reduce pollutant loadings and generally improve the condition of our rural environment through the delivery of cost-effective wastewater solutions.