

Comment for planning application WSCC/007/24

Application number

Name

Address

Type of Comment

Comments

The Staplefield wetland project promises to be an energy efficient way of treating wastewater that contributes to plans to reach net zero while adding to local biodiversity. However, it is an unknown technology that needs careful maintenance and monitoring.

Since this proposal entered the planning system, there has been a significant report on the subject. Published in May 2024, "Testing the waters - Priorities for mitigating health risks from wastewater pollution" comes from the National Engineering Policy Centre.

The report - developed by the Royal Academy of Engineering in partnership with the Chartered Institution of Water and Environmental Management, Institute of Water, Institution of Civil Engineers, Institution of Chemical Engineers and Institution of Mechanical Engineers, under the National Engineering Policy Centre - covers the wider issue of wastewater treatment.

It has a section on Constructed Wetlands. This describes the technology and warns that "There is currently limited evidence on operational lifetimes and maintenance requirements."

It also highlights some of the unknowns in what is essentially an untried approach in the UK. As such the Staplefield wetland is an opportunity to fill gaps in the water industry's knowledge. For example, in a section on "Reaching net zero", the report says:

"Wetlands are a low carbon solution and healthy wetlands are net carbon sinks; however, unhealthy or disturbed wetlands are net carbon sources."

It then adds:

"Further research is needed to understand the carbon implications of constructed wetlands."

A section on "Need to improve ecology" says that a wetland "Provides habitat and nutrient removal, though studies are limited."

It then warns:

"Under poor oxygen conditions, nutrients may be released into the environment."

The report includes comments on the wider use of "natural" approaches to water treatment. These underline the need for research and continuous monitoring that the planning committee needs to consider.

One comment is :

"There are key knowledge gaps in the effectiveness of many types of sustainable drainage and constructed wetlands, including the degree of pathogen removal, effectiveness in flood mitigation, and the maintenance required to ensure optimal performance over time."

It then goes on to say:

"As new interventions are deployed, they should be coupled with a proactive monitoring and evaluation programme."

A further point for local authorities arises in the report's recommendations. One is that:

"Defra, devolved administrations, and local authorities should coordinate a national scale deployment strategy for sustainable drainage systems to future proof our wastewater infrastructure in a changing climate. These interventions must be supported with clear guidance and responsibilities for maintenance and evaluation to ensure long-term performance."

This application to West Sussex District Council (WSDC) has to be considered in the wider context, as

outlined in this report. Any go ahead should ensure that the Staplefield wetland is properly monitored and managed. This is especially important as this it the first time that Southern Water has used this approach to water treatment.

WSDC should also use this project as an opportunity to learn more about this relatively new natural approach to water treatment and to support research into the use of wetlands for wastewater treatment.

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Attachments