

Milton Creek Water Quality Review

Following recent research shared publicly by Raybel Charters (RC), this council shares their concern about reported levels of water pollution in Milton Creek, with measurements reaching 10-20 times the safe levels to support a suitable inland creek ecosystem.

As a valued community organisation doing crucial work to preserve Sittingbourne and Milton Regis' heritage shaped by our Creekside location, Raybel Charters have asked for this council's endorsement for their work to access external funding to deliver improvements to the creek's water quality and the natural environment, alongside further strengthening heritage associated with Milton Creek.

Council therefore resolves to:

1. Ask the Leader of the Council and the Chair of the Environmental Services and Climate Change Committee to write to Southern Water to ask for their plans to support water quality improvements for Milton Creek.
2. Provide Full Council support for the Leader, Deputy Leader, Mayor and Service Committee Chairs to provide any public or written support sought by Raybel Charters in support of external funding applications without the need to wait for committee approval.

Reason for the project

The 2024 citizen science water quality monitoring program for Milton Creek, led by Raybel Charters, has provided valuable insights into the environmental health of this historically significant waterway. By sampling three distinct sites—Lloyds Wharf (Site 1), STW (Site 2), and Swale Bridge (Site 3), the program has identified key water quality trends and challenges, highlighting the impact of both natural and human activities on the creek.

Who sponsored the project

The project was funded by DS Smith and carried out by Raybel Charters with the report written up by the South East Rivers Trust.

Findings of the project

The findings of this study reveal that Milton Creek continues to face significant environmental pressures, particularly from sewage discharges and urban run off. These factors contribute to nutrient enrichment, bacterial contamination, and elevated turbidity, all of which can degrade water quality and harm aquatic ecosystems. While some parameters, such as pH and oxygen, remain stable, the overall water quality is far from optimal and requires targeted interventions to address pollution sources.

Possible solutions to improve the water in the creek

Key Recommendations:

To improve water quality across Milton Creek, a staged restoration approach is recommended. The first step should focus on addressing discharges and run off, particularly at Sewerage Treatment Works, to reduce nutrient and bacterial pollution.

Expanding the monitoring program to include more frequent sampling and/or randomized sampling regimes with additional parameters, such as microplastics and fish surveys. This would provide a clearer picture of pollution sources/trends and link these to the creek's ecology. These efforts would lay the groundwork for future ecological restoration projects,

such as oyster bed restoration and seagrass recovery, which depend on improved water quality for their success. By addressing these challenges, Milton Creek has the potential to become a healthier, more resilient waterway, supporting increased biodiversity and community use.

The addition of floating reed beds and, buffer strips could be installed in areas prone to run off, particularly near urban or industrial zones. These vegetated strips can intercept and filter surface water before it enters the creek, reducing the input of nutrients, sediments, and other pollutants. Buffer strips also provide additional habitat for wildlife, contributing to the overall ecological health of the area.

The implementation of Sustainable Drainage Systems (SuDS) in the surrounding urban and industrial areas could further reduce the impact of run-off on Milton Creek. SuDS techniques, such as permeable pavements, rain gardens, and detention basins, are designed to slow down and treat surface water run-off, reducing the volume and pollutant load entering the creek. These systems can be integrated into new developments or retrofitted into existing infrastructure, providing a long-term solution to managing urban run off.

Additionally Wetland Ecosystems could be established to treat water with natural filtration beds after the STW outflow before it heads into the creek. This can provide increased green space and biodiversity gains/ habitat.

Additionally Wetland Ecosystems could be established to treat water with natural filtration beds after the STW outflow before it heads into the creek. This can provide increased green space and biodiversity gains/ habitat.

Enhanced monitoring and data collection expand the monitoring program to include additional parameters, such as heavy metals, microplastics, and biological indicators to gain a more comprehensive understanding of water quality. Increase sampling frequency during critical periods, such as after heavy rainfall or during known sewage discharge events, to capture more detailed data. Pollution mitigation advocate for stricter regulations and improved wastewater management practices to reduce the frequency and duration of sewage discharges.

Community engagement and restoration efforts continue to involve citizen scientists in monitoring programs to raise awareness and foster a sense of stewardship for Milton Creek. Support habitat restoration projects, such as those in Milton Creek Country Park, to enhance biodiversity and improve the creek's ecological resilience.

In 2025/26, the citizen science program, in collaboration with the Living River Foundation, aims to monitor microplastic pollution to better understand and address its environmental impact in addition to fish surveys which could help in tying results of chemical structure of the creek to its ecology.

Proposed by: Councillor Paul Stephen

Seconded by: Councillor Ashley Wise