

FLOOD RISK & DRAINAGE CAPABILITIES

Does your site need an engineering design solution to manage surface water and the risk of flooding?

Sirius Environmental combines extensive industry knowledge with innovative project solutions helping clients deliver engineering outcomes that are both effective and sustainable. Our multi-disciplinary team of consultants and environmental engineers brings expertise to every project. One of our specialist areas is Flood Risk & Drainage.

Surface Water Drainage Design:

This includes designing systems to manage surface water, following the guidelines of CIRIA C753. It involves hydraulic calculations using drainage software like Infodrainage and Microdrainage, creating detailed drawings for the layout and construction of the drainage system, and providing schedules for manholes.

Flood Risk and Consequence Assessments:

The reports will:

- Identify all potential flood risks affecting the site.
- Analyse flood extent and water levels using the latest flood risk data.
- Provide recommendations and solutions to reduce flood risks, following CIRIA C790 guidelines.

Drainage Strategy Reports:

These will:

- Calculate runoff from the site and how much water needs to be stored.
- Offer an initial design for surface water drainage.
- Provide hydraulic calculations using drainage software.

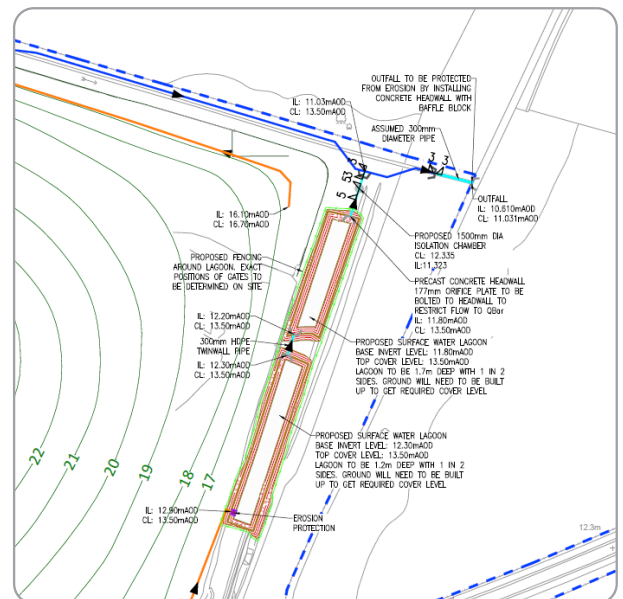
Hydraulic Modelling and Flow Calculations:

This involves:

- Creating 1D/2D hydraulic models and reports.
- Performing full calculations for catchment areas using methods like FEH or ReFH2.
- Generating maps showing flood depth, extent, and flow velocity based on the model.



The Sirius Environmental Team can identify potential flood risk affecting your site.



Sirius can design catchment areas and the calculations needed to prevent flooding.

Other services include:

- Foul water drainage design (for waste water).
- Helping with discharge consent applications and working with regulators/water companies.
- Sustainable Drainage System Approval through the SUDS Approval Body (SAB) in Wales.
- Geotechnical analysis of structures used to manage water.

For further help or information, please contact our technical teams.

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