

C20543 CSF-HYPE Technical Support 2023-24 - Specification

Background

The Catchment Sensitive Farming Hydrological Predictions for the Environment (CSF-HYPE) model was developed using the HYPE open-source semi-distributed hydrological water quality and nutrient package developed at the Swedish Meteorological and Hydrological Institute (SMHI) <https://www.smhi.se/en/research/research-departments/hydrology/hype-1.7994>. The model development carried out for CSF is described in JBA 2019 and the as-yet unpublished report on the groundwater model updates.

The first model version was used in the completion of the CSF Phase 1-4 evaluation report published in 2019 (<http://publications.naturalengland.org.uk/publication/4538826523672576>)

Following this report, the model performance was reviewed, and a programme of updates has been carried out in 2020/2021, 2021/2022 and 2022/2023 including upgrading the underlying climate scenario using the latest UK Climate Impacts Programme (UKCP18) data, improving the groundwater representation in the model, and providing training to Agency staff.

Specification

CSF-HYPE is central to our work in the evaluation of CSF in the ARE team. As the improved model moves into being used for a wider variety of tasks within the Agency, access to technical expertise, support and advice will be essential and will need to be flexible in its timing during the year.

The most efficient way to deliver our requirements for the model is to let a flexible call-off contract to call down services as they are required so that the Agency's changing needs can be met in a timely manner. The contract must be flexible as to timing and exact requirements as the Agency's priorities will develop during the year.

This is a one-year contract to provide technical support to 31 March 2024.

The Contractor shall provide the following technical support Services:

- Technical support and guidance to transfer knowledge and skills required to enable Agency staff to update, calibrate and run the HYPE model. This may be in the form of training, guidance or workshops. The timing and format of the support required will be agreed with the Contract Supervisor during the contract period.
- Technical support, advice and quality checking of HYPE model inputs and outputs on request, as the need arises.
- Limited HYPE model improvements and further development in collaboration with the Agency's Agriculture Risk Evaluation (ARE) team. Proposed model improvements and or developments must be approved by the Contract Supervisor prior to commencement.
- Technical support to trouble-shoot problems that arise with the operation of the HYPE model as the need arises.
- Provide support to Agency HYPE model users as the need arises.
- Maintain the HYPE SharePoint site.
- Maintain a relationship with Swedish Meteorological and Hydrological Institute (SMHI) and their model code developers to seek their technical input to provide the Services as necessary.
- Any reasonable additional services to facilitate the delivery of the above requirements as necessary.

Intellectual Property

- The Agency shall provide the necessary IP licences and access to data it holds for the Contractor to carry out the Services.
- All IP Licences and Agency data will be returned to the Agency on completion of the Contract.
- Details of Prior Rights held by the Agency and the Contractor will be recorded in the Prior Rights Schedule and kept updated for the duration of the Contract.

Timeframes

- The Contractor shall respond to requests for support within five working days of receiving the request.
- Where the issue cannot be resolved within five working days, the Contractor shall provide the Contract Supervisor with an estimate of time for resolution and provide any reasonable additional support required during this period.
- Timings for any Agency staff training events will be agreed with the Contract Supervisor as they are required.