The following questions and answers were collected by email and telecon as of 20-Aug-2012. Please send any corrections or additional questions to techdesk@opengeospatial.org by 20 August 2012.

Revision log:

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| Date | Name | Remarks |
| 7 Aug 2012 | Lew Leinenweber | First Draft |
| 10 Aug 2012 | Lew Leinenweber | Updated with question received via direct email |
| 13 Aug 2012 | Lew Leinenweber | Updated table of contents and section headings |
| 15 Aug 2012 | Lew Leinenweber | Updated due date for final questions to be consistent with RFQ |
| 15 Aug 2012 | Lew Leinenweber | Updated for questions/clarifications requested at the Bidders Conference on 15 Aug 2012 |
| 20 August 2012 | Lew Leinenweber | Updated for additional question received after the Bidder’s Conference |
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# Questions and Clarifications

1. We would like to contribute by implementing an SOS service that would serve large volume time series data encoded with the SWE Common Data Model 2.0 standard (note that this is listed as future work and illustrated in Annex F in the WaterML 2.0 standard). Although it is not explicitly listed in the RFQ document, would sponsors be interested in funding such an implementation?
	1. The requirements for the CHISP-1 are set and cost-share funding and in-kind contributions will be focused on meeting those requirements. Potential future phases of the CHISP initiative might include requirements to implement SWE Common Data Model encodings.

	Interested parties might want to address further work in this area via the Hydrology DWG and/or through the SWE Common SWG. Interested parties might also want to consider participation in a related IE, which might offer opportunities to implement and test such alternate encodings.
2. Are the WPS to do calculations in space or time or both?
	1. The nutrient load WPS will need to do calculations in space and time. The Gauge WPS will be space only.
3. Is a service that calculates the max (or min) value in a time series needed?
	1. The current baseline does not include such a service. Innovative ideas in proposals are encouraged within the scope of the defined scenarios. It’s conceivable that an SOS or WFS might provide such a service as shown in the Engineering Components.
4. Is there a requirement for a processing service (WPS) to perform normalization of time-series data to account for differences in sampling rates or units of measure?
	1. The current baseline does not include such a service. Innovative ideas in proposals are encouraged within the scope of the defined scenarios.

	See also Section 2 item #1 below for a description of an added sponsor-provided EGRET nutrient load computation module that would be available for use by participants as part of a solution to address the requirements of the Nutrient Load Calculation Service (NLCS).
5. Can there be a two-week extension of the deadline for responding?
	1. The due date for proposals has been extended to 14 September 2012.
6. There are conflicting meetings with the planned Kickoff dates. In particular a USGS Conference on September 24-27. Suggest that the following week would be better.
	1. The date for the Kickoff will be rescheduled to occur during the week of 15 October 2012.
7. Will the components provided by the sponsors be integral parts of the development team?
	1. Sponsor representatives will participate in an active process with participants to develop and integrate their sponsor-provided components with participant-provided components, as needed during the pilot.
8. Will there be multiple awards?
	1. Yes. An objective in making the funding awards will be to promote interoperability between different implementations.
9. What funding is available and what size are the awards to be.
	1. The total funding of the project is currently $197,500 provided by the sponsors. This funding will be allocated across all of the organizations participating in the initiative. Funding for specific deliverables will be insufficient to fully develop the component. There is an assumption in the consortium model that the organizations providing the deliverables are already doing development in the area. The funding provided by the pilot will be of the magnitude that allows participants to contribute existing developments into the consortium process. Funding to participants will be comparable to prior OGC initiatives.
10. Would there be interest in a proposal that is based upon Open Source?
	1. All proposed solutions are welcome, whether they be open source or otherwise, provided they address the requirements stated in the RFQ/CFP.

# Sponsor-provided additions or corrections

1. USGS will contribute an additional in-kind component that performs nutrient load computation (written in R) that consumes SOS daily streamflow and [waterqualitydata.us](http://waterqualitydata.us/) services data. A summary of the module capabilities is provided below, followed by links to additional detailed information.

Load computation can be estimated using the EGRET R-package (Exploration and Graphics for RivEr Trends), an R-package for the analysis of long-term changes in water quality and streamflow, including the water-quality method Weighted Regressions on Time, Discharge, and Season (WRTDS). WRTDS can compute concentrations, fluxes, and flow normalization. Water quality measurements along with their corresponding streamflow values, as well as historical streamflow conditions are required to build a model. This package includes a data retrieval module that currently retrieves USGS data from web services or user files, but could be fairly easily customized to any other WaterML2 or WQX data sources.

Specific details on the EGRET package can be found here:

<https://github.com/USGS-CIDA/WRTDS/wiki>

The package and user guide can be found here:

<https://github.com/USGS-CIDA/WRTDS/downloads>