NOOS PROJECT SUMMARY: River runoff data for operational ocean forecasting

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KEYWORDS: ocean modelling, river, fresh water, runoff

River runoff data for operational ocean forecasting	
Project Aims	Make river runoff data – observed and predicted fresh water flux and nutrient/contaminant loads – available to NOOS partners for use in ocean hindcasting and forecasting, and assess the benefits derived. 1. Make **near-real-time observations** of river fluxes available to partners. 2. Make high quality **historical data sets** of observed fluxes and loads available to partners for hindcast studies. 3. Assess the availability and applicability of **prognostic river runoff data** and make recommendations for further effort. 4. Develop **best practises** for applying river runoff data in coastal ocean forecasting.
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Present status (October 2011) New or updated items in **bold**	Project tasks 1.1, 1.2 and 2 were addressed in ECOOP T2.5 (ended May 2010). NOOS partners: met.no, SMHI, RIKZ, BSH. K. Borst coord NOOS part. Task 1.1, 2.1: River volume flux data inventory done (→ ECOOP T2.5) • Info on NRT data from Sweden, Germany, Norway, UK • Archive data for UK from Cefas • Coop IBI-ROOS for French, Irish stations Task 1.2: NRT data exchange • Daily updated obs data provided for major rivers in southern Norway by met.no. ftp.met.no/pub/bruceh/noos/. • Daily updated prognostic data for rivers feeding the Kattegat/Skagerrak provided by SMHI. • 10-min obs data for Dutch and German stations provided by Deltares. • Deltares has implemented data collation, presentation and dissemination. Online access for viewing at http://noos.cc/index.php?id=150. FTP access at ftp://noosdata.nl/ECOOP/DATA/RWS. MATROOS at Deltares accessible at matroos.deltares.nl (noos login). • Data file format standardized to SDN ODV pending a netCDF standard. Metadata standard is SDN CDI. • **Data for England can be brought in through efforts of RWS, Deltares and Met Office. Permission from UK Env. Agency is essentially solved. Outstanding tasks/issues:** **- Select subset of all stations available (met.no)** **- Obtain final permission from EA – licensing? (met.no)** **- Implement in dissemination service (Deltares)** **- Main use will probably be for validation of E-HYPE** • **Need to start process for Scotland. (met.no, MetO)** • No NRT data will be available from Belgium (but maybe via NL). • **Contact IBI-ROOS for access to data from France, Eire. (met.no, IMI)** Task 3: Prognostic runoff data • E-HYPE: Hindcast data (monthly means 1980-2008) available at

	ehype.smhi.se. **Update ...** • E-HYPE: Start of MyOcean micro-project MyRiver (SMHI, met.no) • **E-HYPE: Start of OPERR (EU Coord. Activity, SMHI, IMR, met.no)** • **E-HYPE: First tests of E-HYPE data in Met Office model.**
Project timescale	Year 2005-06: • Establish project and finalize Project description • Assign tasks to partners • Start the inventory of river datasets and hydrological models (1.1, 2.1, 3.1) Year 2007: • First version of the river data inventory complete (1.1, 2.1) Year 2008: • Update project description • Initial implementation of exchange system for NRT (1.2 – ECOOP 2.5.2) Year 2009: • Operate data provision by ftp box for selected data sets (NO, SE) • Operational data provision for DE and NL (ECOOP ***Deltares – RWS***) • Establish data assembly center at Deltares, with online viewing, ftp dissemination and analysis tool (MATROOS). • Prognostic hydrological model for northern Europe expected initiated by SMHI. Year 2010: • April-May 2010 A preliminary uncalibrated E-HYPE version • June 2010 Improvement and calibration before put in operational environment • June-Aug 2010: Preparations for daily model runs in development environment • Aug-Sep 2010: Finishing the model setup and testing and evaluation • Oct 2010: Daily model runs in a production environment. Year 2011/12: • Obs data: UK EA agrees in principle to release English data. Station selection and licensing options need to be resolved. (met.no, MetO) • Obs data: Approach Scotland for same. (met.no, MetO) • Validate E-HYPE against obs in NOOS region. (MyOcean, OPERR) • Test E-HYPE data in ocean models by other NOOS participants (best endeavors).
Link to project docs	Description of Work ECOOP WP 2.5 description MyOcean WP7 description OPERR description