HyperHydro EGU splinter meeting (16 April 2015)

Opening from Marc Bierkens
- Re-introduction of the website: www.hyperhydro.org
- Re-introduction of the three working groups:
  - WG1: Testbeds, coordinator: JT Reager
  - WG2: Common framework, coordinator: Rolf W. Hut
  - WG3: Parameters and concepts, coordinator: Stefan Kollet
- A plan for the workshop in Utrecht:
  - The objective of this workshop is to initiate the test-bed experiments of WG1 (see below).
  - Time: summer 2015 (June 2015), for about 4 days (e.g. Tuesday to Friday)
  - Targeted participants: young scientists (phd students or post-docs)
  - During this time, Reed Maxwell will also visit Utrecht University.
  - Utrecht University will subsidize some young scientists to come to Utrecht.
  - Marc is currently preparing the budgets.
  - To be decided and informed:
    - The exact date and time.
    - The exact number of young scientists that will be invited (< 10 people).
    - The amount of subsidy money given to each person.
    - Due to longer traveling journey and more expensive traveling expense, US-based scientists should receive higher subsidies than European-based scientists. The scientists based in the Netherlands will not get any subsidies.

Update from WG1: Presentation from Edwin Sutanudjaja (on behalf of JT Reager)
- See the presentation file "WG1_test_beds_EGU_16April2015.pdf".
- The main task of WG1 is to setup testbeds for comparing different large-scale models at different resolutions.
- Three test bed areas: California, Illinois and Rhine-Meuse.
- All of data have been uploaded and the server is fully functional.
- During the workshop, all modelers will use their own computing facilities/cluster.
- Data adjustments are needed to fit datasets to models:
  - UFZ Leipzig has the experience to run their high resolution model in Europe (including Rhine-Meuse), but not in US (e.g. California, Illinois).
  - This is the same for high resolution of PCR-GLOBWB. The PCR-GLOBWB group also has no experience in using the datasets of GGSURGO, etc.
- Therefore, the planned workshop in Utrecht is important to resolve all aforementioned issues.
- Plan/schedule for WG1 (see also the presentation file):
  - Summer 2015   : Workshop in Utrecht
  - Fall & winter 2015 : Continued model simulations
  - AGU 2015   : Presenting the first results
  - 2016 (after AGU 2015):
    - Work to share and summarize work-to-date, finalizing the model outputs.
    - Begin discussing metrics or outputs for model inter-comparison.
    - Have another meeting with the larger group.
    - Writing papers and in 2016 some papers should be ready for submission.

Presentation from Hannes Müller Schmied:
- Master project by Tim Trautmann.
- Although the WaterGAP model used has the resolution of half arc degree, this presentation/experiment is a good example/experience using the data stored in the server.

Update from WG2: Presentation from Rolf Hut and Niels Drost
- See the presentation file "WG2_HyperHydro_EGU.pdf"
- They showed the demo of http://forecast.ewatercycle.org/
- The demonstration is an example of a general framework that can be used for coupling several components and visualizing the results.
- We propose to use available standards (e.g. BMI, WMS, NetCDF, CF convention, etc.) as much as possible within HyperHydro. This will allow us to work together and make real progress much easier.

Update from WG3: given by Marc Bierkens
- The main task of this working group is to deliver the information (parameters, forcing and concepts) needed to achieve hyper-resolution (< 1 km) globally.
- Stefan Kollet is currently initiating the writing of a review paper with the following setup:
  - Create an inventory of what's already out there in terms of concepts and parameters.
  - The paper will point to the current deficiencies and perspectives about how we should tackle them.