

Northwest River Forecast Center



National Weather Service Implementation of Community Hydrologic Prediction System

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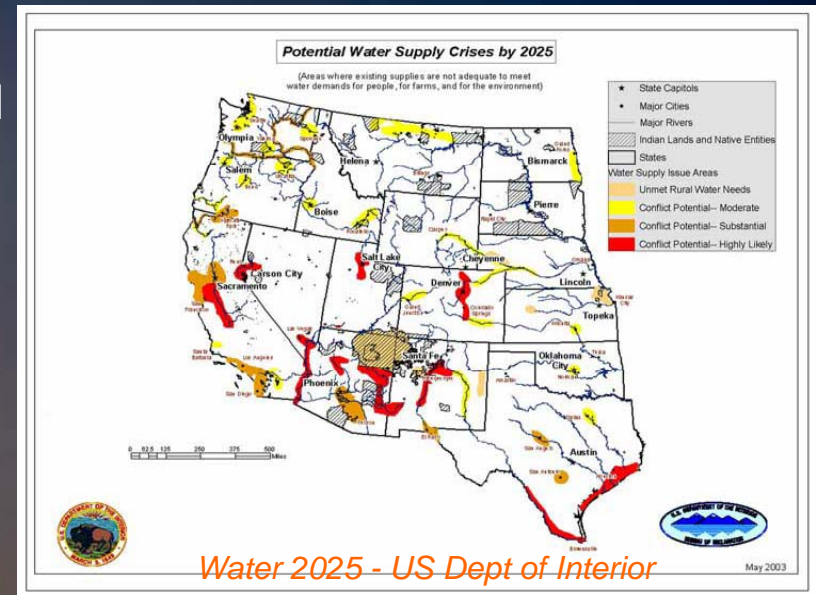


New NOAA Water Resources Initiatives

Objective: Nationally consistent, water and soil forecasts delivered via a national digital database

Outcome: Water resources forecasts delivered to Federal, academic, public and private sector partners for critical decisions related to:

- Sustainable irrigation
- More efficient power generation
- Sensible, year-long water conservation plans
- Rational allocation and distribution of water
- More cost-effective river commerce
- Protection of threatened and endangered species
- Balanced terrestrial/aquatic watershed management
- Enhanced aquatic habitats



Builds on the Advanced Hydrologic Prediction Service

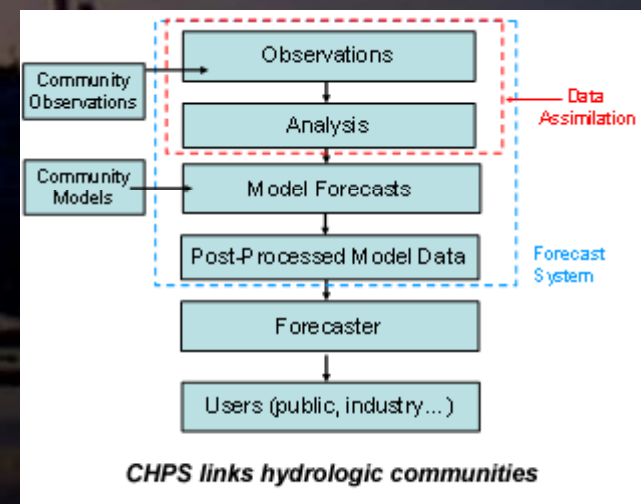
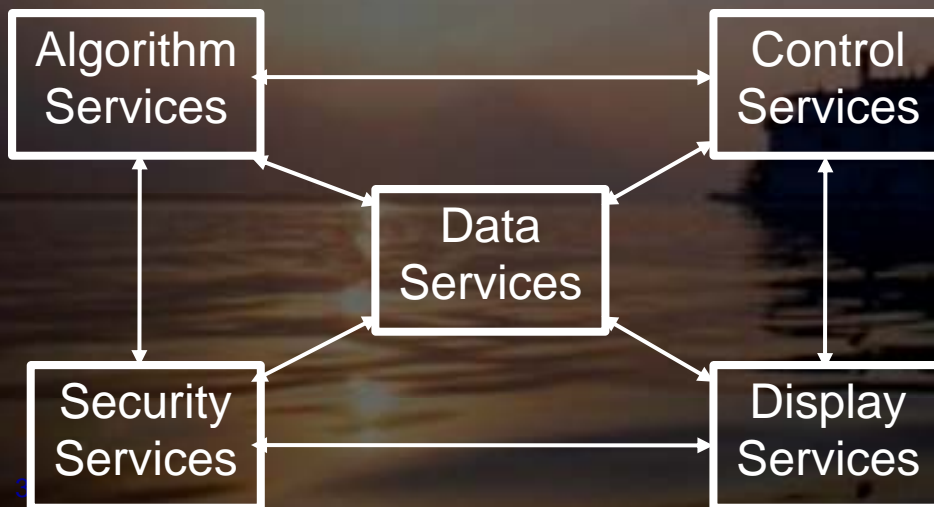
Creates a Community Hydrologic Prediction System for the rapid transfer of collaborative research into operations



Community Hydrologic Prediction System CHPS

NOAA's National Weather Service (NWS) River Forecast Centers (RFCs) are key partners in the provision of water resource information.

The Community Hydrologic Prediction System (CHPS) will enable NOAA's water research, development enterprise and operational service delivery infrastructure to be integrated and leveraged with other federal water agency activities, academia, and the private sector.





CHPS & FEWS

NWRFC has started model migration to CHPS beginning February 2009

- Parallel operations targeted for October 2009

CHPS will employ an open source modeling system known as FEWS – Flood Early Warning System

What is FEWS?

- *JAVA based system and repository for hydrologic/hydraulic modeling*
- *Client/server architecture*
- *Provide for deterministic and ensemble capabilities*
- *Employs Postgres database*
- *Open Architecture to allow access to modeling and services*



Why CHPS & FEWS?

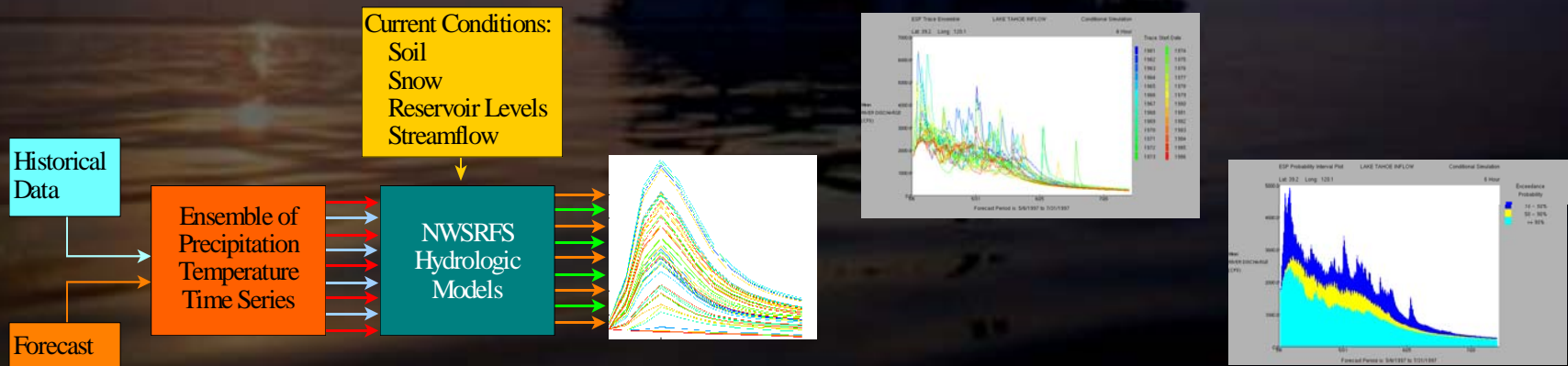
- Enables NWS/RFCs to meet the NOAA and NWS initiatives for new services and collaboration
- New opportunities for potential services/modeling available via FEWS
- Capitalize and engage others on sciences and models



Baseline Operational Capability

ESP - Ensemble Streamflow Prediction Services

- FEWS will provide for existing level of ensemble operations, products, and services
- Retreat from ESPADP due to reliance on FS5files
- Replace ESPADP with the XEFS Ensemble Product Generator (EPG)
 - Initial version this fall 2009
 - Completed by fall 2010

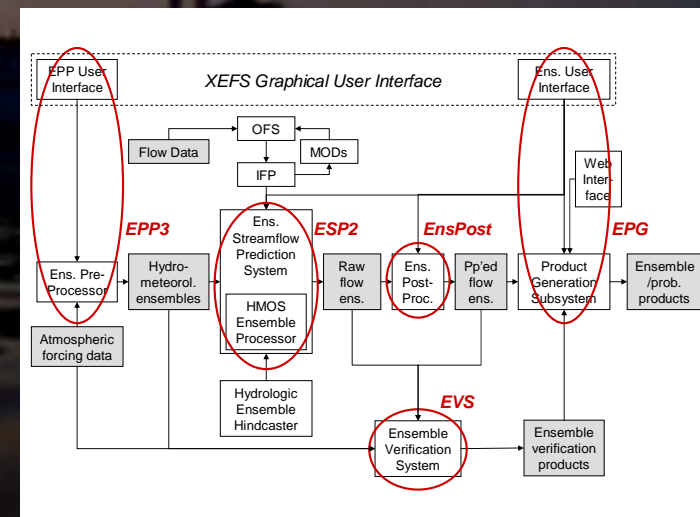
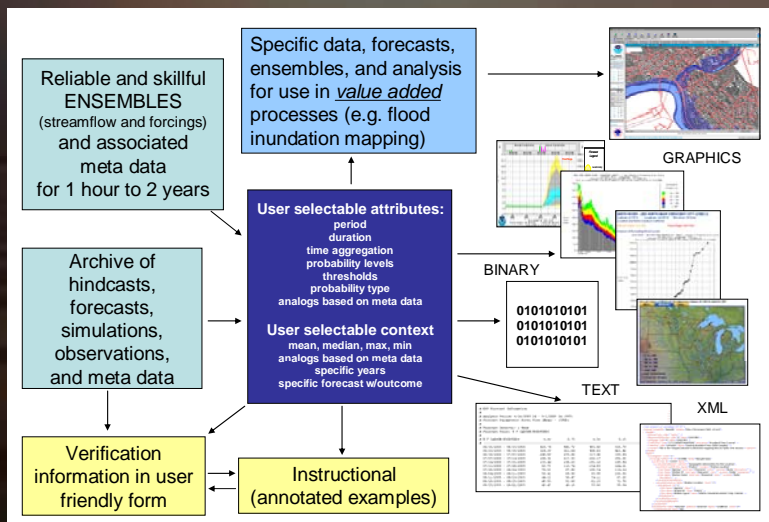




Baseline Operational Capability

XEFS - Experimental Ensemble Forecast System

- Right behind NWSRFS migration
- Prototyping at CN, CB, MA, OH, and NERFCs in 2010
- Operational in 2011 at CNRFC





Thank You