Hydrology Program Planning FY09

Planning Team Kickoff Meeting

15 September 2008

Outline

- Planning goals
- Feedback from last year / Proposed changes
- Proposed timeline
- Core goal priorities
- Work plans
- Next steps
- Team membership
- Annual Guidance Memorandum

Planning Goals

- Reflect program priorities
- Efficient
- Realistic
- Actionable
- Timely
- Flexible

FY09 Teams

- **Core Goal Teams**
  - Innovation
  - Uncertainty Forecasts (XEFS)
  - Distributed Model
  - Software Refresh (CAT)
  - Verification
  - Flood Forecast Inundation Maps (static)
  - Forcings and Inputs
  - Archive
  - Flash Flood Forecasts
  - Hydraulics
  - Integrated Water Resource Science and Service

- **Program Areas**
  - New Service Locations
  - Outreach
  - Training
  - Web Deployment
  - Program Management

Feedback from FY08
Theme Teams, OHD, HSD, HICs

- FY08 planning process generally went well. As implemented last year, we will continue to:
  - Keep focus on highest priority core goals to make progress.
  - Coordinate with OHD Branch Chiefs and Senior Scientist before proposals are presented to the theme teams.
  - Leverage expertise of existing teams
- Still concern that comparison of priorities between themes is not adequate. How do individual projects within a theme stack up against ones in other themes?

FY09 Process Adjustments

Feedback	Adjustment
Concern that comparison of priorities between themes is not adequate. How do individual projects within a theme stack up against ones in other themes?	Single group to look at the range of proposed activities for Hydrology Program. Added Go-to-Meetings to schedule before HIC meeting. At the next HIC meeting, will focus on integrated review before making recommendations to ARC.

Proposed Schedule

Date	Activity	Responsible
8 Sept. 2007	ARC (consolidate input from HICs) and HL Branch Chiefs	Agree on priority areas
12 Sept. 2007	Deliver Annual Guidance Memorandum (AGM)	OHD and OCWWS/HSD
Sept. – Nov.	Develop core goal/program area plans (no limits)	Teams
Nov. – Dec.	OHD/HSD revise plans based on funding targets	OHD/HSD
Dec. – Jan.	Teams review revised plans - recommendations	OHD/HSD
Jan. 20 week	Presentation of workplans at pre HIC/ARC meeting GoToMeetings	Project/Team Leaders
Jan. 26 week	HIC/ARC meeting review integrated look at plans – recommendations from ARC	HIC/ARC

Core Goal R&D Funding Priority Considerations

- Obligations
  - Provide uncertainty information for 4,011 points by 2014 (AHPS)
  - Provide gridded water resource information (Water Resources [CHPS, DM])
  - Verification (Inspector General mandate)
  - NOAA Integrated Water Resources – work with other programs to advance WR (NOAA)
  - Static inundation mapping (Etheridge legislation)
 - Support GPRA Flash Flood goals (Executive Branch mandate)

Core Goal R&D Funding Priorities
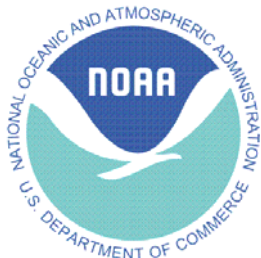## Highest, High, Med, Low, Program Areas

1. Improve the quality of physical inputs and forcings (e.g. QPE, QPF, temperature, evapotranspiration, soil conditions, burn data, etc.)
2. Improve river forecasts by improving hydrologic models (Note: river forecasts include water supply forecasts)
3. Improve forecasts of fast response hydrologic events including debris flow
4. Improve river forecast and warning services based on the effect of dam failures
5. Improve hydrologic forecasts impacted by reservoirs and regulation
6. Improve model connections / routing between model simulations (includes coastal effects)
7. Improve flood forecast inundation maps (Static, Dynamic)
8. Quantify the uncertainty of our forecast information
9. Generate and disseminate information to and for our users
10. Provide, then improve, gridded water resource data production capability
11. Provide, then improve, water quality forecasting capability
12. Disseminate hydrometeorolgical data to the field (e.g. HADS)
13. Software refresh – enhance the usability and/or internal workings of existing software
14. Allow the hydrology community to more fully participate in research to operations (e.g. CHPS)
15. Archive information required to support the Hydrology Program now and in the future
16. Verify our forecast and uncertainty information
17. Inform customers of our information and services, assess their satisfaction, and incorporate comments and feedback into Hydrology Program planning
18. Provide science and software training on Hydrology Program applications throughout the research to operations cycle.
19. Improve the efficiency and effectiveness of Hydrology Program management, including an understanding of logistical measures
20. Update and maintain the nation's precipitation frequency estimates
21. Define and coordinate Hydrology Program requirements with other NOAA programs and federal water partners
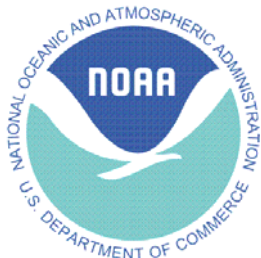
Highest Priority
Core Goal R&D Funding

Core Goal	Team	Team Leader
Improve hydrologic forecasts impacted by reservoirs and regulation (outsource)	Innovation (or replacement review group)	Pedro Restrepo
Quantify the uncertainty of our forecast information	XEFS Team	Chris Dietz
Provide, then improve, gridded water resource data production capability	Distributed Model Team	Pedro Restrepo
Software refresh – enhance the usability and/or internal workings of existing software	CHPS Acceleration Team	Chris Dietz
Verify our forecast and uncertainty information	Hydrologic Verification Requirements Team	Julie DeMargne and Mary Mullusky
Improve flood forecast inundation maps - **Static Maps**	Inundation Mapping Team	Victor Hom

High Priority
Core Goal R&D Funding

Core Goal	Team	Team Leader
Improve the quality of physical inputs and forcings (e.g. QPE, QPF, temperature, snow, evapotranspiration, soil conditions, burn data, etc.)	Forcings/Inputs Team	Mark Fresch
Define and coordinate Hydrology Program requirements with other NOAA programs and federal water partners (conductive external project)	Integrated Water Resources Team Integrated Water Resources Science and Services	Gary Carter
Archive information required to support the Hydrology Program now and in the future	RFC Archive Database Update and Maintenance Team	Julie Meyer
Improve the routing techniques used to connect forecast locations (includes coastal effects)- Hydraulic models	Hydraulics Team	Seann Reed
Improve forecasts of fast response hydrologic events including debris flow	Flash Flood Theme Team	Ernie Wells
Improve forecast and warning services based on the effect of dam failures	Flash Flood Theme Team	Ernie Wells
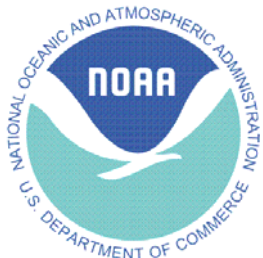
Medium/Low Priority
Core Goal R&D Funding

| Core Goal	Team	Team Leader
Allow the hydrology community to more fully participate in research to operations (e.g. CHPS)	IWRSS	Don Cline
Improve flood forecast inundation maps Dynamic Maps	None	None
Provide, then improve, water quality forecasting capability	None	None

Program Areas
Core Goal Funding

Core Goal	Program Area	Coordinator
Improve river forecasts by improving Hydrologic models (Note: "river forecasts" include water supply forecasts)	New Service Locations	Donna Page
Improve the efficiency and effectiveness of Hydrology Program management, including an understanding of logistical measures	Program Management	Donna Page
Generate and disseminate information to and for our users	Web Deployment (Web Implementation Team)	Donna Page, Ken Pavelle, Frank Richards
Provide science and software training on Hydrology Program applications throughout the research to operations cycle.	Training	Jeff Zimmerman
Inform customers of our information and services, assess their satisfaction, and incorporate comments and feedback into Hydrology Program planning	Outreach	Tom Graziano
Disseminate hydrometeorological data to the field (e.g. HADS)-steady state	No Team Needed	
Update and maintain the nation's precipitation frequency estimates	No Team Needed	

Work Plans

- 4 Sections
  - General team information (team name, members, tech reps)
  - Project/Funding requests information
  - Project schedule information
  - Project prioritization
- Any changes?
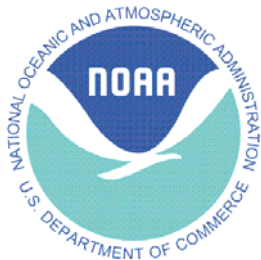
Example Work Plan

Core Goal: #13. Software Refresh – enhance the usability and/or internal workings of existing software
Priority: Blue (highest)

Team Name: CHPS Acceleration Team (CAT)
Team Members: Pedro Restrepo, OHD Senior Scientist (Team Lead), John Halquist, NCRFC, Harold Opitz, NWRFC, Rob Hartman, CNRFC, Billy Olsen, ABRFC
Technical Representatives: Randy Rieman, OCWWS HSD, Chris Dietz, OHD HSEB

Tasks	Responsible Organization	Cost ($)			HOSIP/ OSIP* Number	Last HOSIP/ OSIP Gate	Add. Fund. Src.
		FY07	FY08	FY09			
1. CHPS FEWS Pilot	OHD, CAT	Y	**$356K**	Y	OSIP # 07-017	Gate 2	N
2. CHPS IOC	OHD, CAT	N	**$607K**	Y	OSIP # 07-017	Gate 2	N
3. CHPS HydroXC	HydroXC Consortium	Y	**$182K**	N	None		N
	Total Cost		**$1,145K**				

Next Steps

1. Teams begin to review current status and plan documents
2. Finalize project plan templates
3. Generate HOSIP reports from database
4. Get Started