



Hydrology Program Planning FY08

Planning Team Kickoff Meeting 10 September 2007



Outline



- Planning goals
- Feedback from last year / Proposed changes
- Core goal priorities
- Proposed timeline
- Project management update



Planning Goals



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



FY07 Teams



Theme Teams

- Innovation
- Flash Flood Forecasts
- Short- to Long-term Forecasts
- Software Architecture Enhancements
- Dissemination of Hydrologic information

Program Areas

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



Feedback from FY07 Theme Teams, OHD, HSD, HICs



- Incorporate work on Core Goals and prioritization. Current resources spread too thin over too many projects. Keep focus on highest priority core goals to make progress.
- OHD human resources often overbooked. More input needed from OHD Branch Chiefs and Senior Scientist before proposals are presented to the theme teams.
- Reduce amount of time and effort expended by theme team leaders – they are often the people who do the development work.
- Concern that comparison of priorities between themes is not adequate. How do individual projects within a theme stack up against ones in other themes?



FY08 Proposed Process Adjustments



Feedback	Adjustment
1. Incorporate work on Core Goals and prioritization. Current resources spread too thin over too many projects. Keep focus on highest priority core goals to make progress.	AGM will reflect the prioritization of Core Goals by ARC.
2. OHD human resources often overbooked. More input needed from OHD Branch Chiefs and Senior Scientist before proposals put before the theme teams.	Plans will be developed and integrated within OHD and coordinated with HSD before being presented to HIC/ARC.



FY08 Proposed Process Adjustments (cont.)



Feedback	Adjustments
3. Reduce amount of time and effort expended by theme team leaders – they are often the people who also have to do the development work. Some teams too broad in scope.	Plans to be developed by teams focused on highest priority goals (not previous theme teams). Leverage existing teams (e.g. XEFS, CAT, etc.) Keep Program Areas.
4. 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. Next HIC meeting will focus on plan review – make recommendations to ARC.



Challenges & Benefits



Challenges

- More teams/people involved
- Ensure plans finalized in time to execute

Benefits

- More focused teams
- More coordination within OHD/HSD before teams get plans - Less work later for OHD
- More efficient for teams to review
- More realistic plans
- Opportunity for review across the program



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)
- Feedback from ARC, HICs, Team Leaders



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 forecasts 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



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 Planning Team	Pedro Restrepo
Software refresh – enhance the usability and/or internal workings of existing software	CHPS Acceleration Team	Pedro Restrepo
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



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Core Goal	Team	Team Leader
Core Goal	i C aiii	realli Leauei

Improve the quality of physical inputs and forcings (e.g. QPE, QPF, temperature, snow, evapotranspiration, soil conditions, burn data, etc.)	Hydrologic Model Inputs Team	Mark Fresch		
Define and coordinate Hydrology Program requirements with other NOAA programs (conductive external project)	Integrated Water Resources Team	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	Hydraulic Model Evaluation Team	Reggina Cabrera		
Improve forecasts of fast response hydrologic events including debris flow	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)	None	None
Improve forecasts based on the effect of dam failures	None	None
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	



Proposed Schedule



Date	Activity	Responsible
6 Aug. 2007	ARC (consolidate input from HICs) and HL Branch Chiefs	Agree on priority areas and modified team process
12 Sept. 2007	Deliver Annual Guidance Memorandum (AGM)	OHD and OCWWS/HSD
Sept. – Nov.	Develop core goal/program area plans	Teams
Nov. – Dec.	OHD/HSD revise plans based on funding targets	OHD/HSD
Dec. – Jan.	Deliver revised plans to HIC/ARC for review	OHD/HSD
Jan.	Presentation of workplans at HIC/ARC meeting – recommendations from groups	Project/Team Leaders
Jan-Feb	Final revisions	ARC/Gary



Next Steps



- 1. Prepare teams 3 new, revive a few
- 2. AGM Delivered
- 3. Teams begin to review current status and plan documents
- 4. Finalize project plan templates
- Generate HOSIP reports from database
- Get Started



Example Work Plan



FY07 Theme Work Plan

Theme: Flash Flood Services

Team Members: Mary Mullusky, Bill Lawrence, Peter Ahnert, Greg Smith,

Brian McInerney, John Woynick, Frank Bell, George McKillop

Technical Representatives: David Kitzmiller, Seann Reed, Ed Danaher, Mark Glaudemans, Mark Fresch, Reggina Cabrera, Tom Donaldson, Tom Filiaggi,

Ken Howard

Tasks	Responsible Organization	Cost (\$)			APP* Program	HOSIP/ OSIP	Add. Fund.	
	Organization			FY08	Element	Gate	Src.	
1. Radar Improvements								
1.1 Probabilistic Quantitative Precipitation Estimates (PQPE) from Radar	OHD/Kitzmiller	45	75	Y	2.3.1 (3a)	OSIP 06-035 Approve Gate 1, put on SREC List.		
1.2 Dual Polarization Radar precipitation estimates	OHD/Kitzmiller				2.3.1 (1a)		NPI	



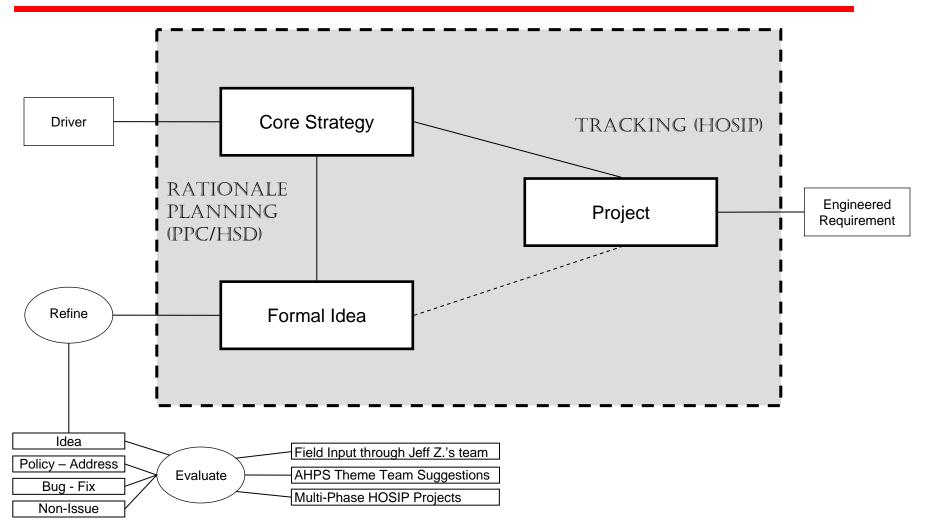


Project Management Update



HOSIP Database Schematic







HOSIP Database Lives! Project Screen



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