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

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.)	**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
5. Generate HOSIP reports from database
6. Get Started

Example Work Plan

FY07 Theme Work Plan

Theme: Flash Flood Services

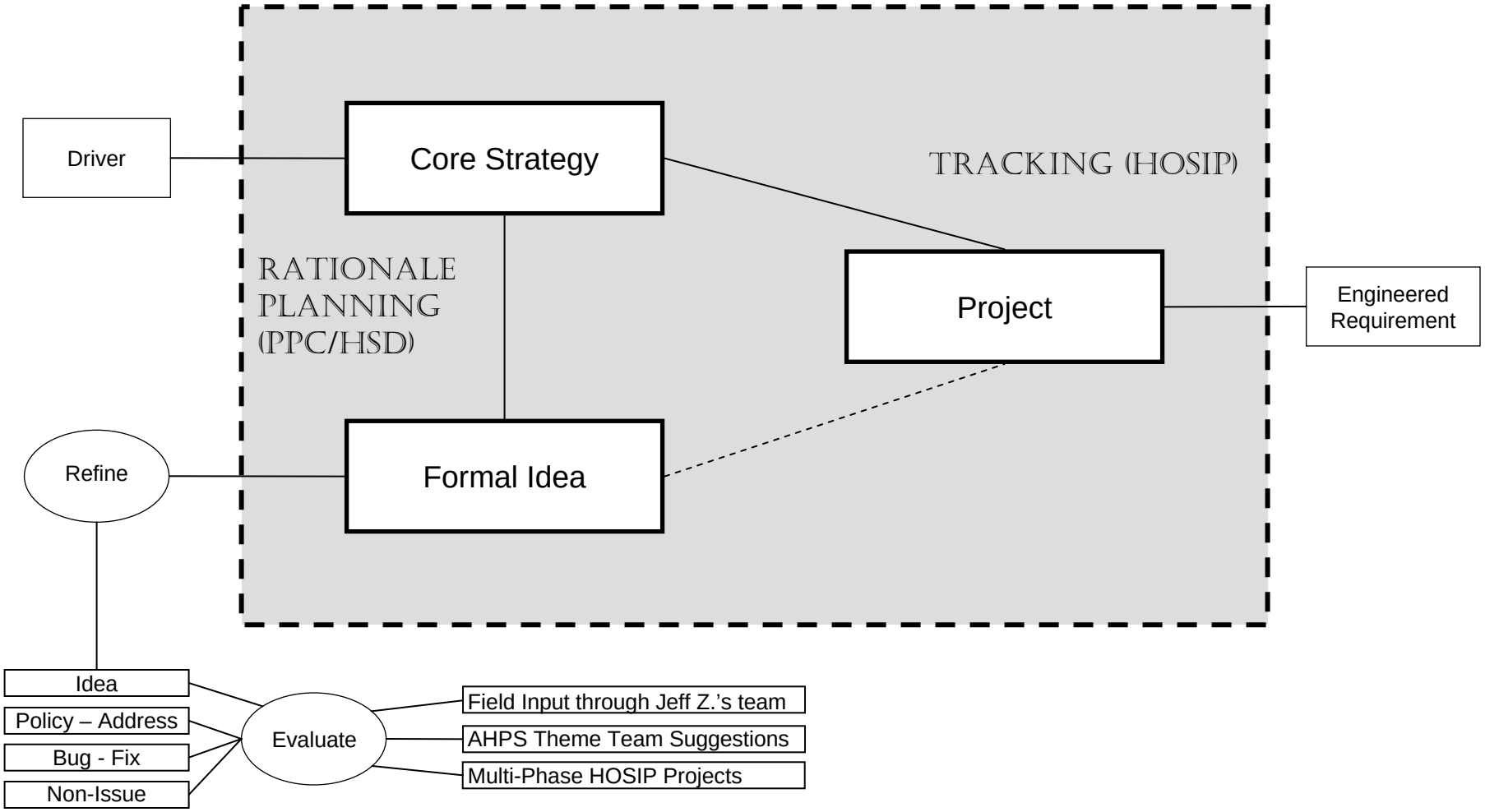
Team Members: Mary Mullusky, Bill Lawrence, Peter Ahnert, Greg Smith, Brian McInerney, John Woynick, Frank Bell, George McKillop

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

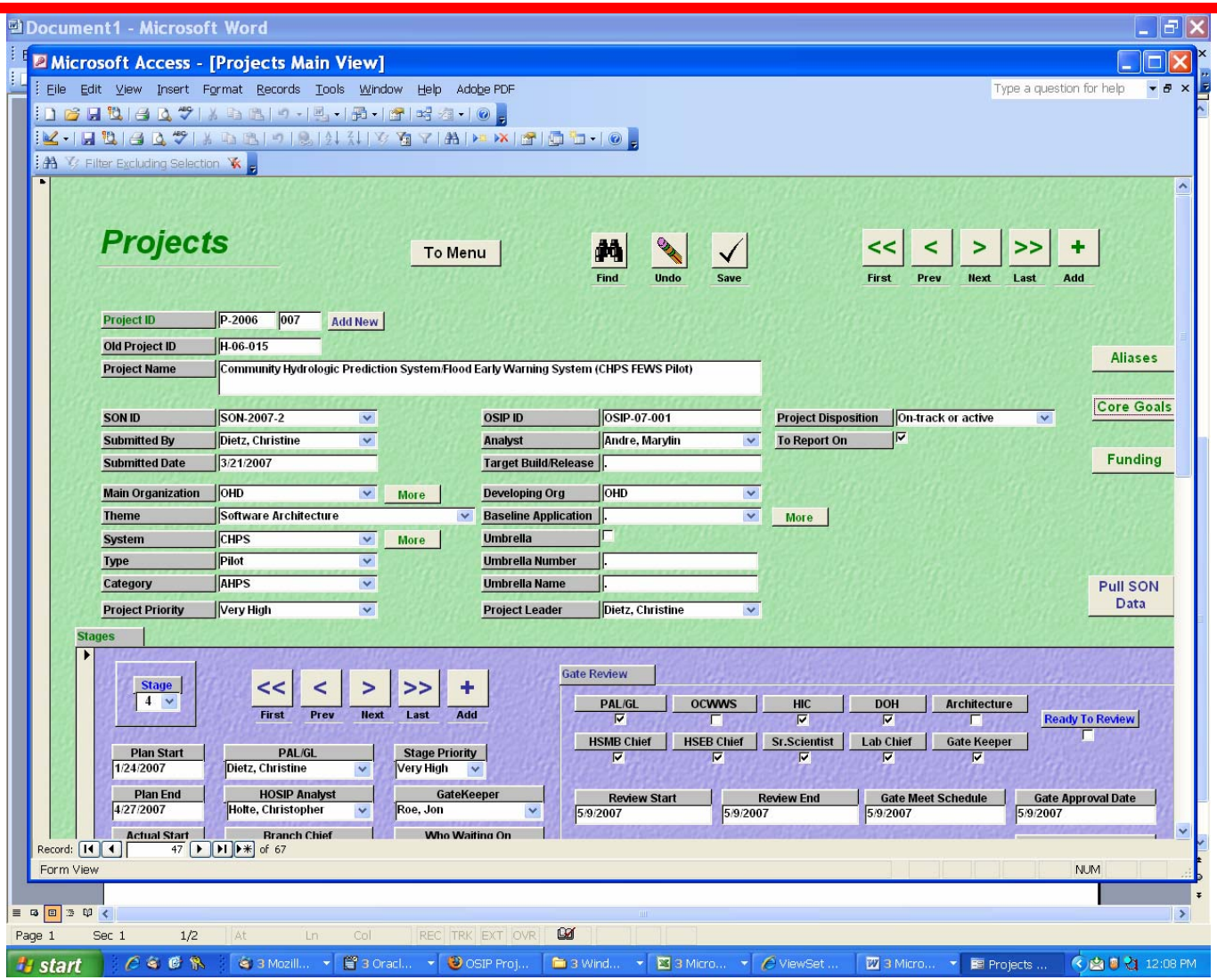
Tasks	Responsible Organization	Cost ($)			APP* Program Element	HOSIP/ OSIP Gate	Add. Fund. Src.
		FY06	FY07	FY08			
1. Radar Improvements							
1.1 Probabilistic Quantitative Precipitation Estimates (PQPE) from Radar	OHD/Kitzmiller	45	75	Y	2.3.1 (3a)	OSIP 06-035 Approve Gate 1, put on SREC List.	
1.2 Dual Polarization Radar precipitation estimates	OHD/Kitzmiller				2.3.1 (1a)		NPI

Project Management Update

HOSIP Database Schematic



HOSIP Database Lives!
Project Screen



HOSIP Database
Formal Idea Screen