

Single Model for all Applications of URGWOM

2013 RiverWare User Group Meeting

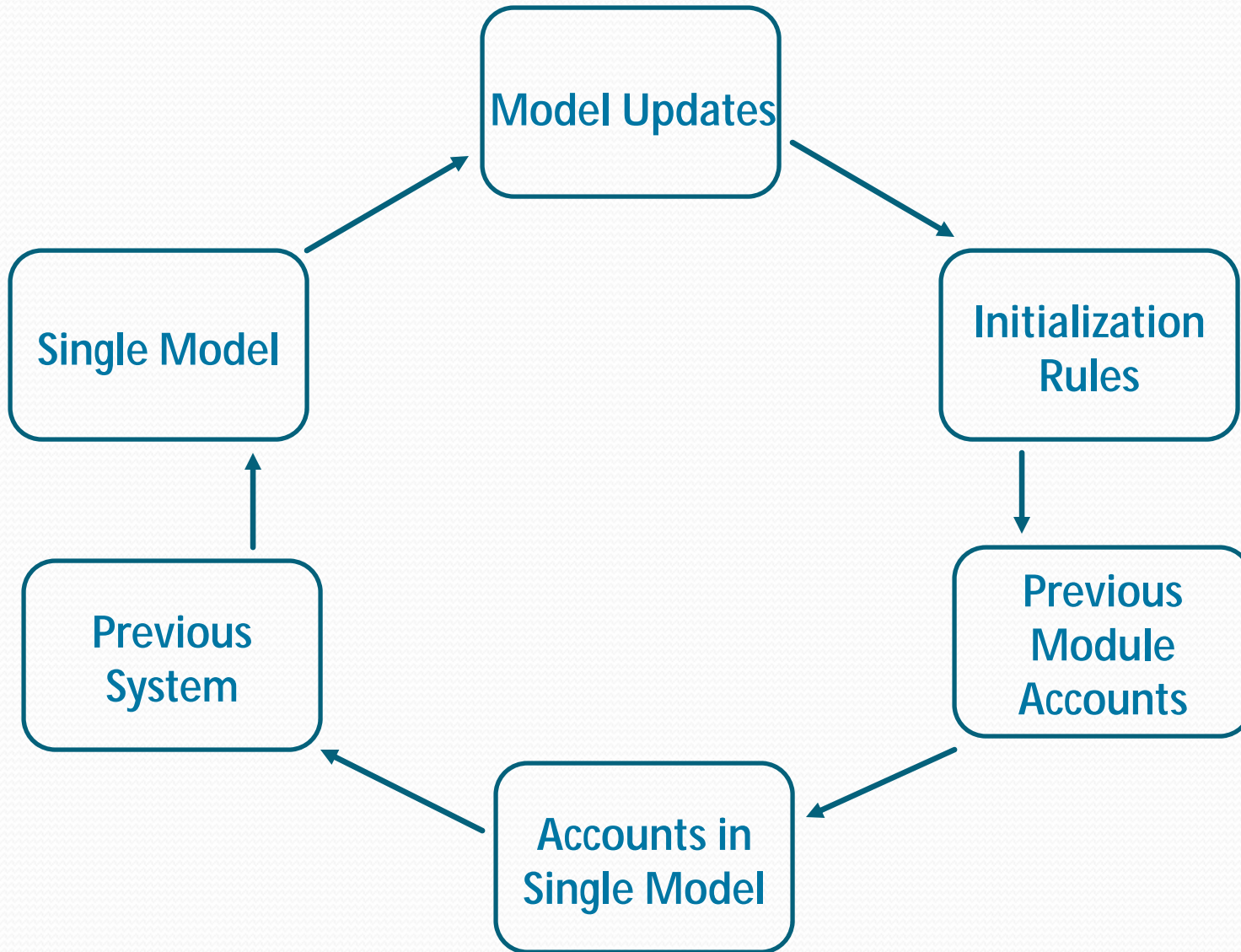
August 28, 2013

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URGWOM

- URGWOM was developed through an interagency effort led by the
 - U.S. Army Corps of Engineers,
 - Bureau of Reclamation, and
 - New Mexico Interstate Stream Commission
 - with many other contributing and cooperating agencies
- Used to simulate processes and operations of facilities in New Mexico.







Model Updates

- Model Reformatted to Meet Needs
 - Daily Accounting Model Runs
 - AOP Model Runs
 - Planning Runs – 50+ Years
 - Real-Time Water Operations
(in development)

Model Updates

- Accounting
 - Single model for all Applications
 - Tracks water allocated for different users
 - Ruleset is not needed or used for Accounting Application
- Database and DMIs
 - Consolidated into a single database Data Storage System file
 - New DMIs with new RiverWare DMI dialog
 - DMIs simplified by matching records and slot names
 - DMIs set up for importing inputs from DSS for planning or historical runs
 - Historical data maintained in data objects in model



Model Updates

- Documentation
 - Database Management Plan (June 2013)
 - Rules (August/September 2013)
 - User Manual (July/September 2013)
 - Plan for Setting Up Real-Time Water Operations Modeling (August 2013)



Model Updates

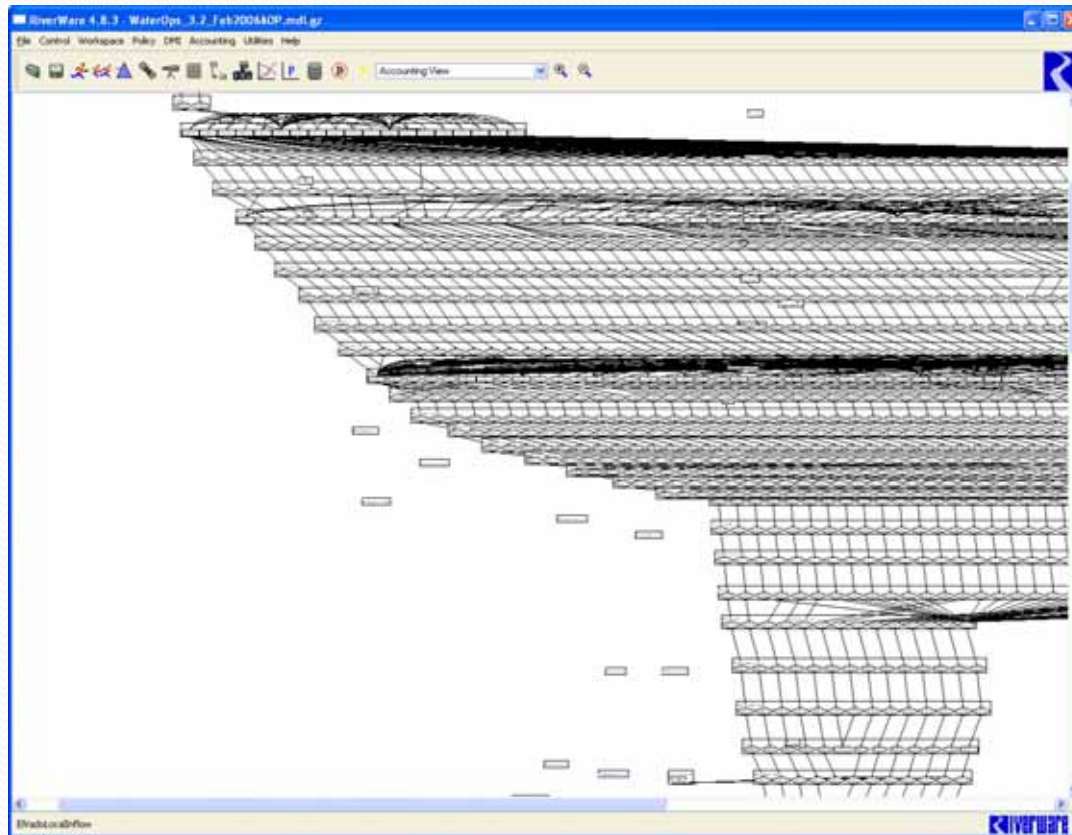
- Ruleset
 - Functions sorted into Utility Groups
 - Configuration adjusted for setting all individual deliveries for contractors for San Juan-Chama Project water
 - One Rule Policy for Emergency Drought Water Storage
 - Edited Slot Names & New Trigger Slots
 - New Unit Scheme for Unit Scheme Manager in RiverWare 6.3
 - Check Required Inputs (Initialization Ruleset)

Initialization Rules

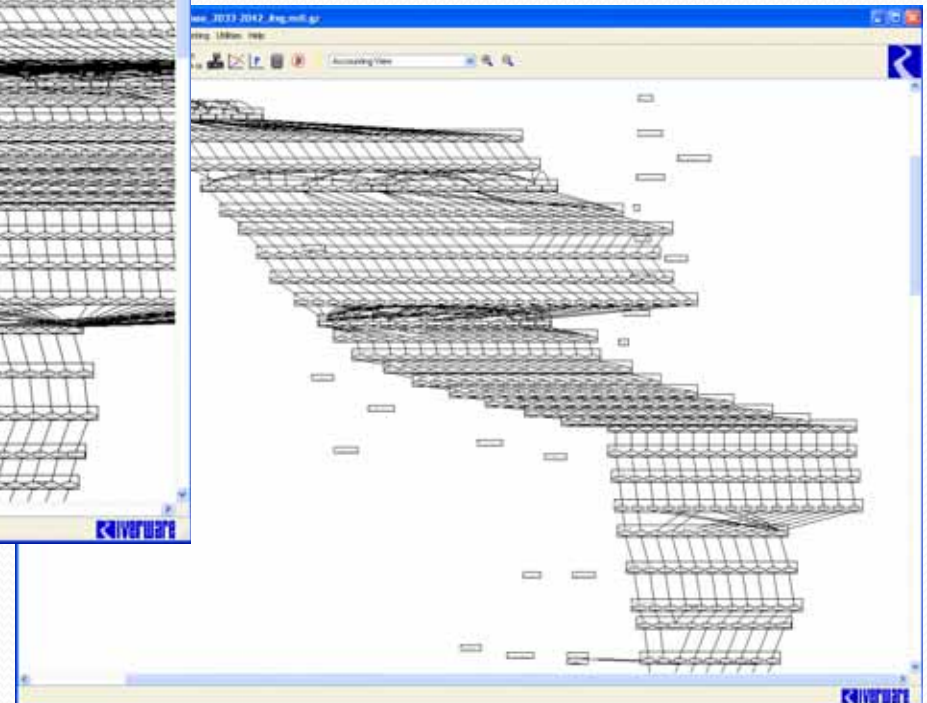
- Initialization rules edited to simplify and consolidate the operational rules
- RiverWare Initialization Rules Configured to set inputs for different applications
 - Synthetic/fill-in values set in Accounting Model for values not imported from Reclamation's Hydrologic Database (HDB)
 - Forecast inputs computed and set (AOP model runs)
 - Historical data set for planning runs based on any user set sequence of years

Previous Module Accounts

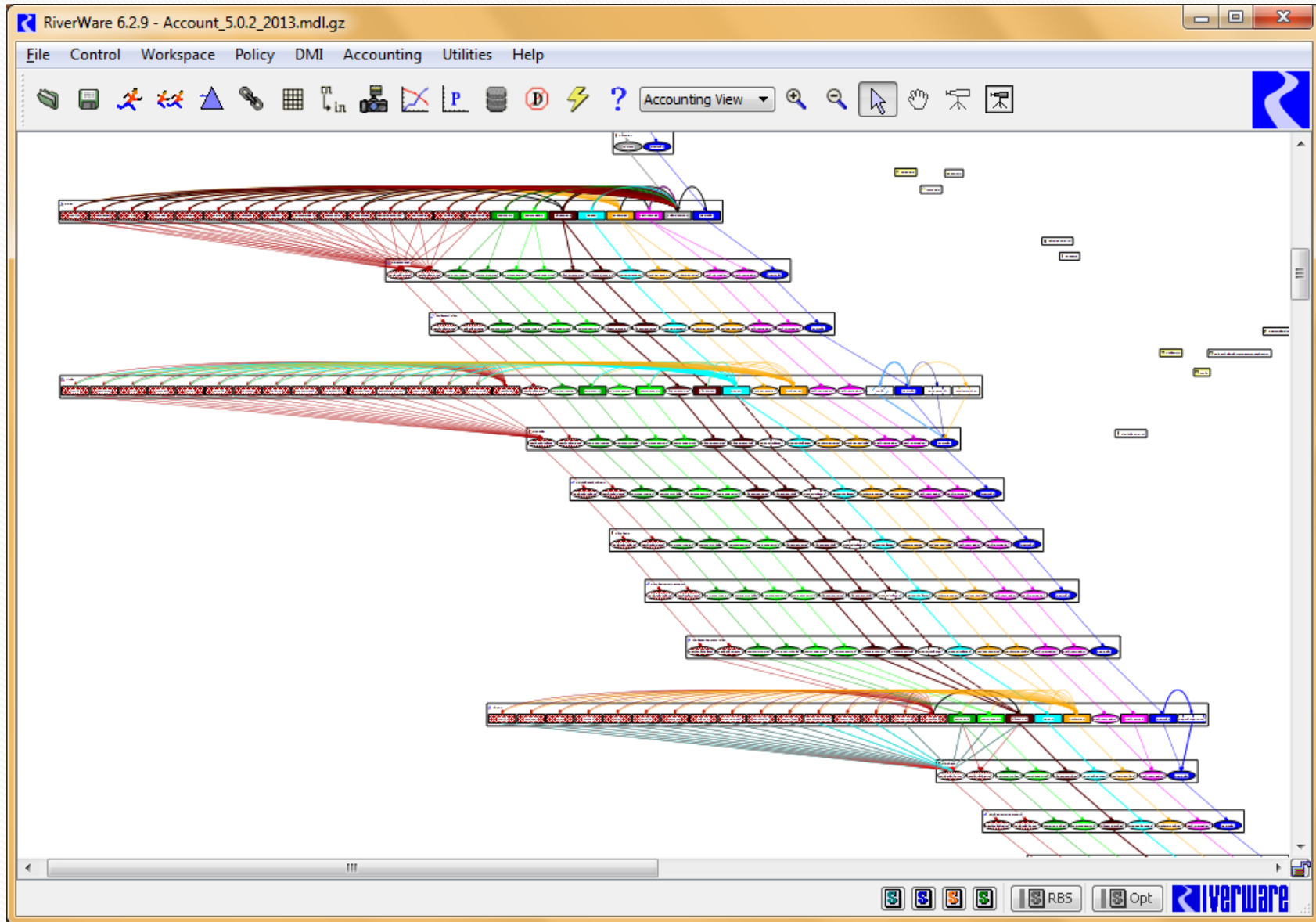
Water Operations/Accounting



Planning

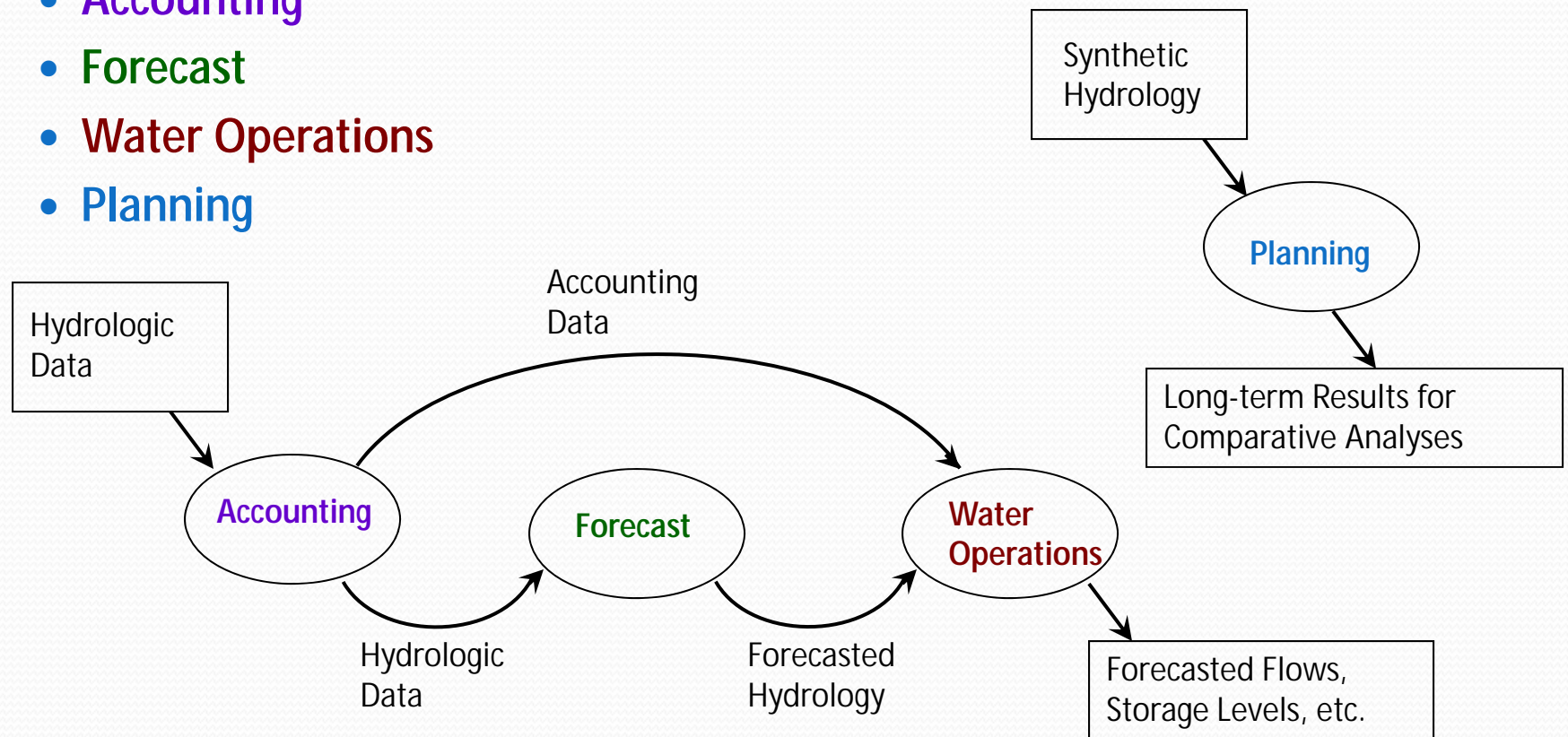


Accounts in New Single Model



Previous System

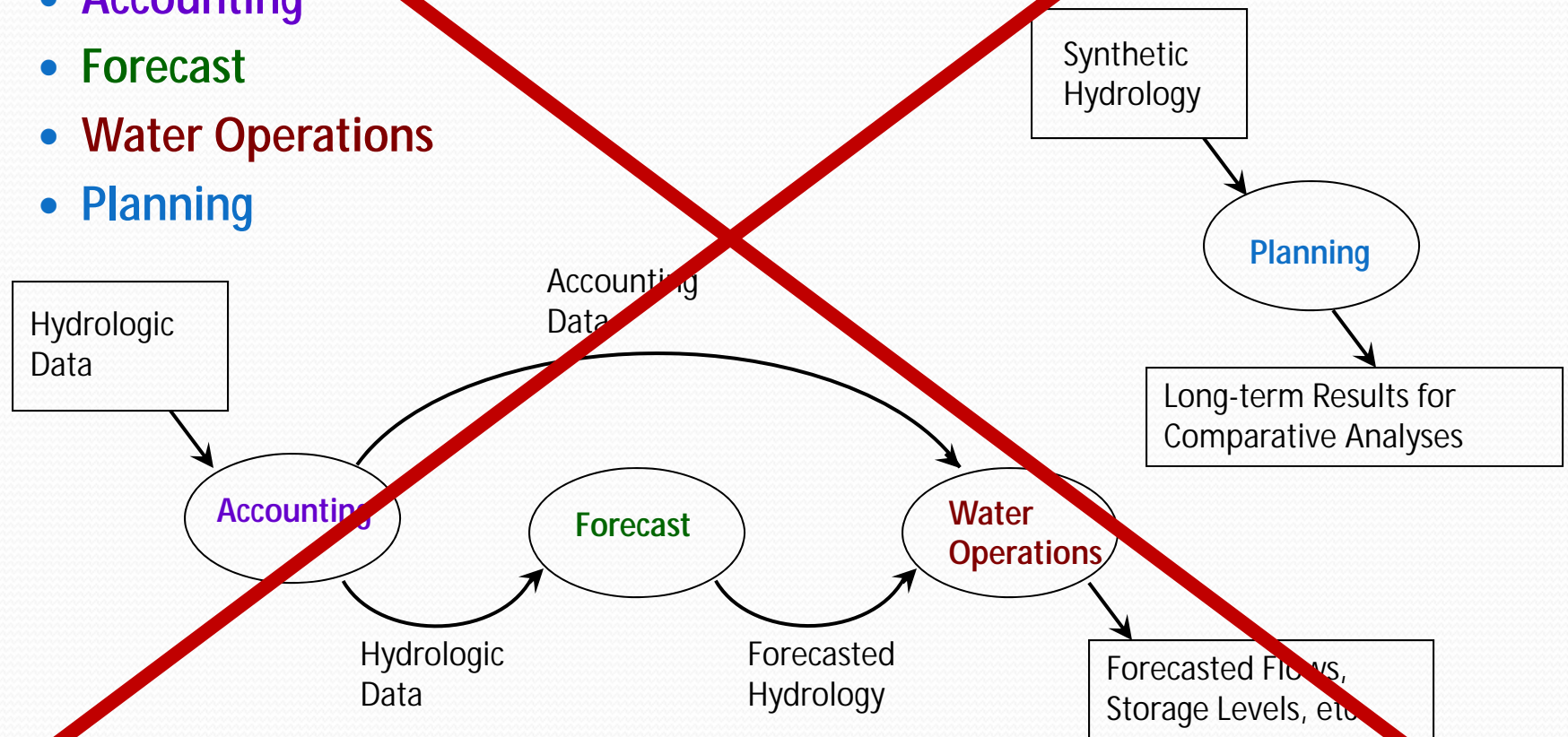
- Four separate daily timestep modules of URGWOM
 - Accounting
 - Forecast
 - Water Operations
 - Planning



Arrows represent data transfers from HEC-DSS data files via DMIs

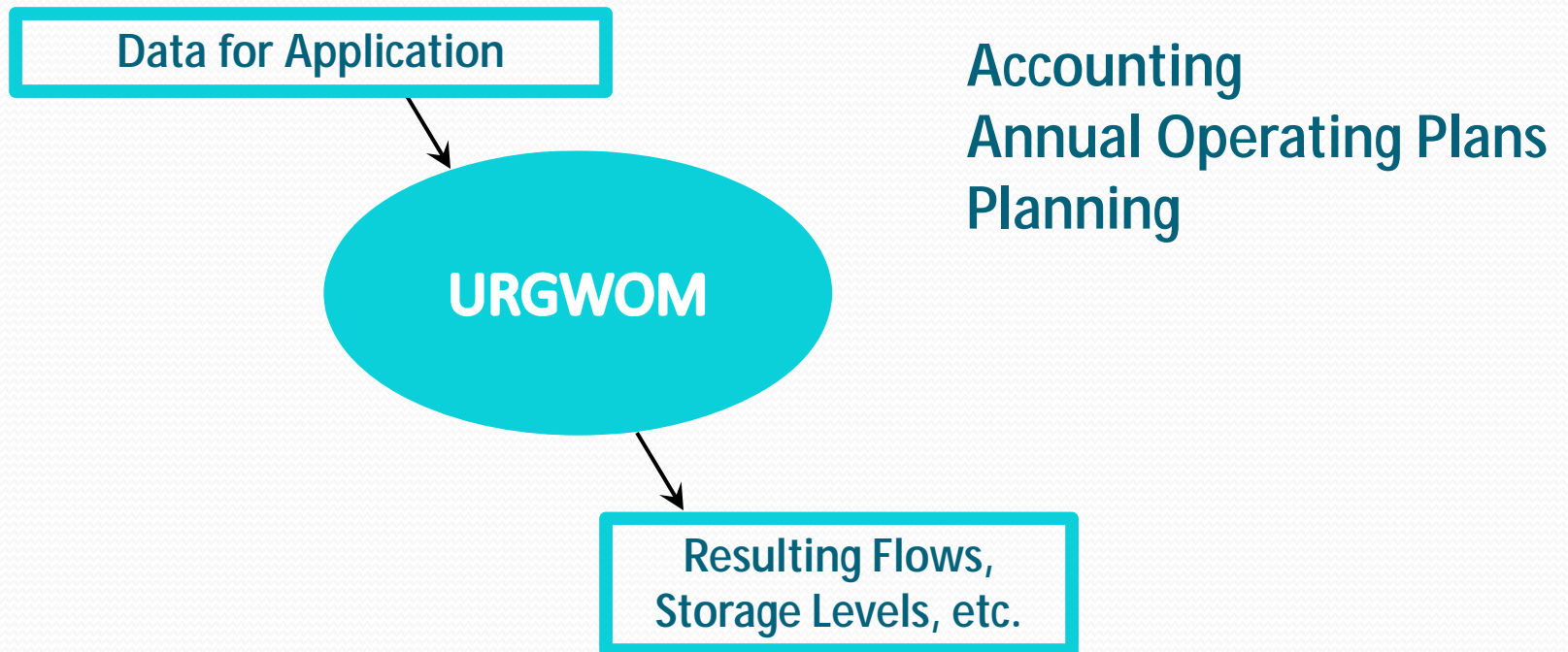
Previous System

- Four separate daily timestep modules of URGWOM
 - Accounting
 - Forecast
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 - Planning



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Single Model for all Applications



Questions?



<http://www.spa.usace.army.mil/Missions/CivilWorks/URGWOM.aspx>