# 



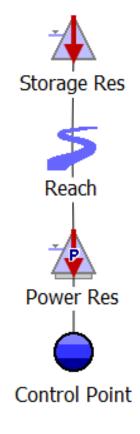
## Selected Enhancements to Object Methods and Water Quality

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2015 RiverWare User Group Meeting February 3, 2015

#### **Unregulated Conditions**

- Remove the effects of a reservoir
  - Category: Disable Reservoir Processes
  - Method: Pass Inflows
- New Dispatch Method:
  - Outflow = Inflow
    - + Return Flow
    - + Hydrologic Inflow
- Use to compute project impacts
- Scripts automate the process



#### Water User Soil Moisture

- Track Soil Moisture Volume
- Refill with excess diversions or pumping
- Consume soil moisture when diversions are insufficient

- Water User Methods:
  - Irrigation Requests with Soil Moisture
  - Proportional Shortage with Soil Moisture
  - Supplement Diversions including Soil Moisture

#### Water Quality Method Selection

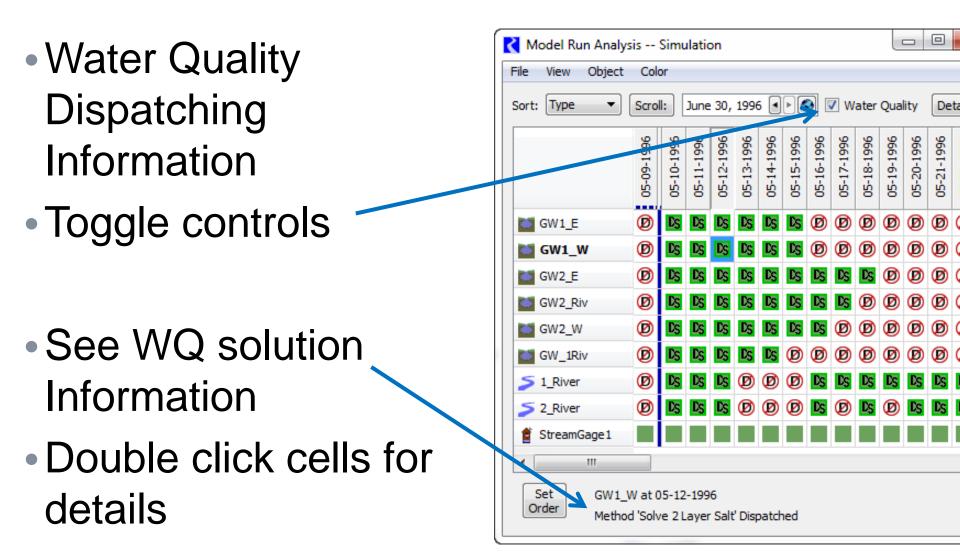
6.6

#### Selection mechanism change 6.5

Simulation Run Parameters		Simulation Run Parameters
☑ Water Quality	<ul><li>Inline Process</li><li>Post Process</li></ul>	Water Quality Or Post Process
WQ Constituent	WQ Solution Approach:	Copen Object - Power Res
Salinity None Salinity Salinity and Temp Temperature Temp and DO Salinity, Temp and DO	Simple Well-Mixed	File Edit View Slot Account   Object Name: Power Res   Level Power Reservoir Object   Slots Methods Accounts Accounting Methods Attributes Description   Selected Method: None Input Outflow Layered Temp Layered Temp Layered Temp and Salt   Input Outflow Layered Temp and Salt Layered Temp and DO Layered Temp Salt and DO Layered Temp Salt and DO   Surcharge Re Well Mixed Salt Low Flow Releases None Input Outflow

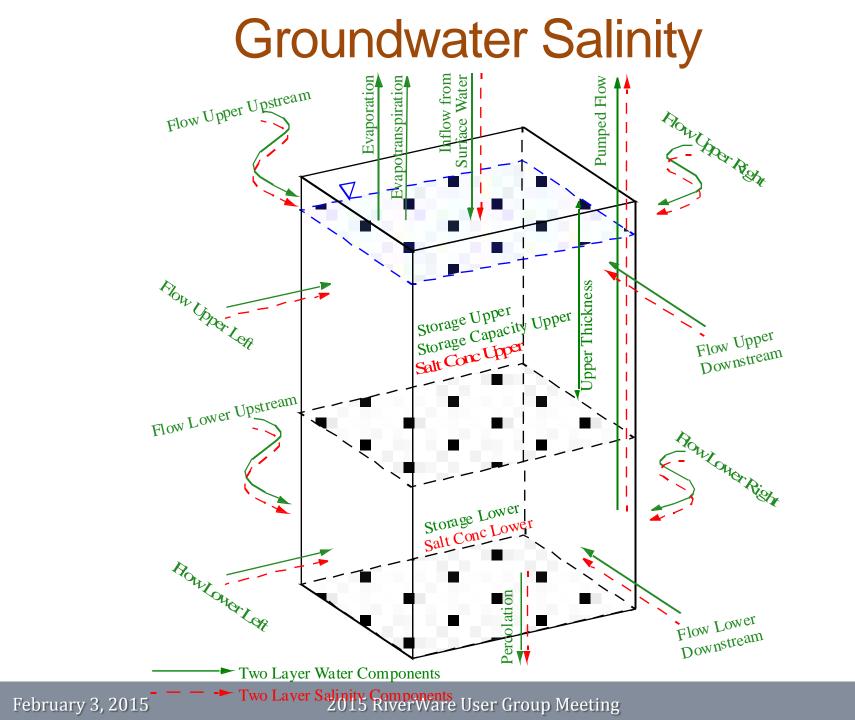
Targeted water quality modeling

### Water Quality Run Analysis



#### **Reach Salinity Modeling**

- Salt mass for flows near zero
- Diversion Salt Mass > Inflow Salt Mass
- Improved upstream solution



#### Upcoming

- Improved reservoir modeling
  - Layers based on Temperature and Salinity
  - Ability to model seasonal mixing, under flows, and over flows based on Inflow conc and temp