



Center for Advanced Decision Support for
Water and Environmental Systems (CADSWES)

UNIVERSITY OF COLORADO **BOULDER**

RiverSMART

2023 RiverWare User Group Meeting
Mitch Clement



RiverSMART Overview

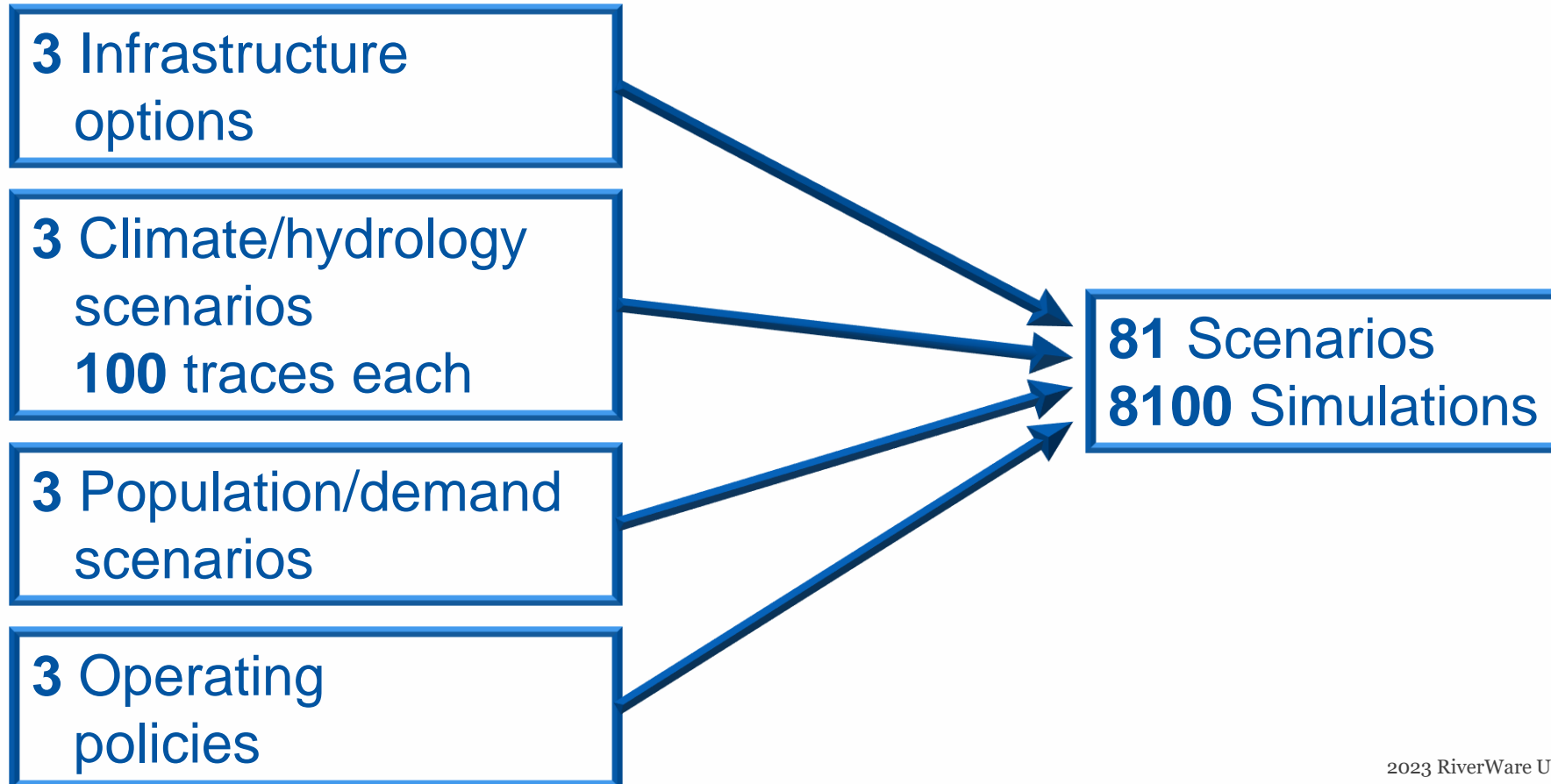
RiverWare Study Manager And Research Tools

- Framework to manage large and complex planning studies
- Scenarios from combinations of input categories
 - Inflow scenarios, demand scenarios, policies, ...
- Graphical representation of study configuration
- Simulate with RiverWare concurrent MRM
- Manage post-processing of results

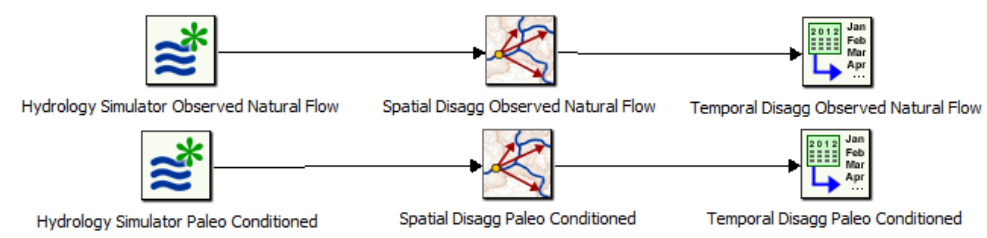


Why use RiverSMART

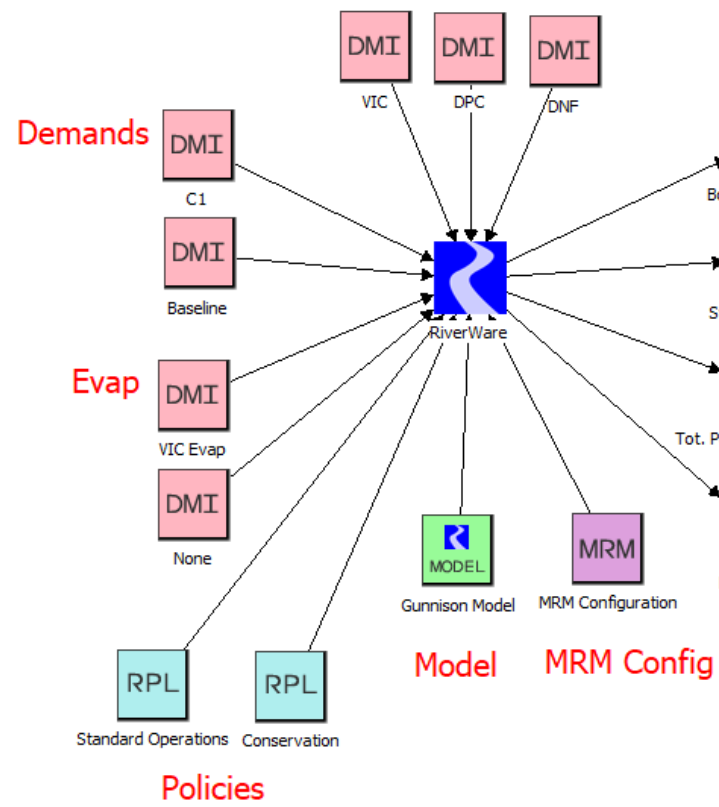
- Example: Evaluate infrastructure changes
 - 50-year horizon → Uncertainty!



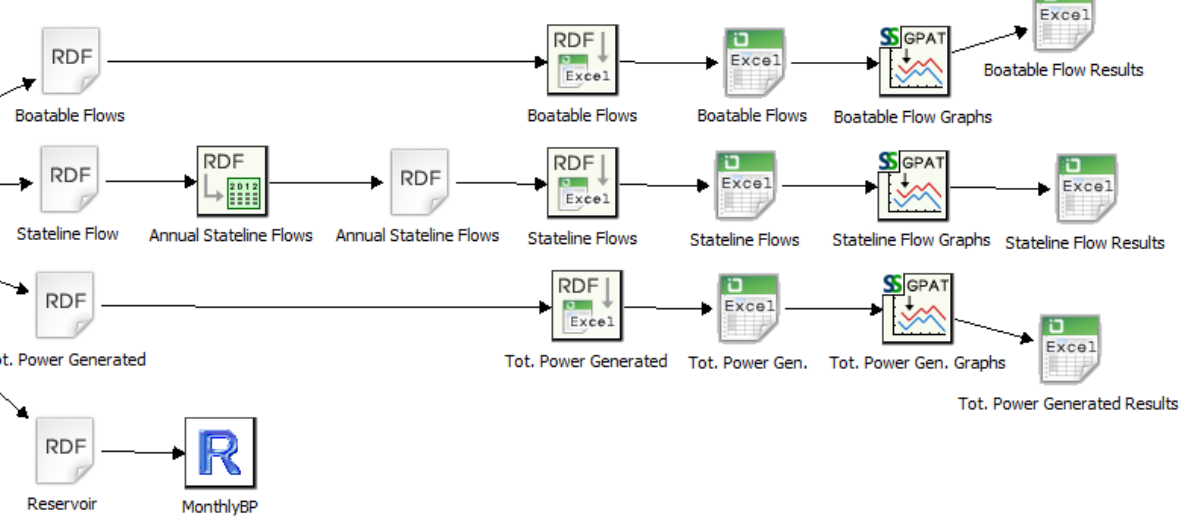
Hydrology Simulator



Supplies



Results

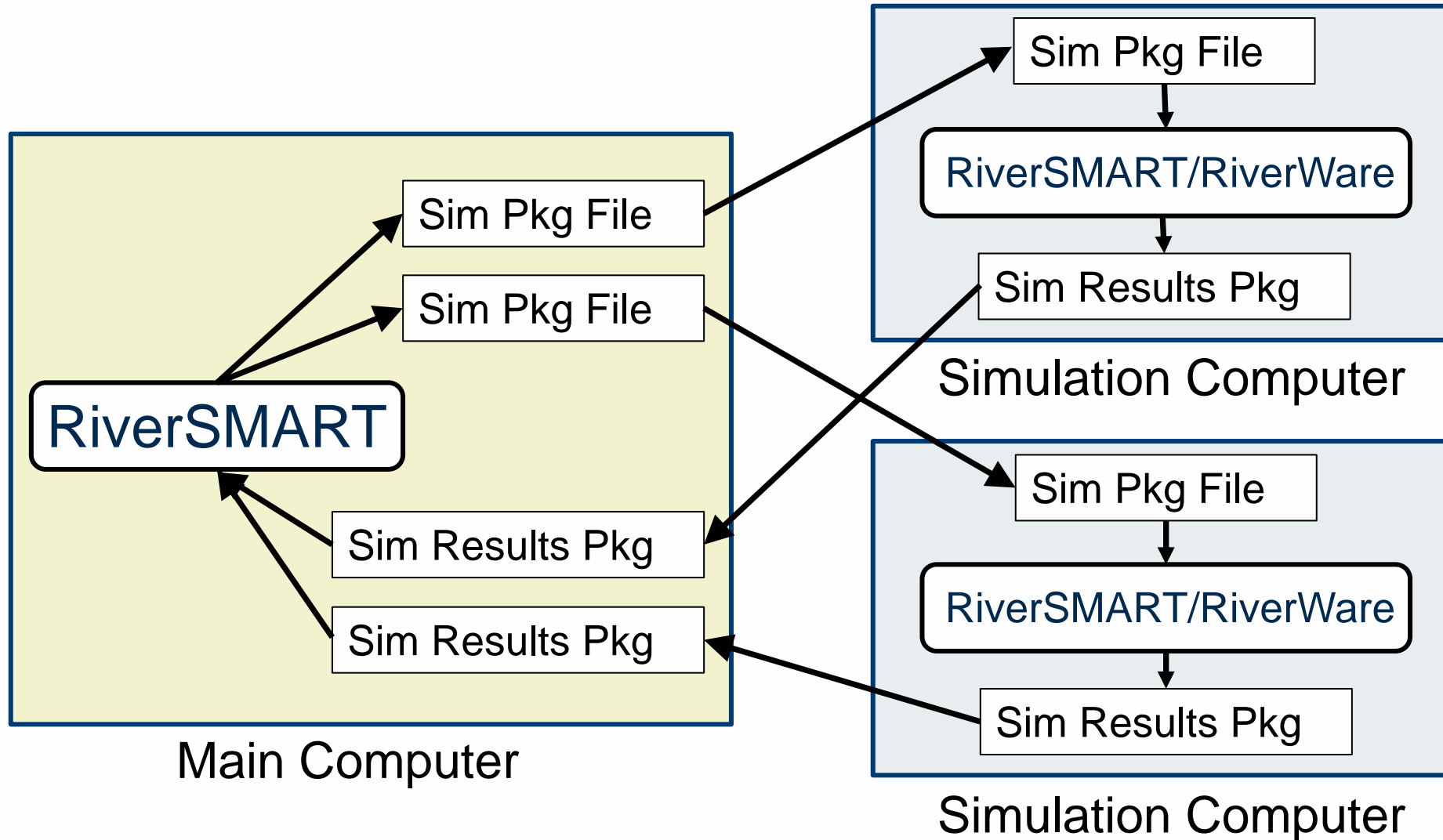




Why use RiverSMART

- Organize scenarios
 - Consistent naming format
 - Consistent file structure
- Manage simulations
- Post-process scenarios
 - Built-in
 - Customized
- Archive results
 - Defined folder structure
 - Reproducibility
- Track status and study updates
- Distribute scenarios – reduce simulation time
 - To the cloud
 - To multiple desktops

RiverSMART – Distribute in the Cloud



- Divides study into packages
- Distribute to
 - Cloud VMs
 - Multiple desktops
- Recombines for post-proc.

RiverSMART Now Included with RiverWare

- Frequently there are coordinated changes in RiverSMART and RiverWare
- Releases are synchronized (same version numbers)
- Compatible versions are implicitly required, but not enforced
- Solution: release RiverSMART with RiverWare Installers

