



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

UNIVERSITY OF COLORADO **BOULDER**



RiverWISE for Stakeholder Engagement

2019 RiverWare User Group Meeting
David Neumann

User Roles



Developer

- Trained to use RiverWare
- Builds or Edits
- Understands details of model and policy

Operator

- Uses RiverWare often
- Rarely edits model/policy
- Run one or more scenario

Stakeholder

- Little RiverWare experience
- Investigate model layout
- Run scenarios





RiverWISE

- Stakeholders want to
 - Investigate a Model – View model layout
 - Modify inputs to run different Scenarios
 - View Results and Tradeoffs
 - Communicate!
- Easy to use
- Low cost

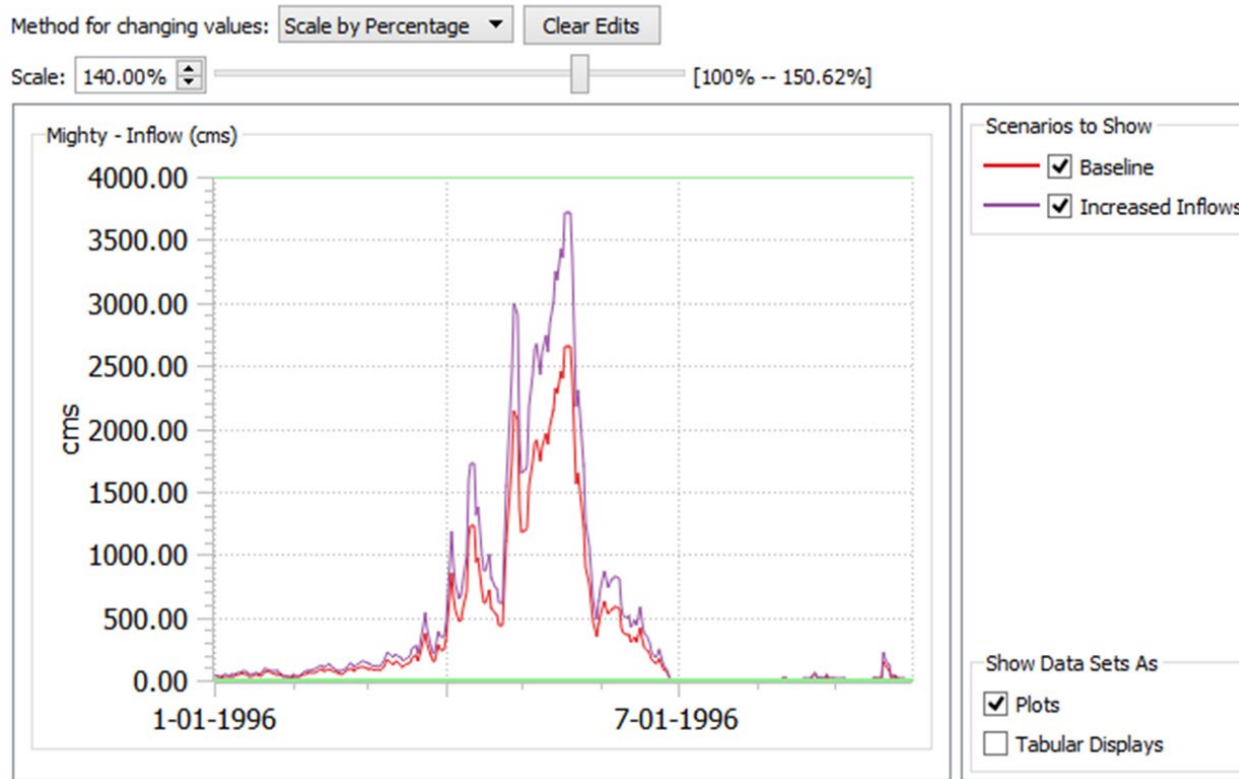


Licenses and Installation

- For Stakeholders:
 - Separate installer and executable
 - Download from riverware.org/RiverWISE/
 - Free license required
- For Developers:
 - RiverWISE included in RiverWare installations
 - No additional license required

Recent Enhancements

- Select multiple input data sets
- Scale by percentage or offset by constant
- Plots show Minimum and Maximum values



Demo: Export to RiverWISE

Export to RiverWISE

File

Exporting results from the last run, completed at 2017-Jul-12 10:57:05.

Export File Specification

Folder: R:/doc/UsersGroup/19Aug/Models/

File Name Root: MightyBuffaloDemo

File Name: MightyBuffaloDemo.2019Aug25080904.wise

Model/Run Name: Mighty Buffalo Stakeholder Exploration

Model/Run Description

This is a sample model used for stakeholder exploration of the Mighty Buffalo basin.

Stakeholders can modify various inputs including Inflow above Mighty, diversion schedules, minimum flows, and maximum channel flows.

Baseline Scenario Name: Base Condition

Input Slots (Series, scalar, and table slots that will be editable in RiverWISE)

| Name | Setting | Value |
|--|-------------|-----------|
| <input checked="" type="checkbox"/> Mighty.Inflow | Lower Bound | 0 cms |
| <input checked="" type="checkbox"/> Green Valley Data.Diversion Schedule | Upper Bound | 3,500 cms |
| <input checked="" type="checkbox"/> Red River Gage.Gage Inflow | | |
| <input checked="" type="checkbox"/> Big River Gage.Gage Inflow | | |

Settings >>

Result Slots (Series slots that will be viewable in RiverWISE)

| Name |
|--|
| <input checked="" type="checkbox"/> Mighty.Pool Elevation |
| <input checked="" type="checkbox"/> Buffalo.Pool Elevation |
| <input checked="" type="checkbox"/> Mighty.Outflow |
| <input checked="" type="checkbox"/> Mighty Unregulated Spill |

Export Export & Open In RiverWISE Close

Demo: Model and Scenarios

RiverWISE - Mighty Buffalo Stakeholder Exploration

File Help

RiverWare Model and Scenarios Edit and Run Scenarios View Results Log

RiverWare Model / Run - Mighty Buffalo Stakeholder Exploration

Original File Name: MightyBuffaloDemo.2019Aug25080622.wise
Run Range: 1996-Jan-01 24:00 - 1996-Sep-30 24:00

This is a sample model used for stakeholder exploration of the Mighty Buffalo basin.

Stakeholders can modify various inputs including Inflow above Mighty, diversion schedules, minimum flows, and maximum channel flows.

Open in Separate Window

Scenarios

| Name | Last Executed | Description |
|------------------|----------------------|-------------|
| * Base Condition | 2019-Aug-25 08:06:17 | |

↑ ↓ - Edit Description...

Create New Scenario

Name: Base input values on scenario: Base Condition Create

Change Series Units

Demo: Edit and Run Scenarios

RiverWISE - Mighty Buffalo Stakeholder Exploration

File Help

RiverWare Model and Scenarios Edit and Run Scenarios View Results Log

Scenario: **Reduced Inflows** Scenario with Decreased Inflows only

Input Data Sets

| Location | Name | Modification From Baseline | Data Type | Minimum | Maximum |
|-------------------|--------------------|----------------------------|-----------|---------|-----------|
| Mighty | Inflow | Scaled by 50% | Series | 0 cms | 3,500 cms |
| Green Valley Data | Diversion Schedule | None | Series | 0 cms | 1,500 cms |
| Big River Gage | Gage Inflow | Scaled by 50% | Series | 0 cms | 3,000 cms |

Edit Multiple Data Sets

Method for changing values: **Scale by Percentage** Clear Edits

Scale: **50.00%** [0% -- 131.79%]

Red River Gage - Gage Inflow (cms)

Scenarios to Show

- Base Condition
- Reduced Inflows
- Reduced Demands

Show Data Sets As

- Plots
- Tabular Displays

Run Scenario (Reduced Inflows)

Status: Execution of the Scenario "Reduced Inflows" Complete

2019 RiverWare U Scenario Execution Succeeded at 2019-Aug-25 08:16:30 Change Series Units August 28 and 29, 2019 9

Demo: View Results

