

Trinity River Restoration Program

Science Symposium

March 30 – Friday, April 1, 2016

Weaverville, California

Purpose: Present the TRRP Decision
Support System development.

TRRP Objectives



Restore the processes & attributes of a healthy alluvial river system.

Restore & sustain natural production of anadromous fish populations to pre-dam levels

Rehabilitate & protect wildlife habitats / populations

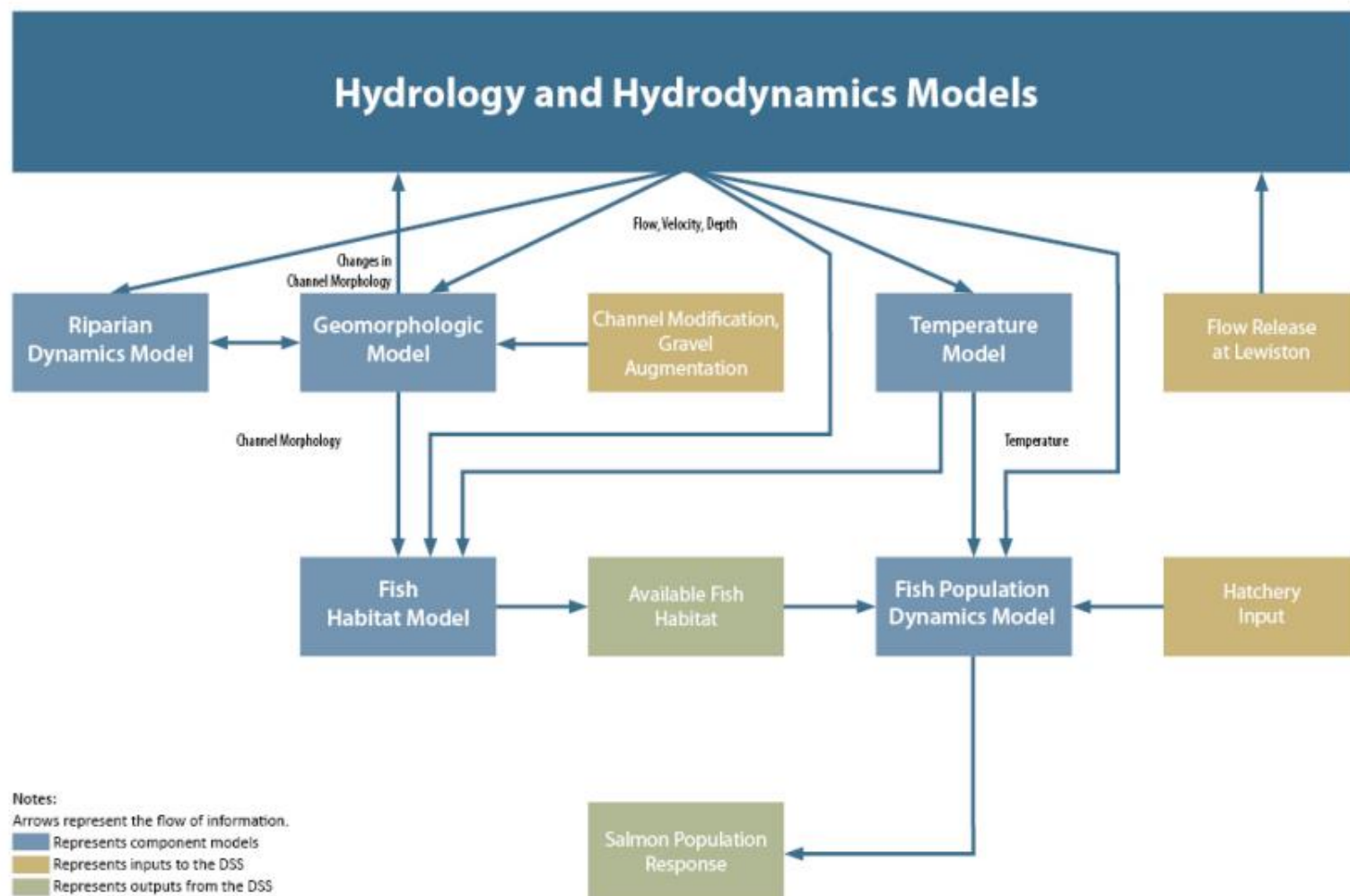
Establish & maintain riparian vegetation

Create & maintain spatially complex channel morphology

Increase habitat for all life stages of anadromous salmonids.

Improve riverine thermal conditions.

Minimize impacts of hatchery.

**Figure 14**

Model components of a Decision Support System for the Program. See Appendix H, Section 3.1 for further discussion.

TRRP Decision Support System

Component	Model(s)	Status
Hydrodynamics	SRH-1D SRH-2D HEC-RAS	In use In use In use
Riparian Dynamics	SRH-1DV SRH-2DV	Being developed Being developed
Geomorphologic	SRH-1D SRH-2D iSurf (bed size) SAM	In use In use In use In use
Temperature	RBM10	Being calibrated for use in WY16
Fish Habitat	SRH-2D or other habitat typing technique	Recommendation to be made by modelers within the month
Fish Population Dynamics	SSS	Being developed to the North Fork for use in WY16

SRH Sedimentation and River Hydraulics
HEC-RAS Hydrologic Engineering Centers River
 Analysis System
V Vegetation
iSurf Inverse Surface Model

SAM Stable Channel Analytical Model
RBM River Basin Model
WY16 Water Year 2016
SSS Stream Salmonid Simulator

Other Potential Models

- Bird model
- Frog and turtle distribution model
- Frog egg mass desiccation model
- Outmigrant timing model - YT