



Big Lost River Basin Modeling Technical Advisory Committee Roles and Responsibilities

Presented by Sean Vincent
November 16, 2022

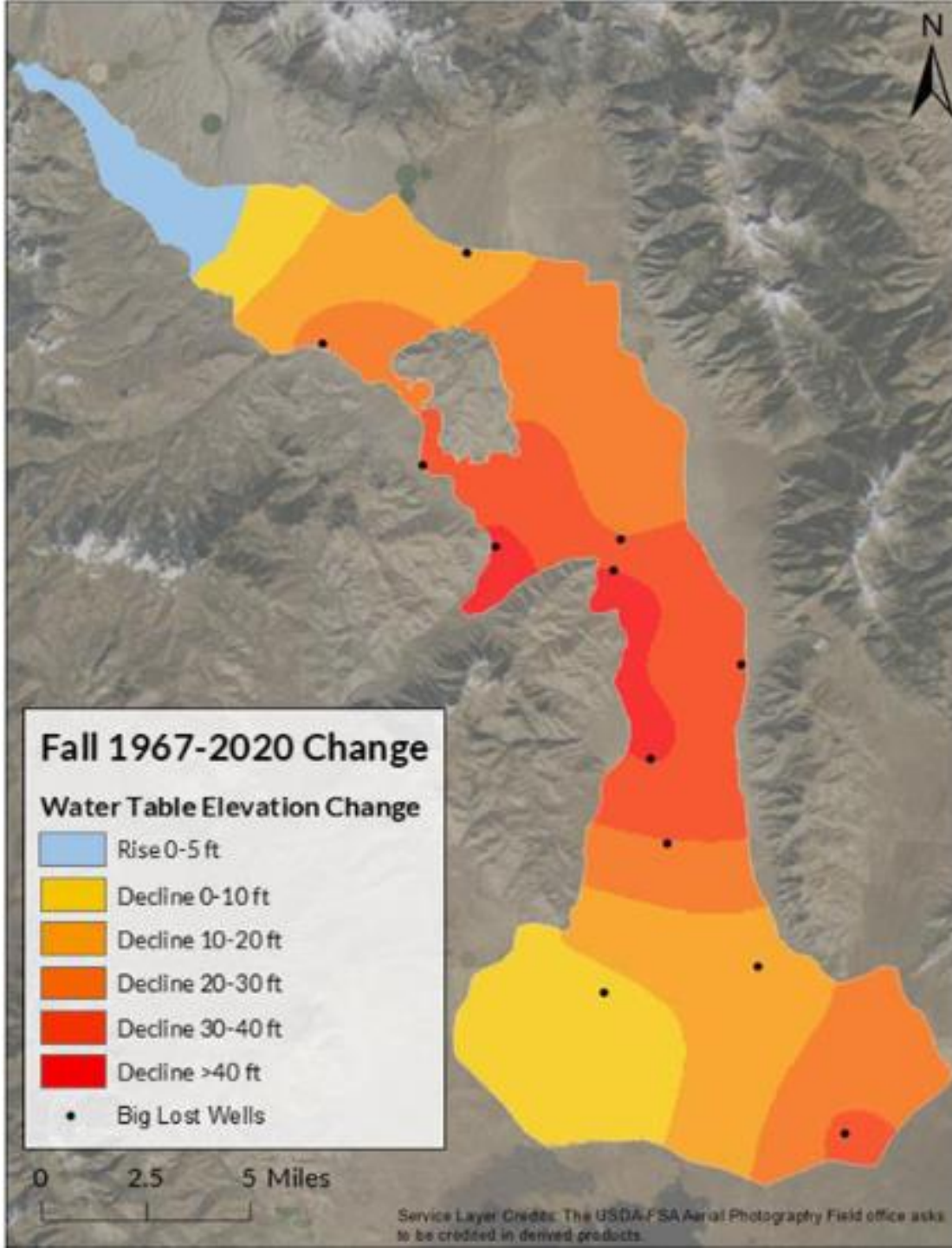


Talking Points

- Background
 - Why a groundwater flow model?
 - What is the scope of work?
 - Who will do the work?
 - When will it happen?
- Roles and Responsibilities
 - USGS
 - IDWR
 - IWRB
 - MTAC

Why a groundwater flow model?

- Long-term trend of declining aquifer water levels



Why a groundwater flow model?

- Long-term trend of declining aquifer water levels
- Groundwater and surface water are hydraulically connected
- Need to be able to evaluate gw/sw interaction
- GW flow model is tool of choice for planning, water resource management, and conjunctive administration

What is the scope of work?

- Task 1 – Project initiation
 - Kickoff meeting(s)
 - Establish model objectives
 - Literature review
- Task 2 – Conceptual model development
- Task 3 – Data retrieval/preparation

What is the scope of work? (cont'd)

- Task 4 – Numerical model development
 - MODFLOW
- Task 5 – Model scenarios
 - Define w/ input from MTAC
- Task 6 – Prepare report summarizing model construction and results
 - Publish as USGS Scientific Investigation Report

Who will do the work?

- Collaboration between IDWR and USGS
 - USGS is unbiased entity w/ expertise & resources
 - IDWR involvement allows customization of tool for IDWR and IWRB uses
 - USGS & IDWR have history of successful collaboration (e.g., SVRP, Wood River Valley, and TV models)

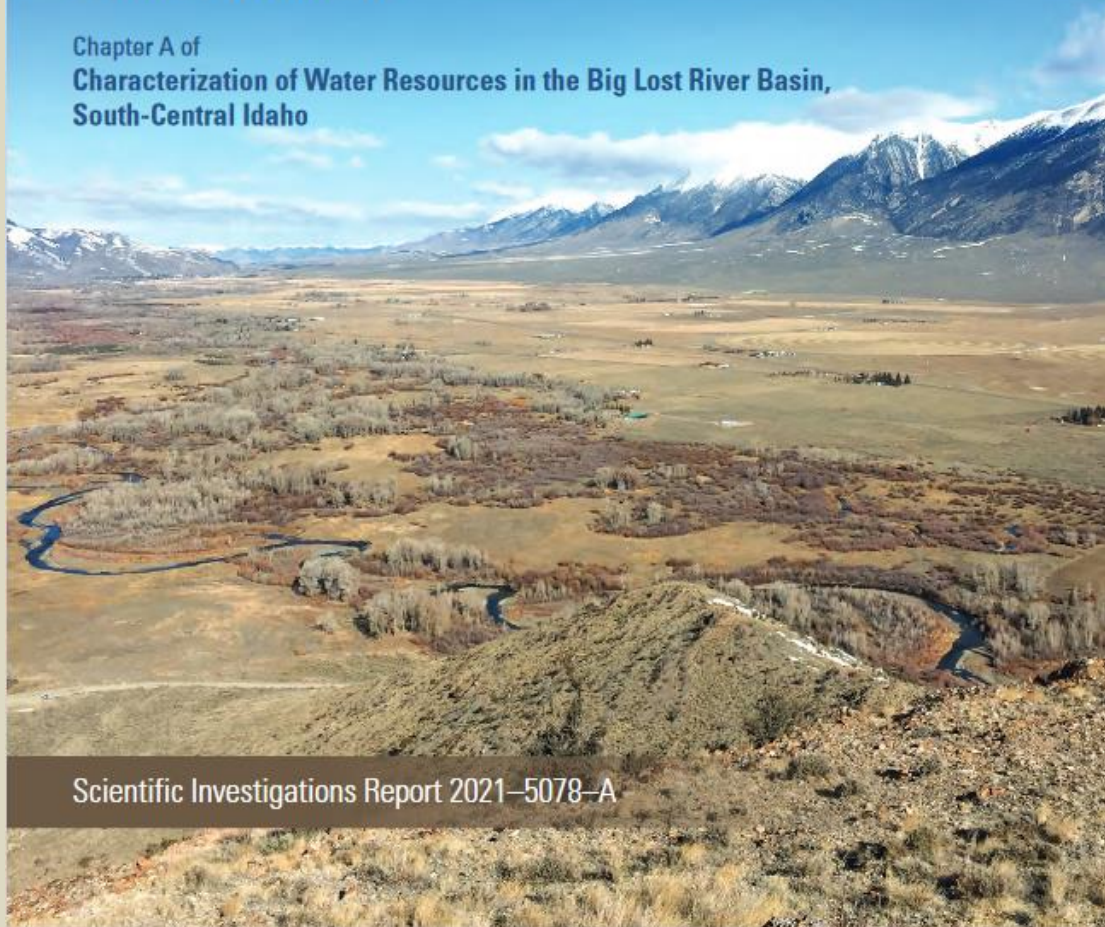
When will it happen?

- Project is funded and underway
- Timing excellent because recent USGS/IGS & IDWR studies lay groundwork for model development
 - Hydrogeologic Framework report - September 2021
 - GW/SW Interactions report - September 2021
 - Monitoring Well Installation report - July 2022
 - Water Budget report - November 2022
- Model rollout scheduled for June 2025

Prepared in cooperation with the Idaho Department of Water Resources

Hydrogeologic Framework of the Big Lost River Basin, South-Central Idaho

Chapter A of
**Characterization of Water Resources in the Big Lost River Basin,
South-Central Idaho**

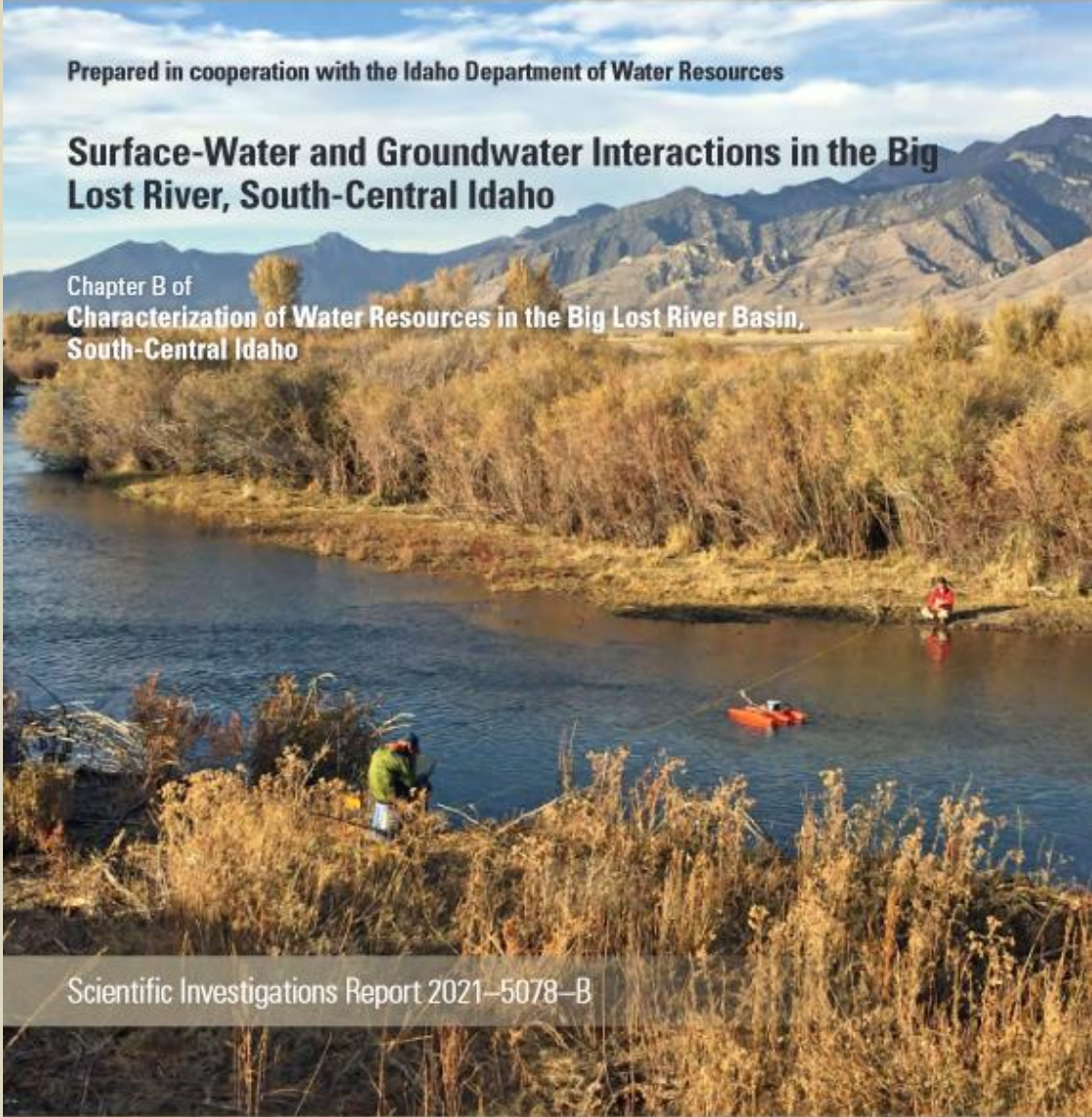


Scientific Investigations Report 2021–5078–A

Prepared in cooperation with the Idaho Department of Water Resources

Surface-Water and Groundwater Interactions in the Big Lost River, South-Central Idaho

Chapter B of
Characterization of Water Resources in the Big Lost River Basin,
South-Central Idaho



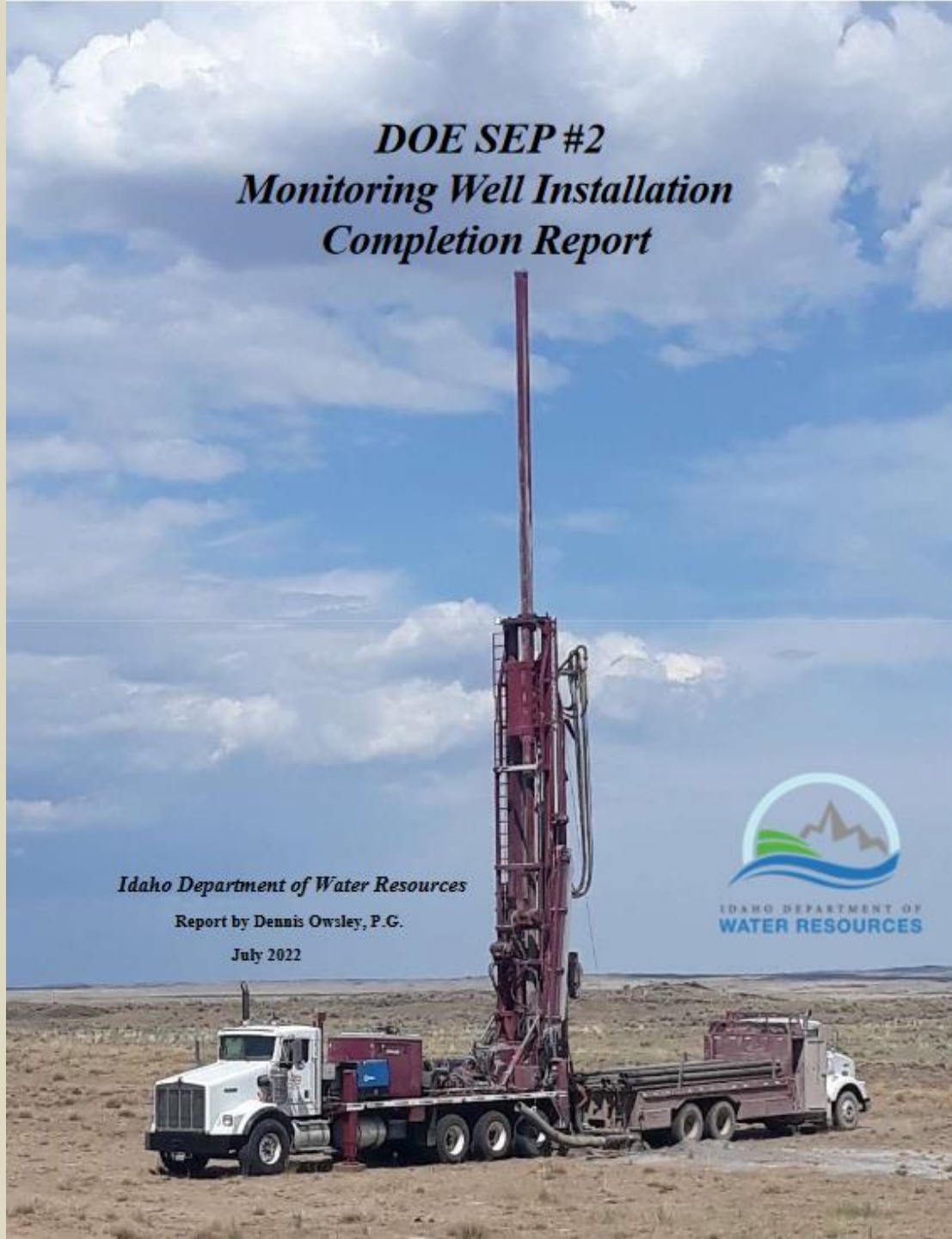
Scientific Investigations Report 2021-5078-B

***DOE SEP #2
Monitoring Well Installation
Completion Report***

Idaho Department of Water Resources

Report by Dennis Owsley, P.G.

July 2022



Prepared in cooperation with the Idaho Department of Water Resources

Groundwater Budgets for the Big Lost River Basin, South-Central Idaho, 2000–19

Chapter C of
**Characterization of Water Resources in the Big Lost River Basin,
South-Central Idaho**



Scientific Investigations Report 2021–5078–C

U.S. Department of the Interior
U.S. Geological Survey

Roles and Responsibilities

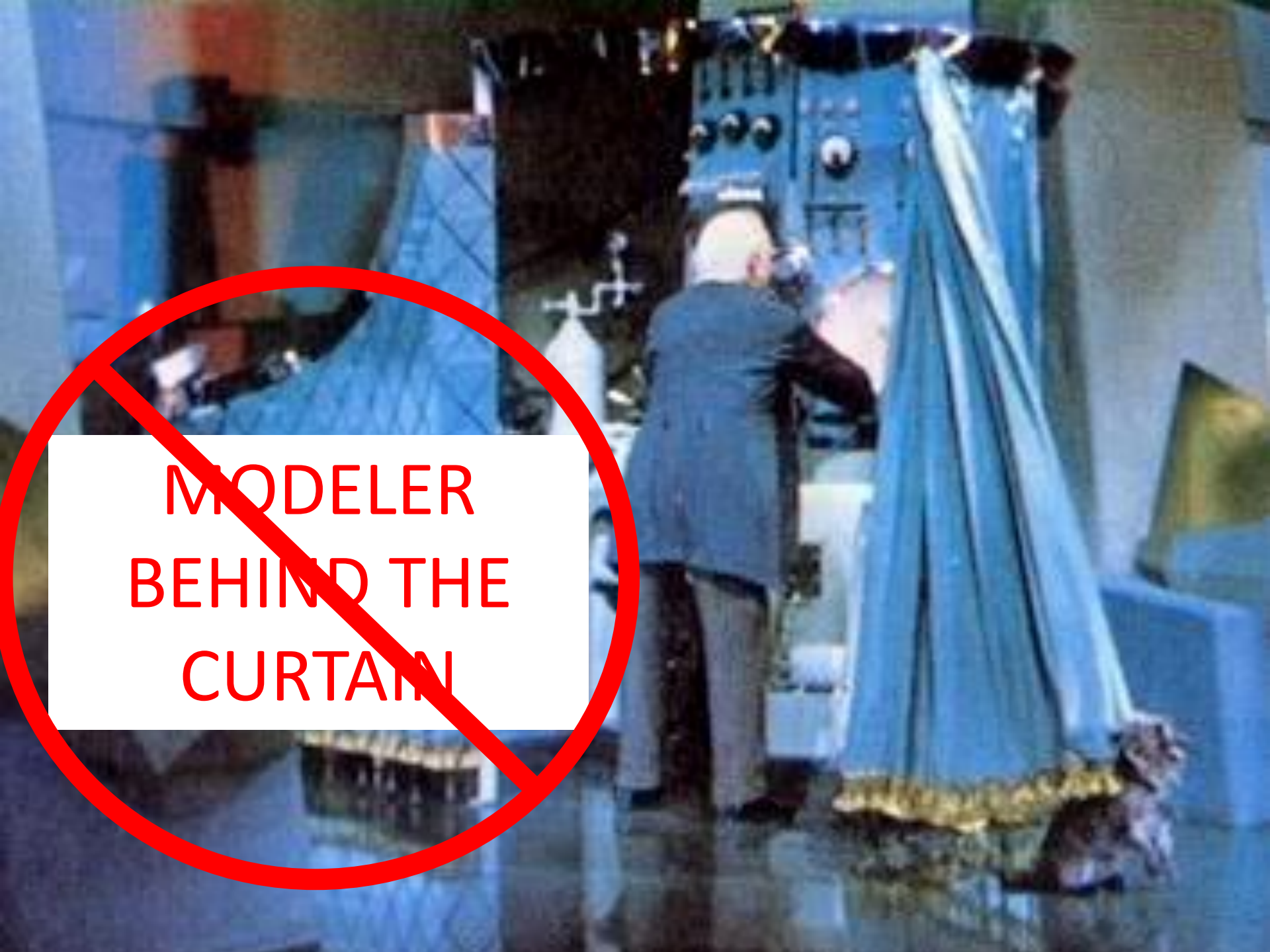
- USGS responsible for model construction, calibration, and report preparation
 - Stephen Hundt = lead investigator
 - Jacob Knight = modeler
 - Paul Thomas = hydrologist
- IDWR is end user, will facilitate MTAC meetings, and provide modeling support

Roles and Responsibilities (cont'd)

- IWRB also is anticipated end user and is providing project financing via the Aquifer Planning and Management Fund

Roles and Responsibilities (cont'd)

- MTAC
 - Vehicle for technical stakeholder input
 - ✓ Conceptual and numerical models
 - ✓ Model scenarios
 - ✓ Peer review
 - ✓ Data sharing
 - Provides for transparency

A photograph of a man in a dark suit standing behind a blue curtain in a control room. The man is seen from the back, looking towards a panel of equipment. The scene is dimly lit, with the blue of the curtain being a prominent color. A large red prohibition sign (a circle with a diagonal slash) is overlaid on the image, covering the text and part of the man and curtain. The text is in a white box with red letters.

**MODELER
BEHIND THE
CURTAIN**

Roles (cont'd)

- IDWR [project webpage](#)
 - Disseminate data, documents, model files, etc. among dispersed committee members & public
 - Archive meeting materials



Questions?