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INTEGRATING DATA ACROSS DISCIPLINES

BUILDING ENGAGEMENT THROUGH DATA USABILITY

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QUESTIONS

- Can data be usable for everyone?
- **MODELS**: Can they live beyond silos?
- **Model integration**: implications for policy
- **Usability**: Metadata, FAIR
- **Impact**: People and society?

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M.R.S. KEY WORDS

CONCEPTS

- Data
- Models
- Integration
- **ACCESSIBILITY**
- **METADATA**
- **REPRODUCIBILITY**

IMPLICATIONS

- Decision-making
- Governance
- Water Management
- Collaboration

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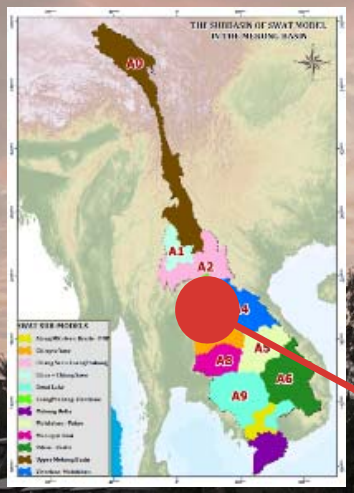
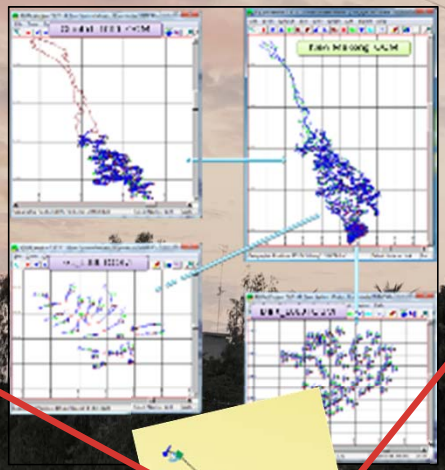
HYDROLOGIC MODELS

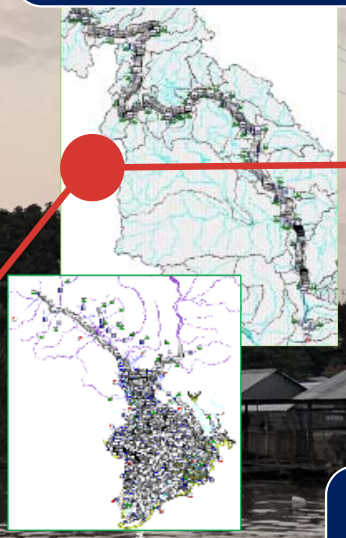
Soil and Water Assessment Tool –SWAT (DSF)



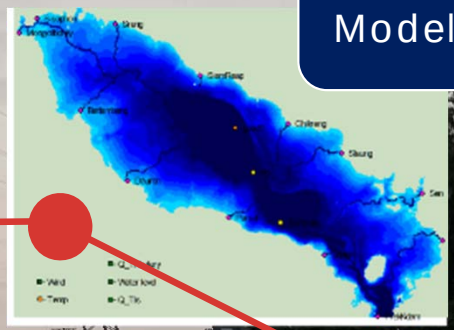
Water Resource IQQM (DSF)



Hydrodynamic sediment and water

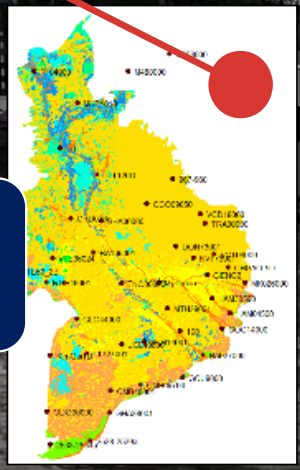


WUPFIN 2D-EIA Model (Tonle sap)



Water-Sediment Resource – eWater SOURCE

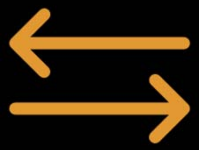
WUPFIN Assessment Tools



BASELINE MODEL CONSIDERATIONS

Determine inputs & outputs to be used

What datasets can be used for model input?



Coordinate information exchange

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VISUALIZING MODELS

How will model outputs be integrated and results be displayed?

Discussion of scenarios

OPEN

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"OPEN" DEFINITIONS

- open **SOURCE**: Refers exclusively to **software**
  - **Source code** for that software is openly available
  - Allows for code modification
  - software may be redistributed freely

- open **ACCESS**: refers to **unrestricted public access** to data **(OPEN DATA)**

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SCIENCE DATA LIFECYCLE

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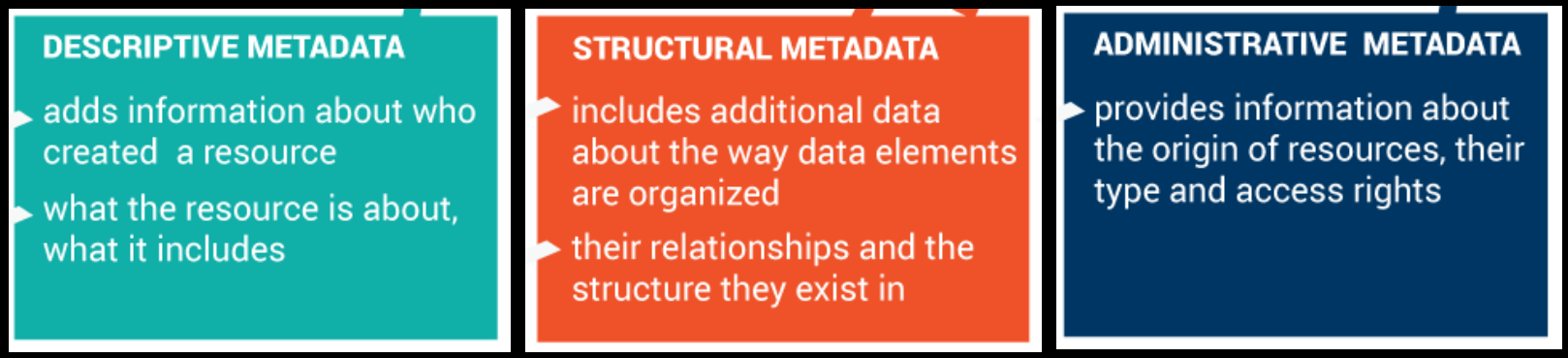
METADATA

- Maintain historical records of long-term data sets
- Makes up for inconsistencies that can occur in documenting data, personnel and methods.
- Can enable data sets designed for a single purpose to be reused for other purposes and over the longer term.



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FAIR DATA

FINDABLE (globally unique)

ACCESSIBLE (open)

INTEROPERABLE (consistent language)

REUSABLE (language agnostic)

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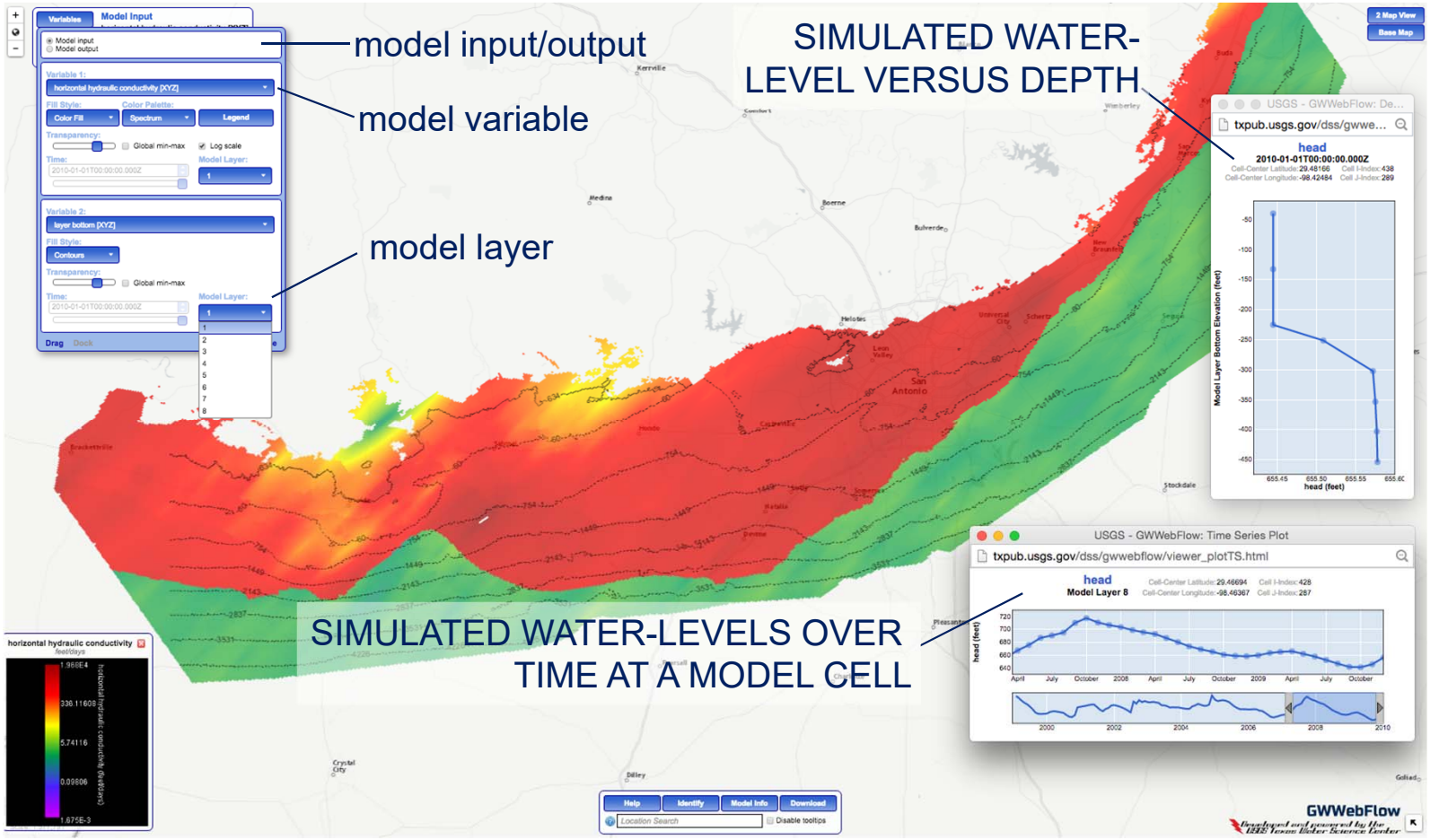
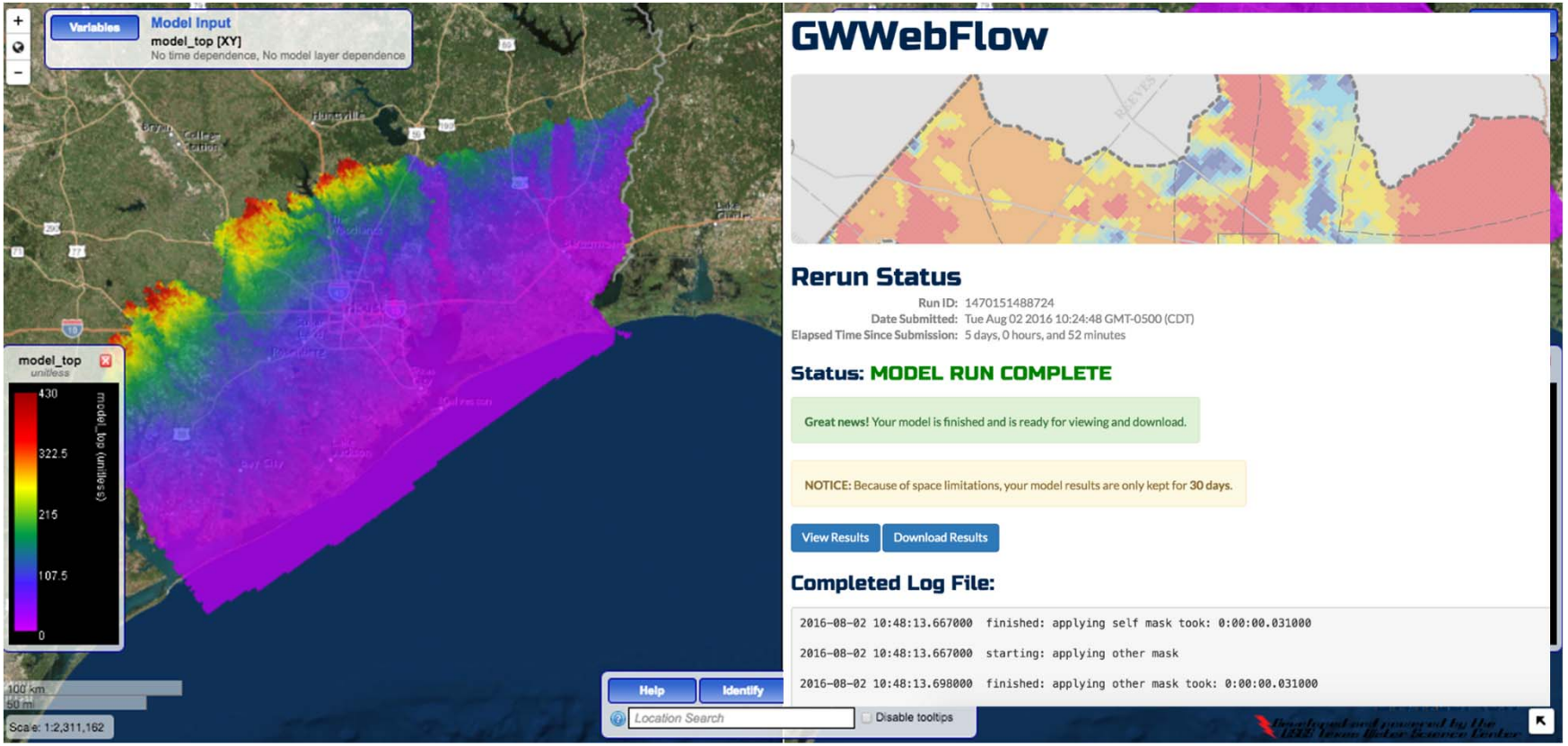
GROUNDWATER WEB FLOW




Variables
Model Input
model_top [XY]
No time dependence, No model layer dependence
model_top
unitless
430
322.5
215
107.5
0
model_top (unitless)
100 km
50 mi
Scale: 1:2,311,162
Help
Identify
Location Search
Disable tooltips
GWWebFlow
Rerun Status
Run ID: 1470151488724
Date Submitted: Tue Aug 02 2016 10:24:48 GMT-0500 (CDT)
Elapsed Time Since Submission: 5 days, 0 hours, and 52 minutes
Status: MODEL RUN COMPLETE
Great news! Your model is finished and is ready for viewing and download.
NOTICE: Because of space limitations, your model results are only kept for 30 days.
View Results
Download Results
Completed Log File:
2016-08-02 10:48:13.667000 finished: applying self mask took: 0:00:00.031000
2016-08-02 10:48:13.667000 starting: applying other mask
2016-08-02 10:48:13.698000 finished: applying other mask took: 0:00:00.031000