

Flood Manager

Stantec.io



1

**Model Process
Automation**

2

**Quality
Analysis**

3

**Model
Management &
Visualization**



Flood Manager

Stantec.io

Support | About |  KATHERINE OSBORNE
STANTEC

Stantec Demo → Test Model

Projects and Models



Create

Create a new model for a project by selecting the plus next to the project name.



Configure & Run

Upload your model input files, configure the settings, and queue it to run in the cloud.



Output

View the results of all model runs for a model.



Delete

Remove a model from Flood Manager.

Help



CONFIGURE & RUN

OUTPUT

- Model Type
HEC-RAS
- Model Description
Iowa Test
- Cloud Compute Size
compute - 16 cores
- Run Description
Run 1
- HEC-RAS Version
6.1.0
- Plans To Run
- Output Grids
- Run Plans In Parallel
- Run Post-Process Quality Report
- Advanced Settings

New folder
Sort by
Refresh

Iowa Test

Iowa Test

Search Iowa Test

model-config.json

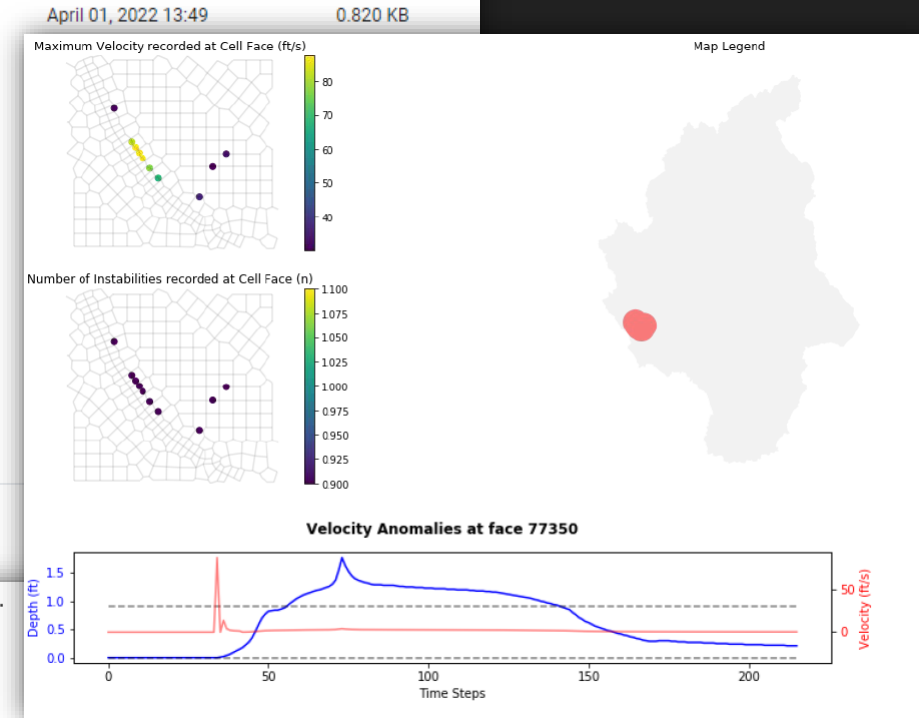
April 01, 2022 13:49
0.820 KB

Drop files anywhere to upload

The first run for the Iowa Test model under project IDNR for katherine.osborne@stantec.com has completed.

Step	Status
Preparing model data for parallel processing.	Success
Parallel hec-ras run for submodel-multi (version: 6.1.0; QAQC: True)	Success
Parallel hec-ras run for submodel-FW_NRD (version: 6.1.0; QAQC: True)	Success
Parallel hec-ras run for submodel-FW_Exist (version: 6.1.0; QAQC: True)	Success
Parallel hec-ras run for submodel-FW_3:1 (version: 6.1.0; QAQC: True)	Success
Parallel hec-ras run for submodel-FW_Fut (version: 6.1.0; QAQC: True)	Success
Merging parallel run output together.	Success

Go to [Flood Manager](#) for more information.





Plan

25yr_TII

Flood Depth

Flood depth results from HEC-RAS 2D models



View QA/QC

Legend ^



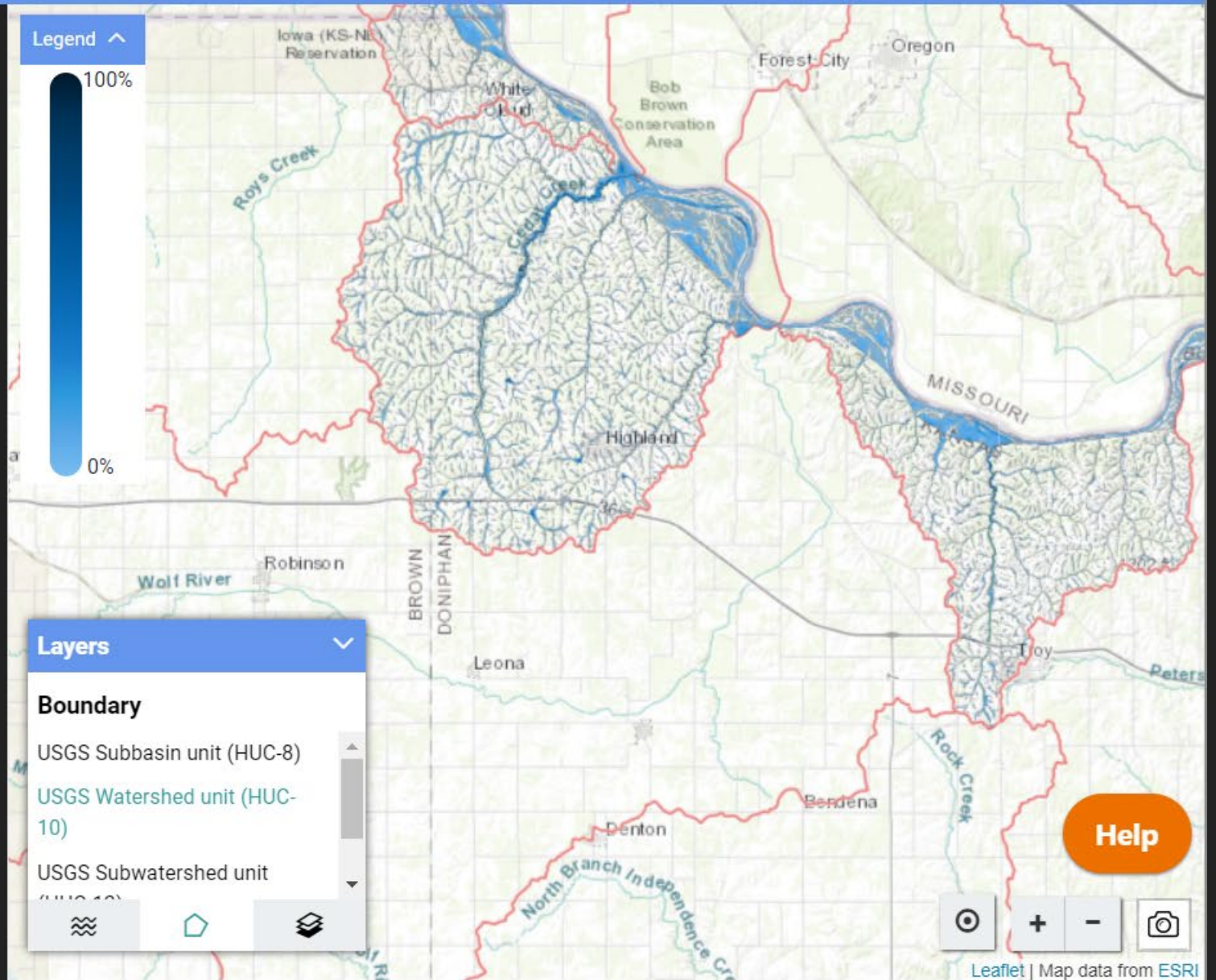
Layers

Boundary

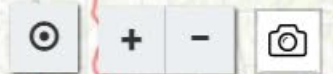
USGS Subbasin unit (HUC-8)

USGS Watershed unit (HUC-10)

USGS Subwatershed unit (HUC-12)



Help





Parallel Computing in Action

Example Using RAS 6.1:

- 12 Core CPU Workstation, 32GB RAM, SSD Windows 10
 - Runtime: 8hrs 2 min * 6 storms * 2 conditions (base/future)
 - 12 plans * 8hrs 2 min = 96hr 24 min (4 DAYS)
- 32 Core Flood Manager:
 - Runtime: 6hrs 18 min. * 6 storms * 2 conditions
 - 12 plans parallel * 6hrs 18 min + (splitting and recombining models) = 7hrs 48 min

Time savings of 3.5 days!



Flood Manager Benefits

1. Accommodates a consistent-cloud based modeling environment, georeferenced
2. Cloud-based parallel processing = speed = cost savings
3. Available on-demand, at scale from anywhere
4. Metadata driven model management and storage
5. Reduced project delivery time
6. Identify global errors with consistent quality control
7. IT costs

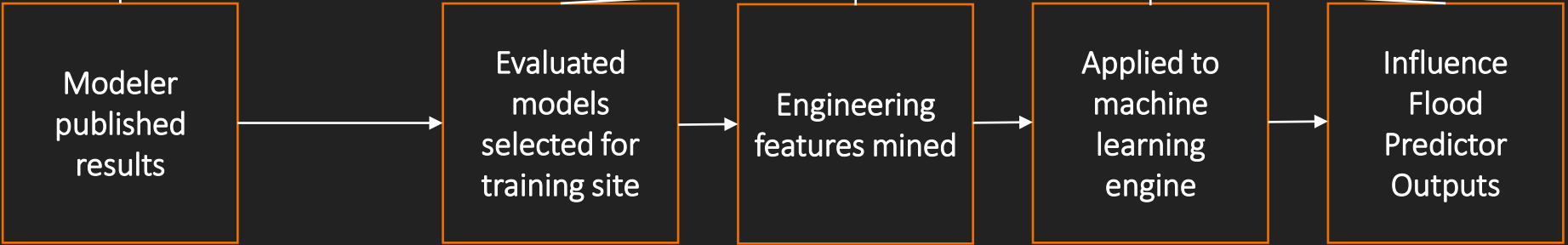


Flood Manager

Stantec.io

Flood Predictor

Stantec.io



Flooding Type
Flash Flood Riverine

Hydrologic Unit Code
071200040403

Recurrence Interval
100yr

Map Type
Probability Prediction

address search

FLOODING PROBABILITY

- 10% - 20%
- 20% - 30%
- 30% - 40%
- 40% - 50%
- 50% - 60%
- 60% - 70%
- 70% - 80%
- 80% - 90%
- 90% - 100%