


Expanding Tarrant Regional Water District's Flood Forecasting Capabilities





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HR trwd
Tarrant Regional Water District

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Meet the Team



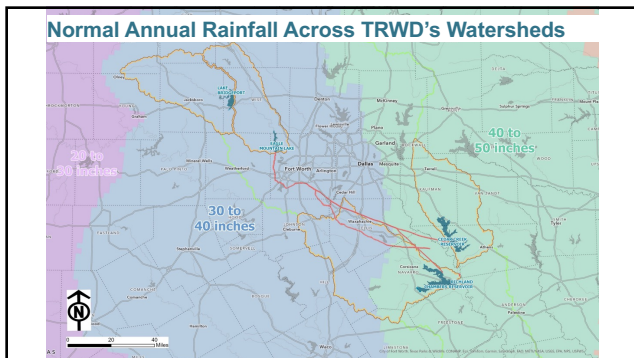
<p>Ashley Lowrie Water Resources Engineer</p>	<p>Emily Daniel Water Resources Project Manager</p>	<p>Maria Gonzalez-Tafolla Water Resources Engineer</p>	<p>Michael Konieczki Water Resources Project Manager</p>
			

Overview

- 1 TRWD Background and System Overview
- 2 TRWD Flood Operations
- 3 What is Aviso FS?
- 4 Aviso Workflow
- 5 Decide and Act!
- 6 Expanding to the East


TRWD Background & System Overview




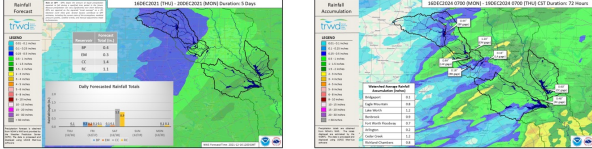


TRWD Flood Operations

What do we do?



 Regular System Monitoring

 During an event



Communication

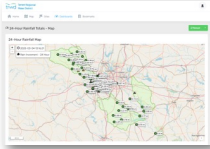
- Internal
- External Partners
 - Spillway operation changes
 - State-wide calls with RFC
 - USACE communication
 - Local Partners
- Public
 - Lake Level Blog on TRWD.com
 - Flood Line
 - OneRain Site



Flood Monitoring Toolbox



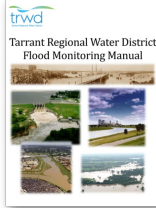
Gaging Network, Data Feeds & OneRain Site



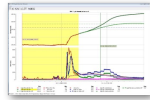
<https://trwd.onerain.com/>



Flood Manual & Policies



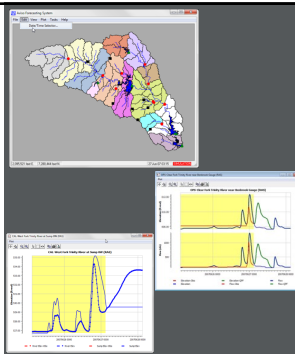
Forecasting Models (Aviso)

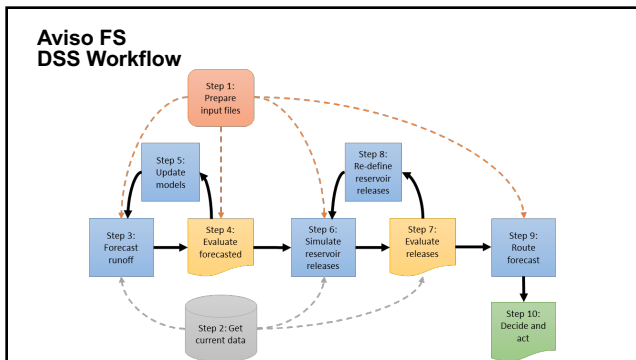


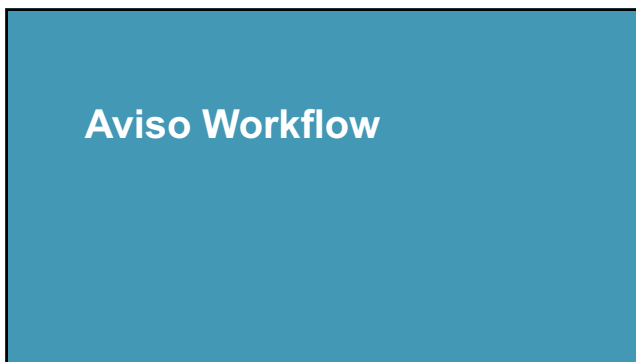
What is Aviso FS?

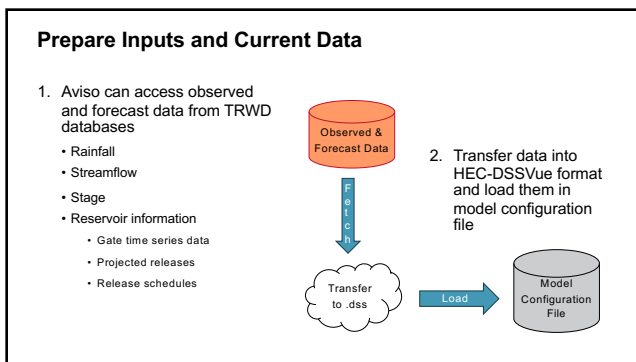
Aviso Forecasting System

- A reservoir operation decision support system
 - Informed release decisions during rainfall events
- Provides modeling, evaluation, and update capabilities
 - Retrieve and access real-time data
 - Forecast simulations
 - Data display
 - Data storage and publishing

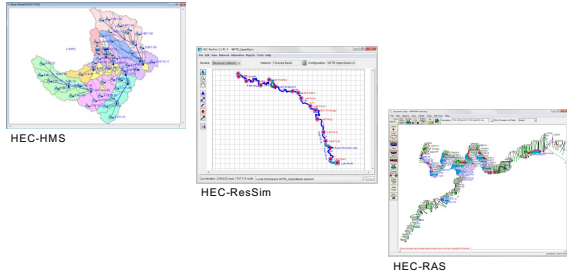




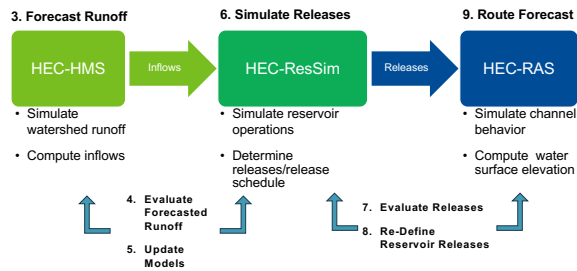




Forecast Simulations- The MVPs



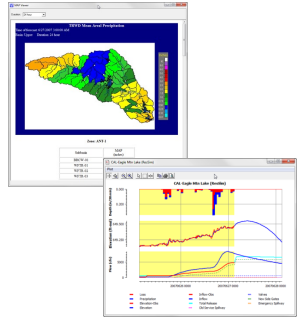
Forecast Simulations





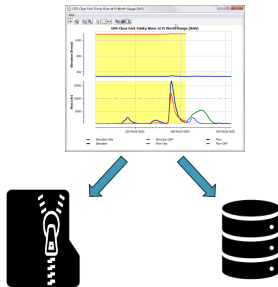
Data Display

- Display forecast simulation results
 - Report Tables
 - Graphs
 - Watershed maps
 - Inundation maps



Publish & Archive

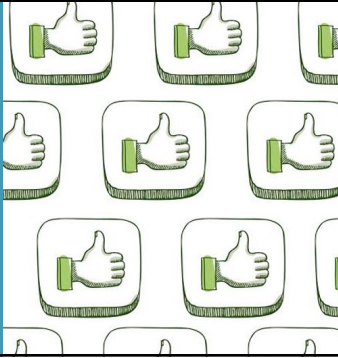
- Forecast run files
 - Compressed
 - Stored in database
 - Published internally (TRWD system)



Decide and Act!

Benefits of Aviso

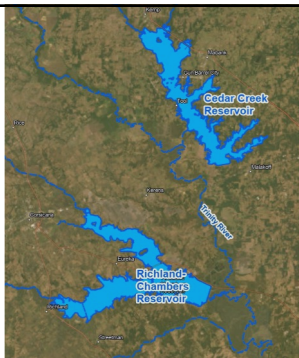
- LESS
 - Data processing and preparation
 - Opportunity for errors
- MORE
 - Forecast calibration
 - Decision making
 - Communication



Expanding to the East

Expanding to the Eastern Reservoirs

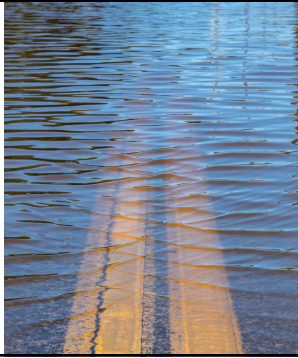
- Aviso is currently available for the Upper Trinity watershed
- Cedar Creek model now available
 - currently being tested by TRWD
- Richland-Chambers modeling underway



Expanding to the Eastern Reservoirs

It's important!

- Inform reservoir operators
 - Define operational guidelines
- Manage multiple flood events
 - Flood management
- Assess impacts of release decisions
 - Water supply





Thank you!
HDR trwd

