NOAA National Water Model
San Francisco Bay Area

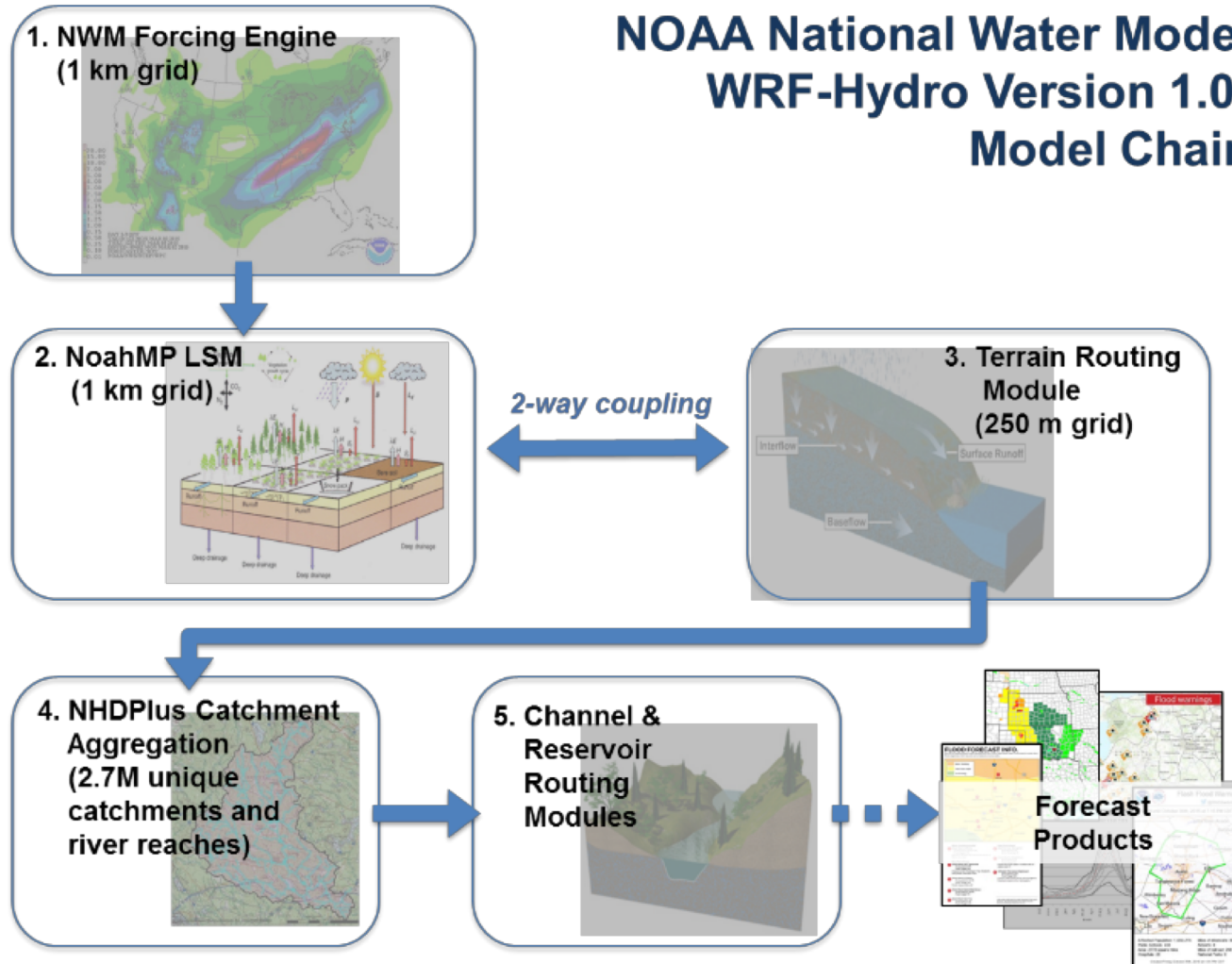**National Oceanic and Atmospheric Administration**
U.S. Department of Commerce
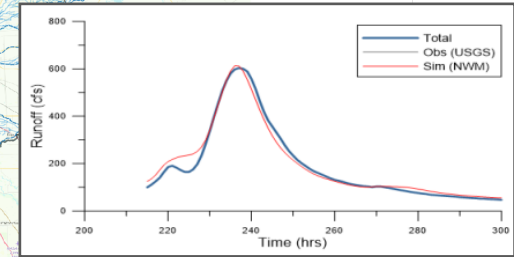
Jungho Kim

Lynn Johnson and Rob Cifelli

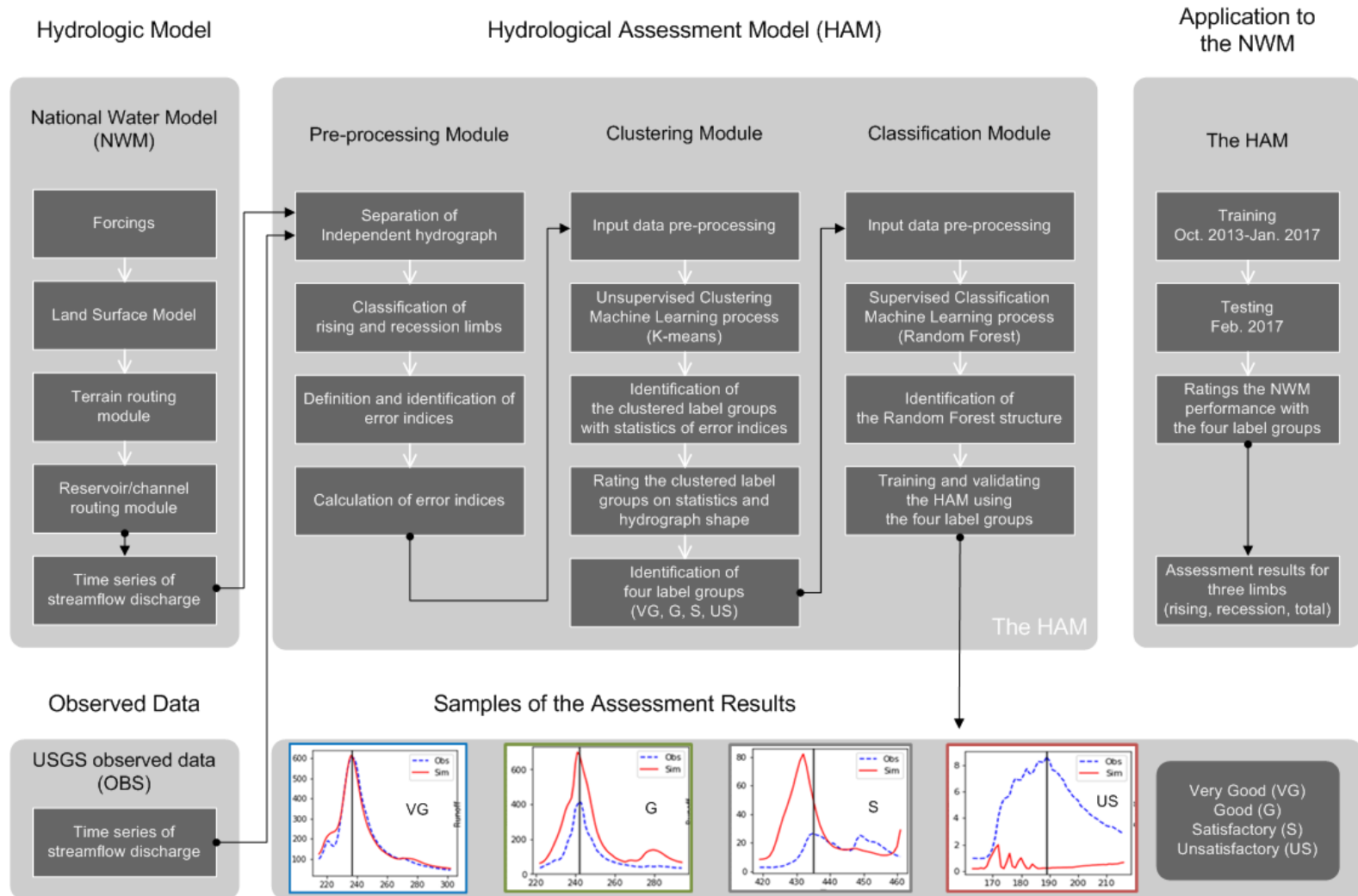# NOAA National Water Model (NWM)
San Francisco Bay Area
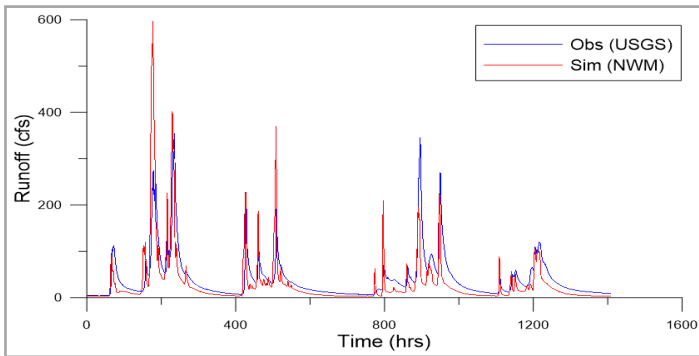
NOAA National Water Model (NWM)
San Francisco Bay Area
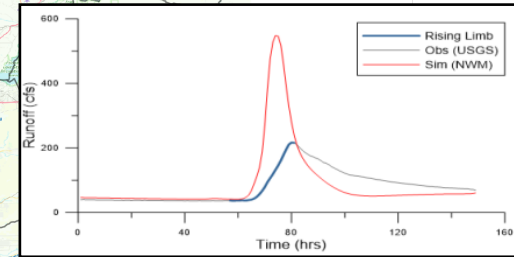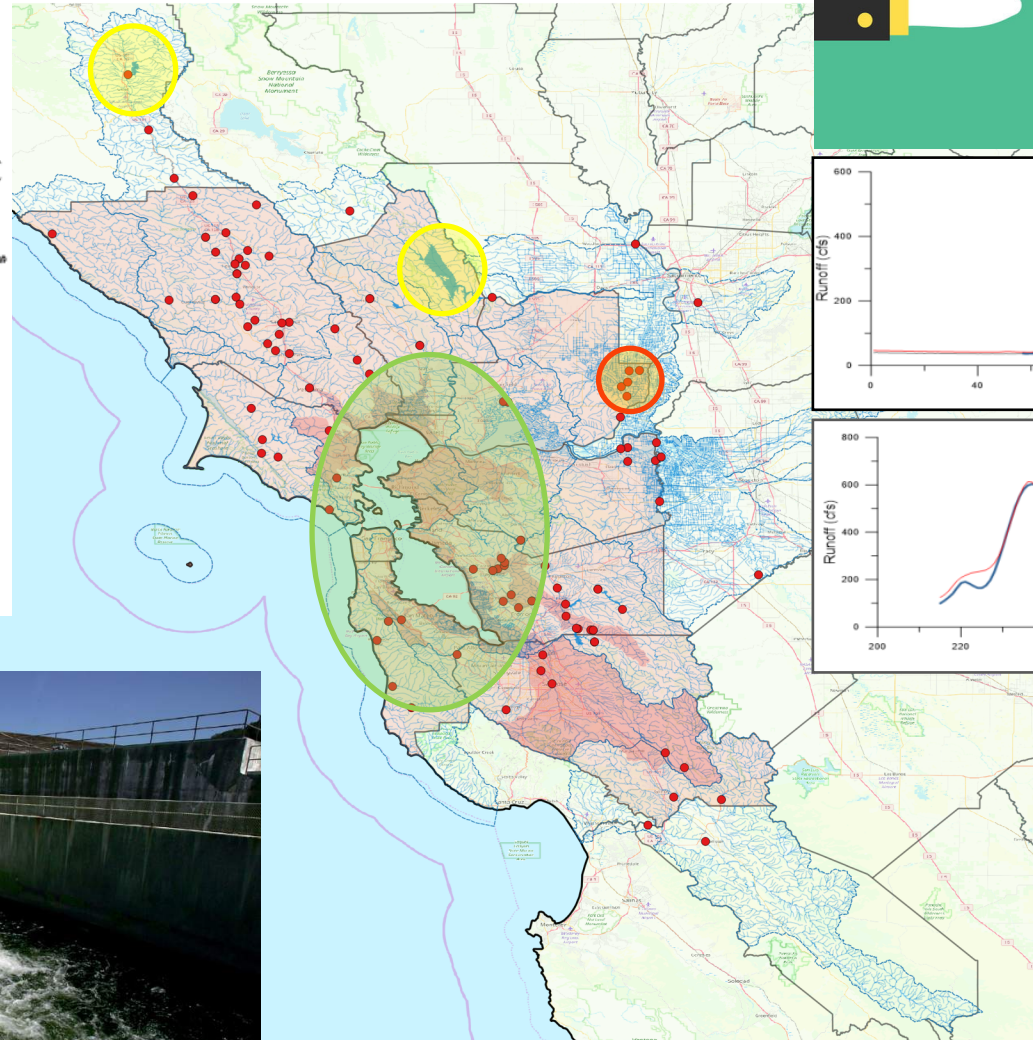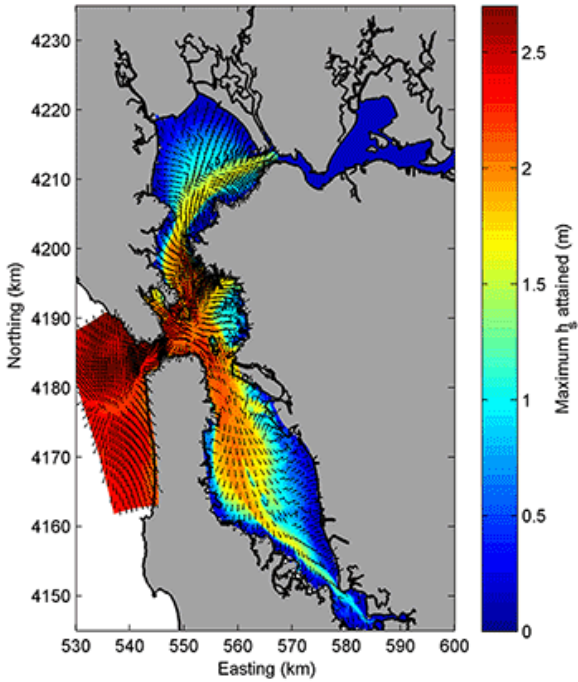
Validation
Hydrological Assessment Model (HAM)

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Hydrological Assessment Model (HAM)
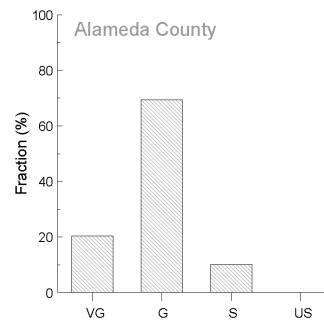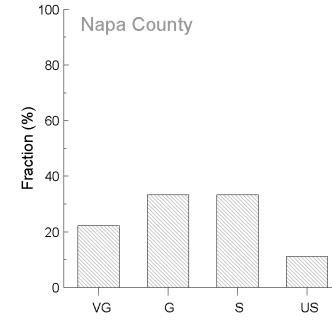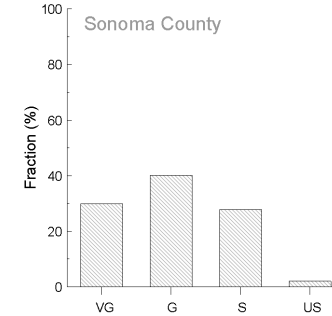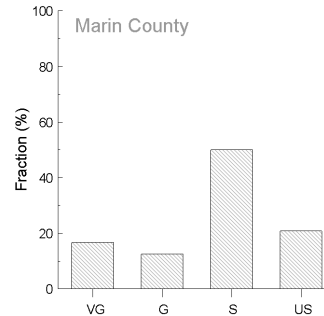
- USGS Austin C NR Cazadero, CA
- 2/1/2017 – 2/28/2017

- Rating results

Station_No	Event	Rating
11467200	1	Good
	2	Satisfactory
	3	Good
	4	Very Good
	5	Satisfactory
	6	Satisfactory
	7	Satisfactory
	8	Very Good
	9	Unsatisfactory
	10	Good
	11	Good
	12	Satisfactory
	13	Good
	14	Good
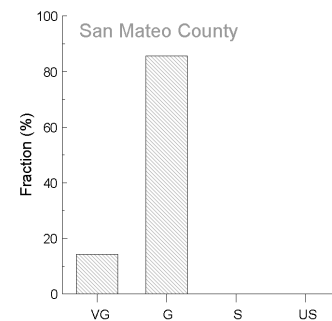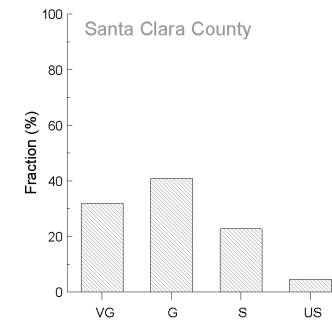
[Depending on counties]
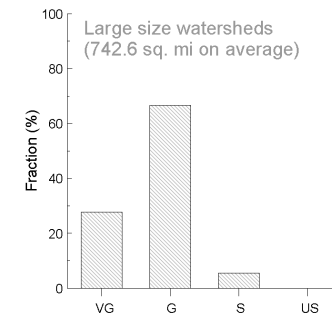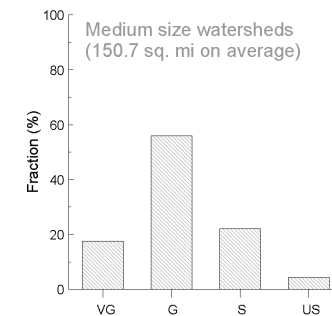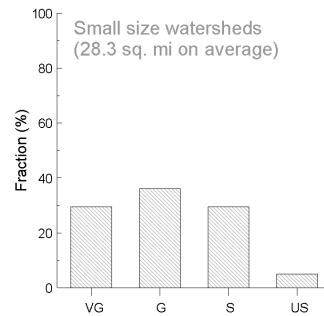
[Depending on drainage sizes]

Water Resources Management
Integrated Water Management Model (NWM-ResSim)

[Evaluation of natural and regulated flow in the upper Russian River basin]
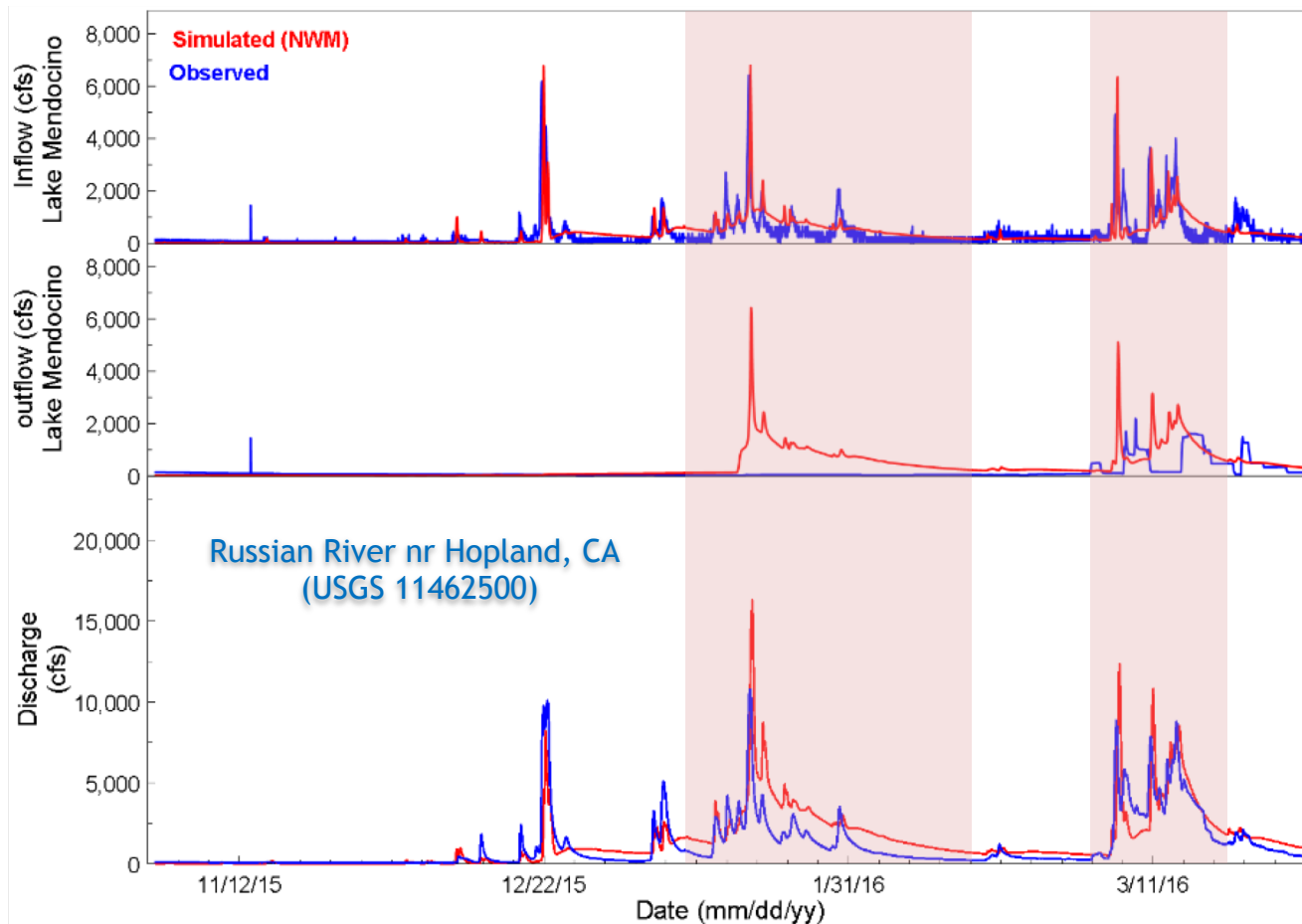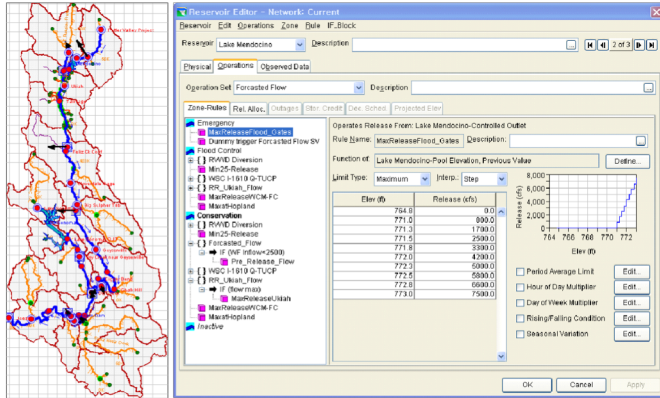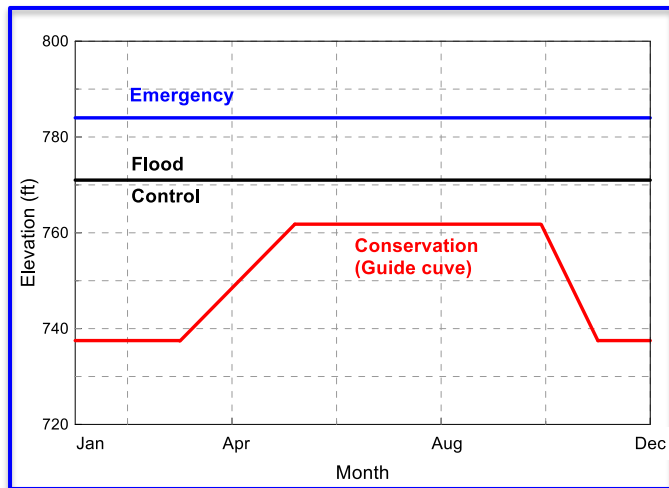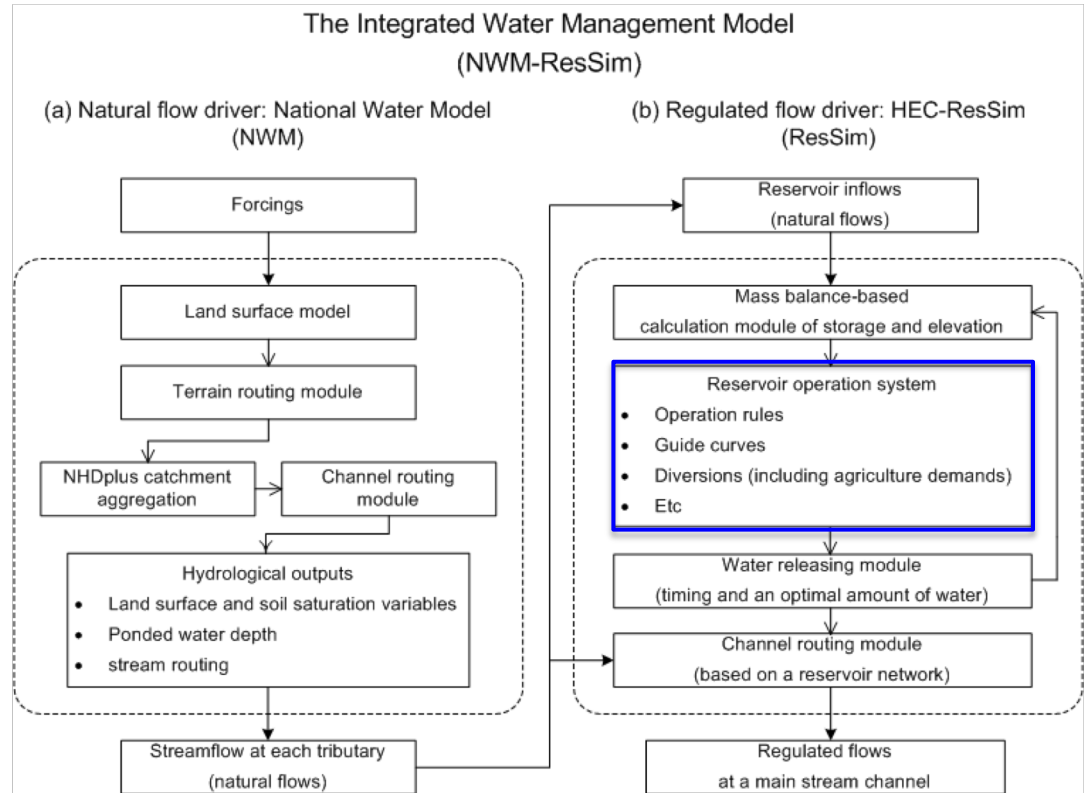
Water Resources Management
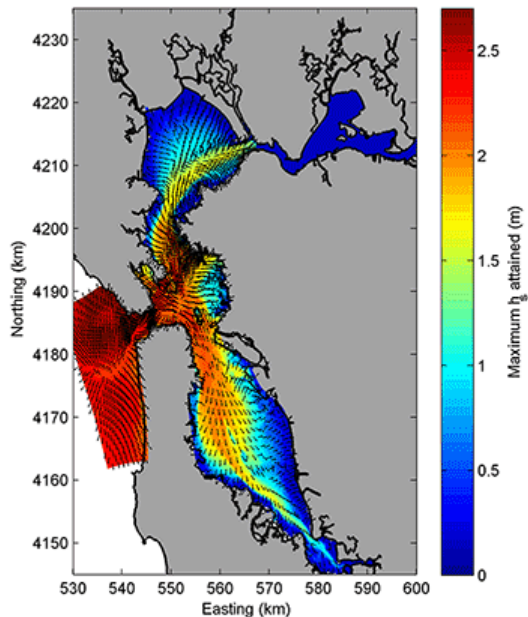## Integrated Water Management Model (NWM-ResSim)

[HEC-ResSim]

[Guide curves]
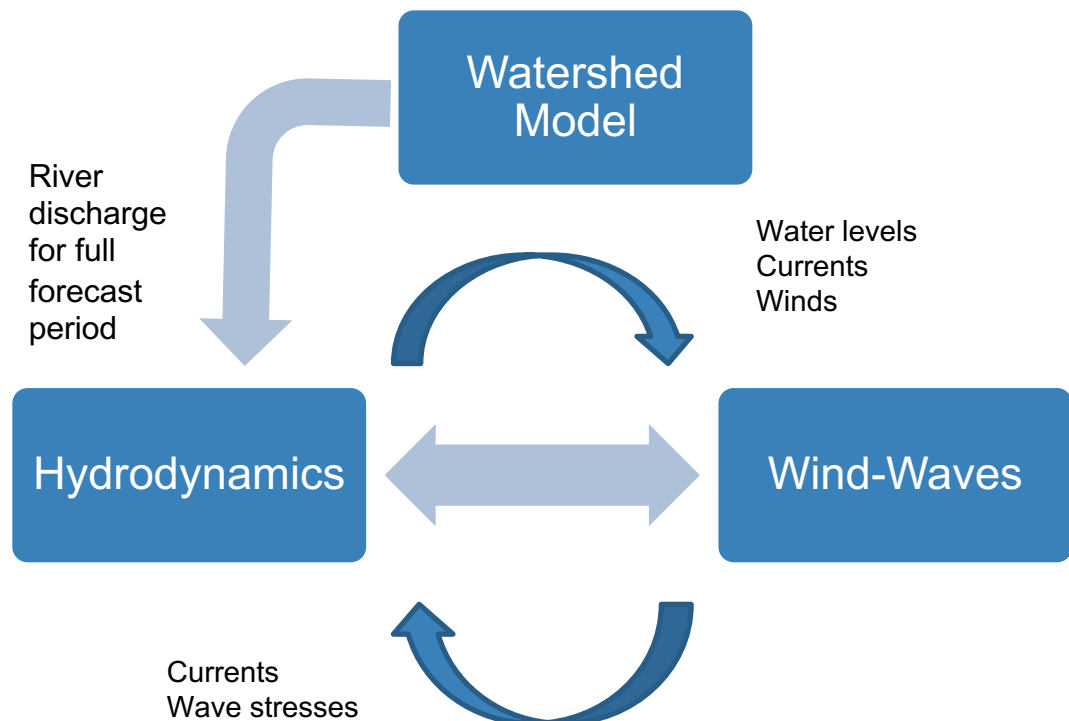

[Structure of the NWM-ResSim]

Flood Forecasting
Integrated Flood Forecasting Model (Hydro-CoSMoS)

Conditions at SanFrancisco

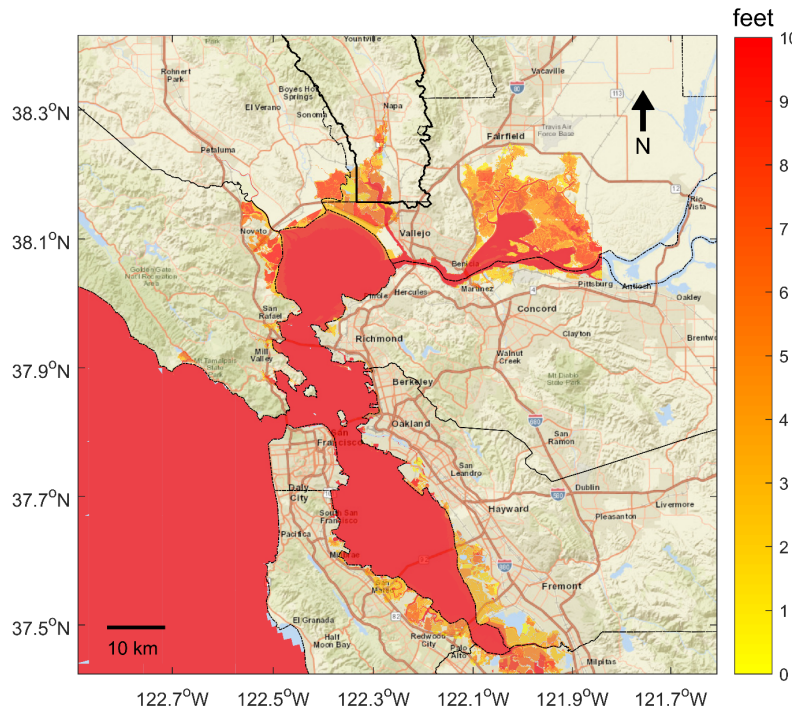Model enhancements for this operational implementation include:
- Use of a flexible-mesh model (Delft3D-FM) for increased resolution in nearshore areas and near infrastructure and flood-control features
- Use of the latest wind and pressure fields from NWS forecasts
- Operational connections to RDHM for indentSelected storm and precipitation events
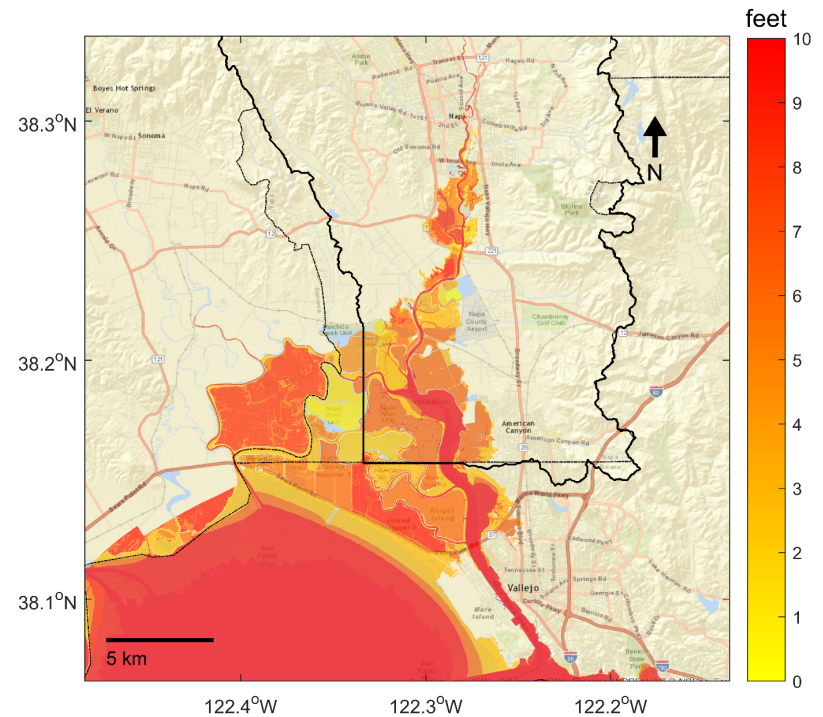- Rapid coastal flooding assessment using the Rapid Flood Spreading Method (RFSM)
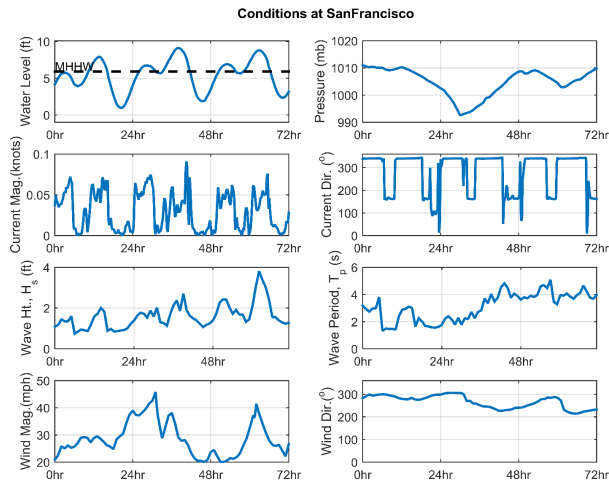
River discharge for full forecast period

Watershed Model

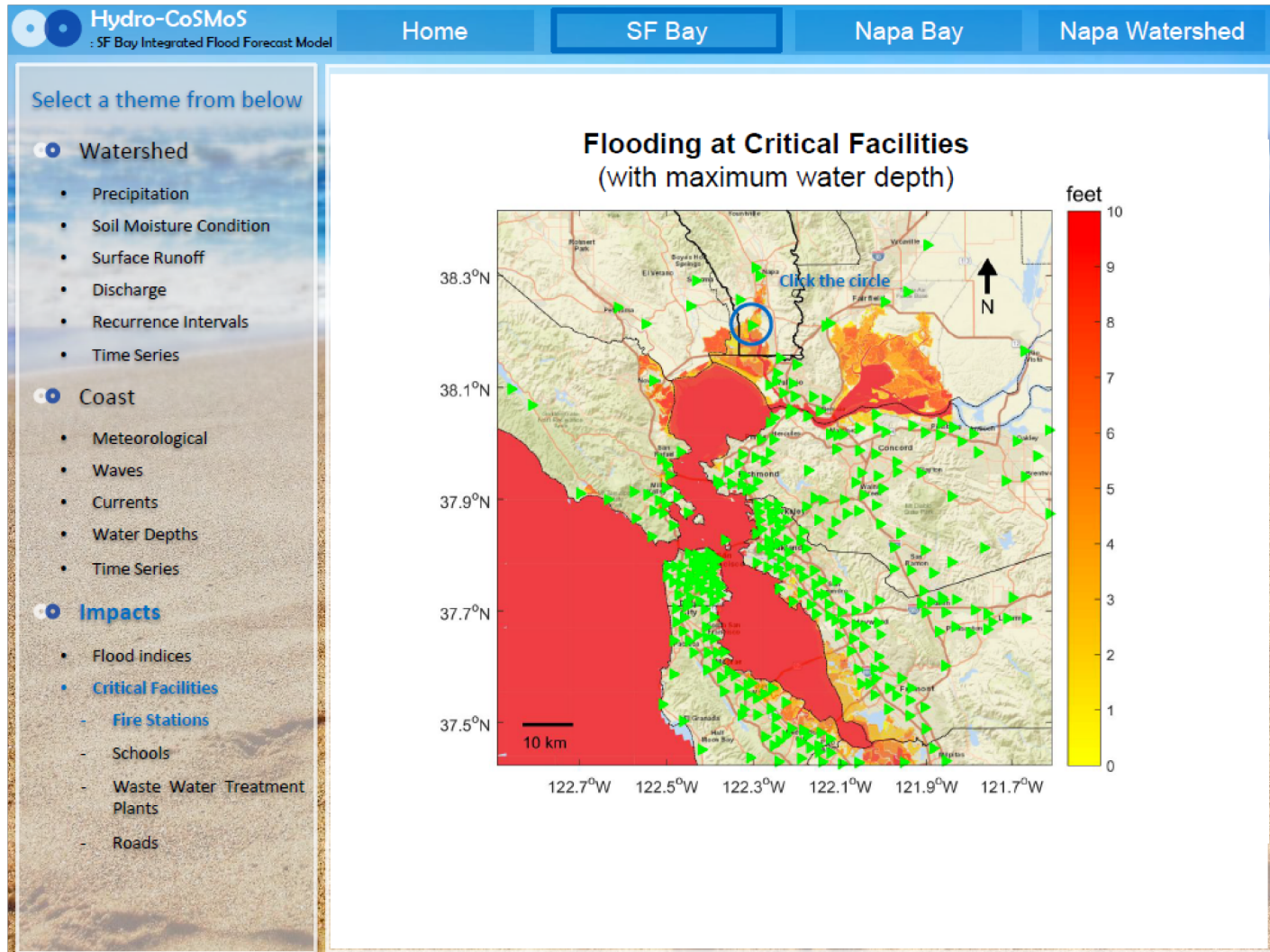Water levels
Currents
Winds
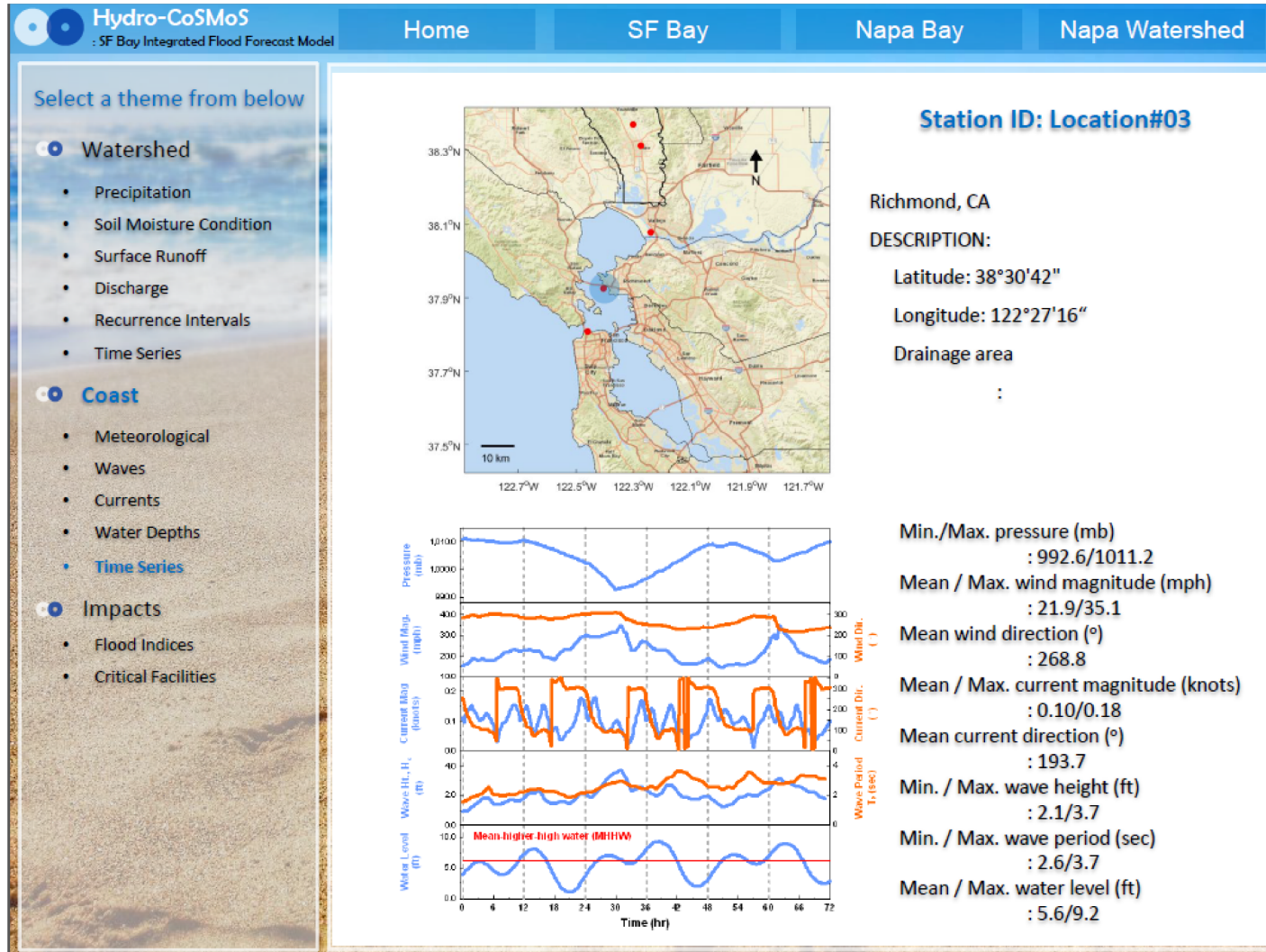
Hydrodynamics

Wind-Waves

Currents
Wave stresses

Coastal Flood Forecasting
Integrated Flood Forecasting Model (Hydro-CoSMoS)

Coastal Flood Forecasting
Integrated Flood Forecasting Model (Hydro-CoSMoS)

Coastal Flood Forecasting
Integrated Flood Forecasting Model (Hydro-CoSMoS)

Thanks!

Any questions?

You can find me at:

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