Observing System Overview

Kevin Werner

NWS Colorado Basin River Forecast Center

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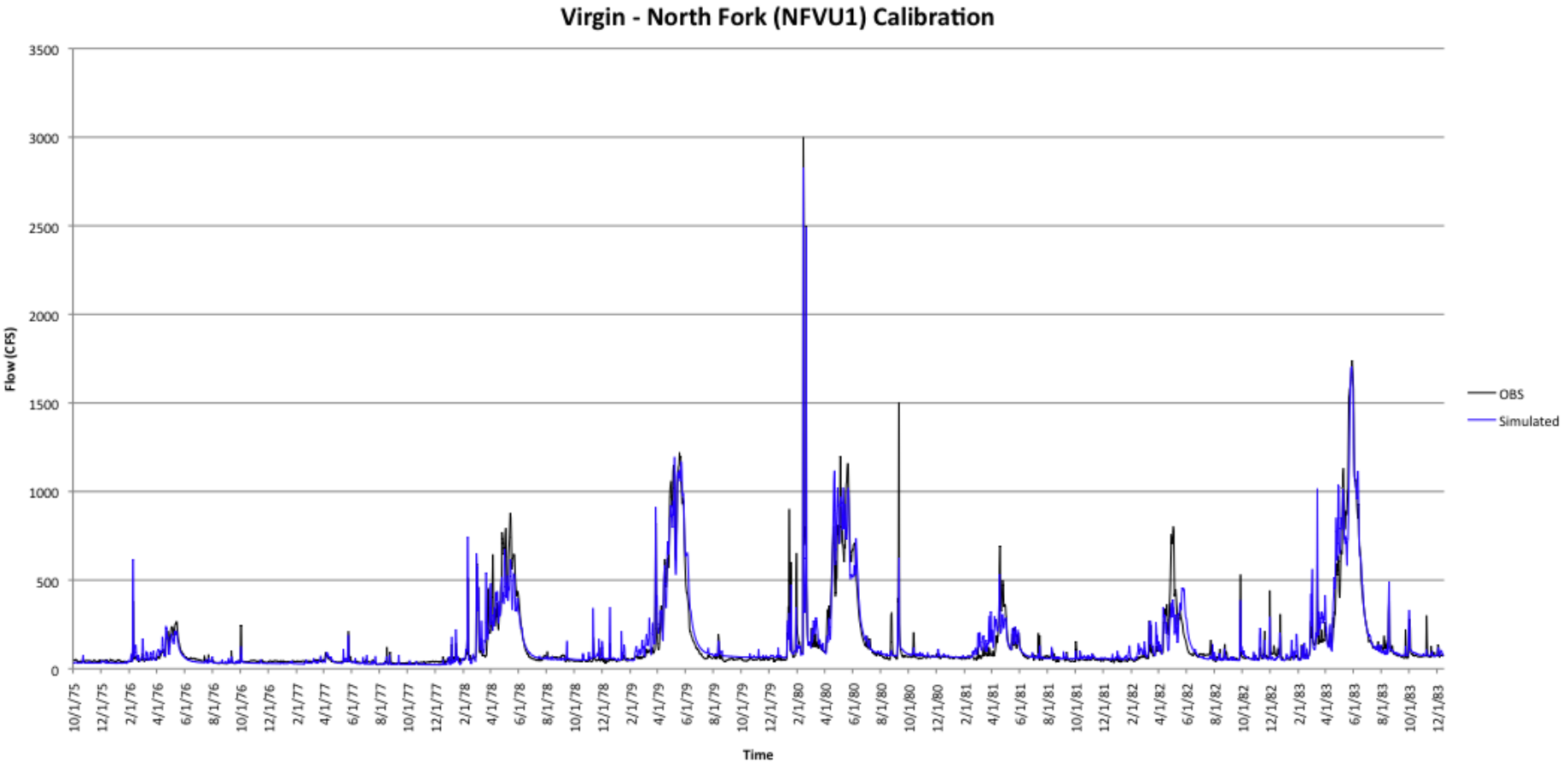
Importance of Data

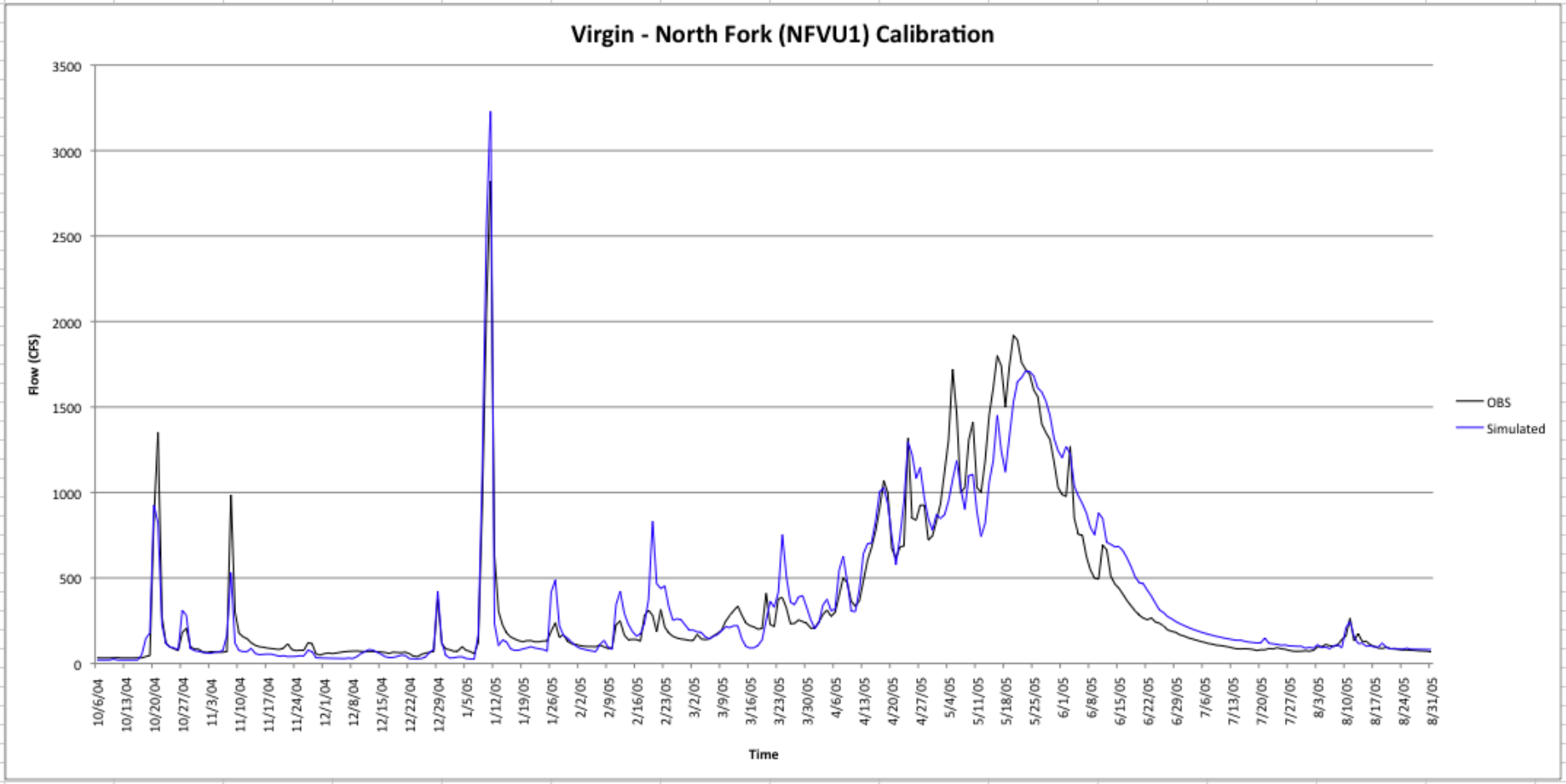
Good data is foundational for good forecasts.

Bad data ensures bad forecasts

Good calibration – NFVU1

Enough data, good record, many events…

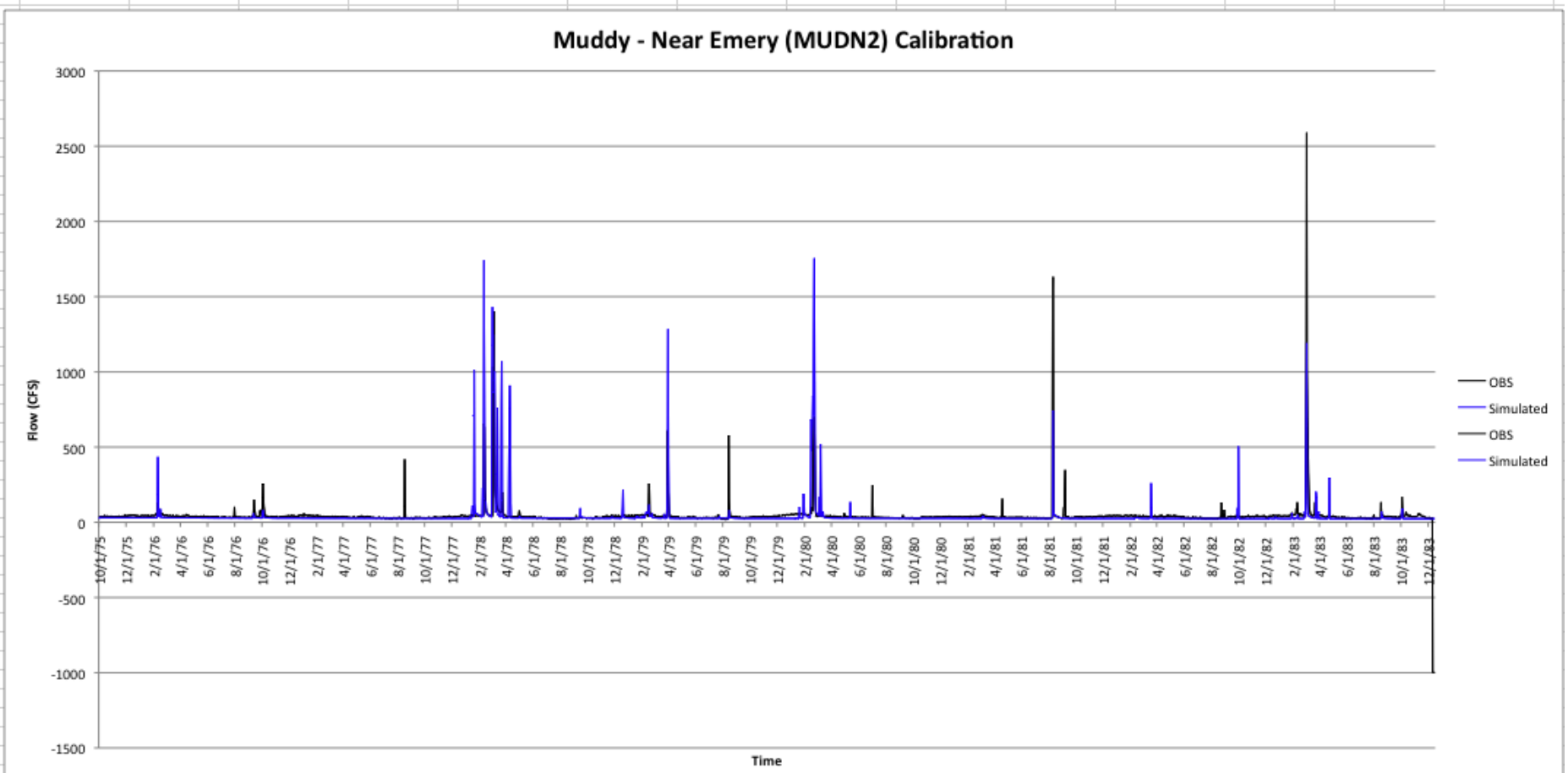


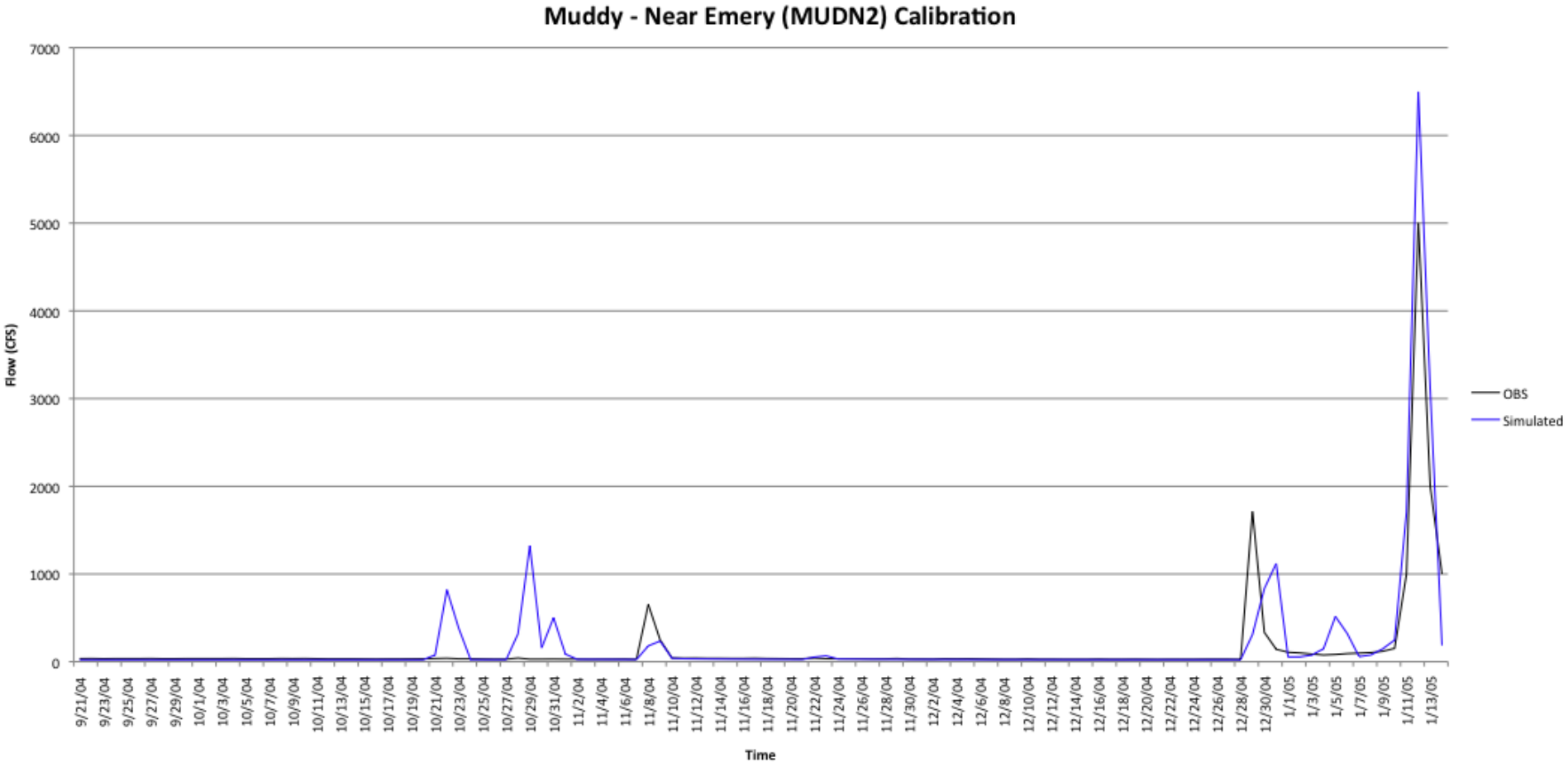


Mean Absolute Error (1979-1995): 30 cfs
Mean Flow (1979-1995): 120 cfs
Flood Flow (current rating): 5517 cfs

Poor calibration – MUDN2

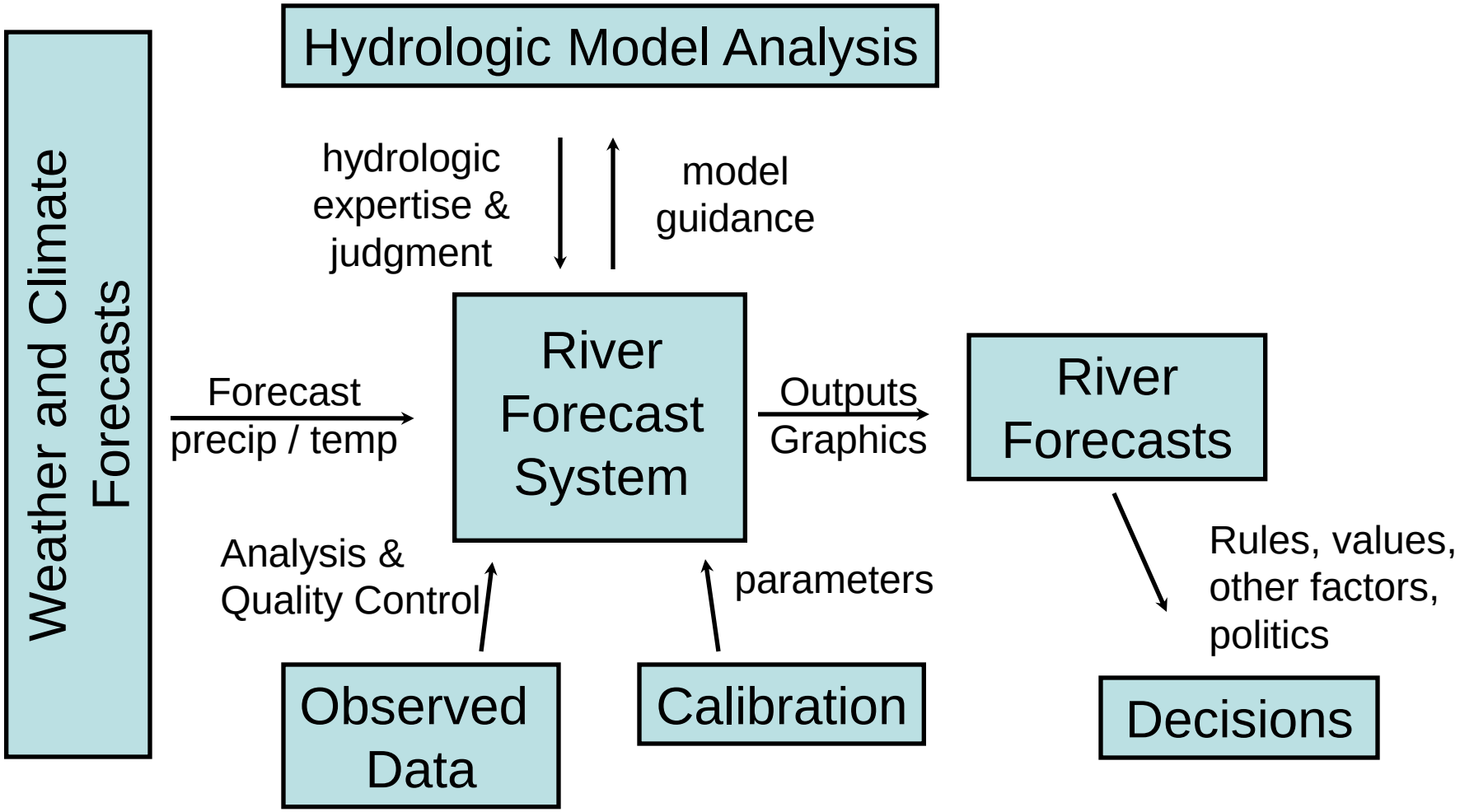
Almost no data, not much of a record, almost no events to calibrate to….



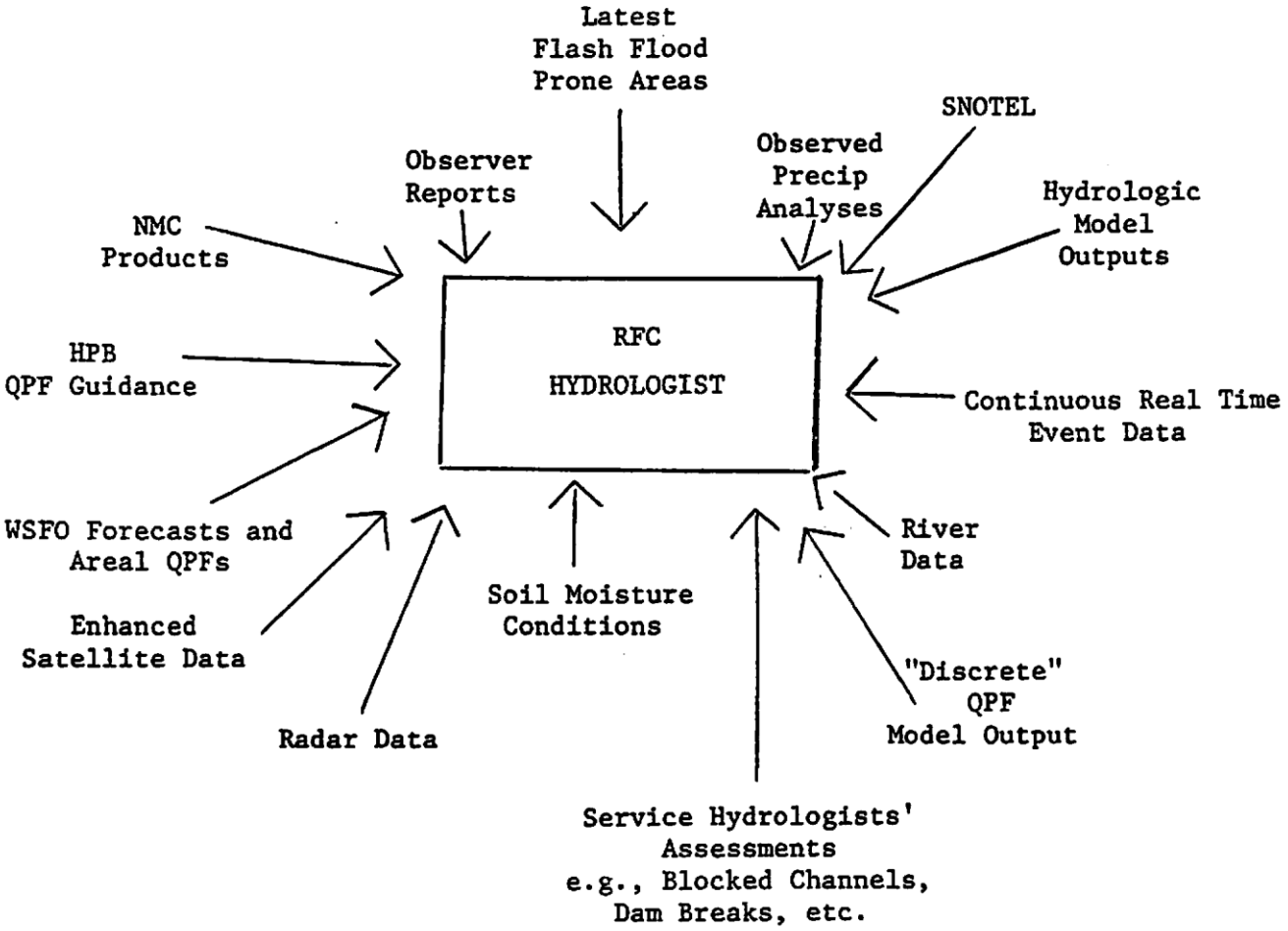


Mean Absolute Error (1979-1995): 56 cfs
Mean Flow (1979-1995): 3 cfs
Flood Flow (current rating): 1197 cfs

Forecast Process



DATA AVAILABLE TO THE RFC HYDROLOGIST



1983 NWS document

CBRFC Data In

Daily data used in CBRFC daily forecasting:

- ~260 precipitation sites
- ~330 temperature sites
- ~875 river flow, reservoir, and diversions
- ~95 reservoir storage

CBRFC Data In circa 1983

Presently, daily precipitation observations are received from about 35 sites (many of these are unofficial "ham" radio volunteers), and 6 stations report as frequently as 6-hourly.

As a result of the NWS test program to use conceptual models for river forecasting, a new, improved NWSRFS program will be implemented in the spring of 1984 to the extent that real-time data can be provided. The CBRFC data requirements for this program to become fully operational in the Colorado River basin are attached to this document.

Key observing systems

NRCS SNOTEL (Randy Julander)

USGS Stream Gauging (Pat Lambert)

NWS COOP, Radar, etc (Larry Dunn)