

MODEL 5073NS-RFO River Forecast Software

General Description

A critical aspect of ALERT systems is providing timely warnings of impending flood events. Real-time reporting of data helps to make this possible. But often more lead time is required in the prediction of flooding. This can only be accomplished by forecasting the event before it happens. By using antecedent soil moisture conditions and real-time rainfall reporting, the NovaStar River Forecast Software provides this service.

The first element of the River Forecast Software forecasts runoff from rainfall based on soil moisture conditions. The runoff forecast software uses the Sacramento Soil Moisture Accounting Model. This model keeps continuous accounting of the soil moisture throughout the year so the model is always ready to forecast river flows. River systems with single forecast points fed by headwaters can use this software alone for river forecasting.

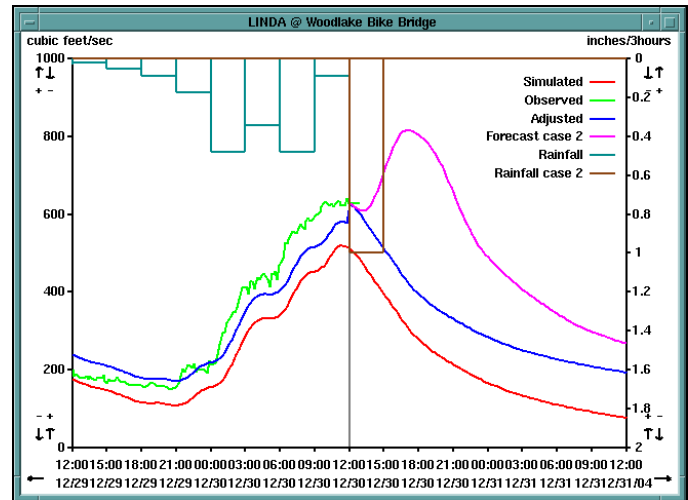
River systems that combine several forecast points on one or more rivers require river routing software. This software uses multi-layered Muskingham routing to move forecast flows from one river point to another.

River systems that include a reservoir will require the Channel Reservoir Routing software. This software includes all the river routing logic plus reservoir management features. Reservoir management includes spillway, gate, power generation releases with inflow and storage computations.

The NovaStar River Forecast Software must be calibrated by a qualified hydrologist before it can be used effectively. Once calibrated, the software runs unattended providing continuous forecasts which are stored in the NovaStar database. Alarm monitoring can be used to alert personnel when forecast river flows will exceed critical levels. Rainfall forecasts can be preprogrammed to provide multiple "what if" scenarios of river forecasts.

Features

- Forecast output stored in NovaStar database
- Set alarms on forecast values
- Multiple rainfall forecasts with definable start times
- Unlimited watersheds, river segments, and reservoirs
- Gated reservoir operations
- Reservoir rule curves
- Automatic data preparation and forecast updating
- NWS Soil Moisture Accounting Model



Model 5073NS-RFO River Forecast Plots

Ordering Information

- 5073NS-RF NovaStar Runoff Forecast Option*
- 5073NS-RR..... NovaStar River Routing**
- 5073NS-CR..... NovaStar Channel/Reservoir Routing**
- 5073CAL Forecast Point Calibration for
5073NS-RF/RR/CR

* Requires calibration by a qualified Hydrologist.

** Requires calibration and model 5073NS-RF