

RUN #4

STAD-DATE: sta22222222_1969_0214
DATA DIR: d:\jvlabel\SWAP\UNIT\precip_loss_optimization\toweb\BOTHEXAMPLE
AREA [mi^2] PRECIPITATION 1.94

TOTAL RAIN VOLUME [inches] 1.2333
EXCESS RAIN VOLUME [inches] 0.71038
PERCENT RAIN VOLUME LOSS 42.4014

DISCHARGE

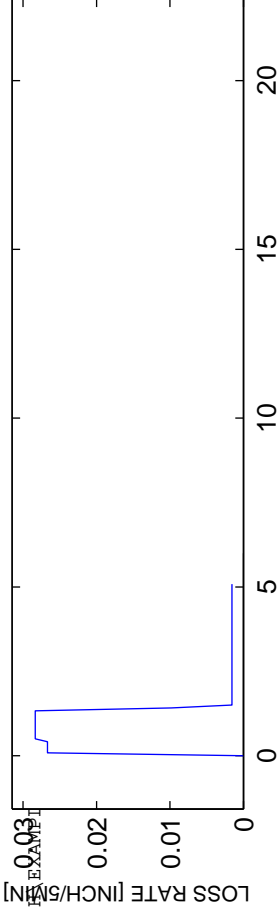
MEAN OBS Q [CFS] 37.3791
MEAN SIM Q [CFS] 36.8295
RMS Q RESIDUALS [CFS] 47.5386
Q RELATIVE BIAS -0.014703
Q NASH-SUTCLIFFE EFFICIENCY -0.51394
Q SIM vs OBS R² 0.57589
Q SIM vs OBS SLOPE 0.42096
Q SIM vs OBS INTERCEPT 21.8753

VOLUME

MEAN OBS V [CFS] 0.42808
MEAN SIM V [CFS] 0.50276
RMS V RESIDUALS [CFS] 0.11806
V RELATIVE BIAS 0.17445
V NASH-SUTCLIFFE EFFICIENCY 0.82258
V SIM vs OBS R² 0.90286
V SIM vs OBS SLOPE 0.90788
V SIM vs OBS INTERCEPT -0.028363

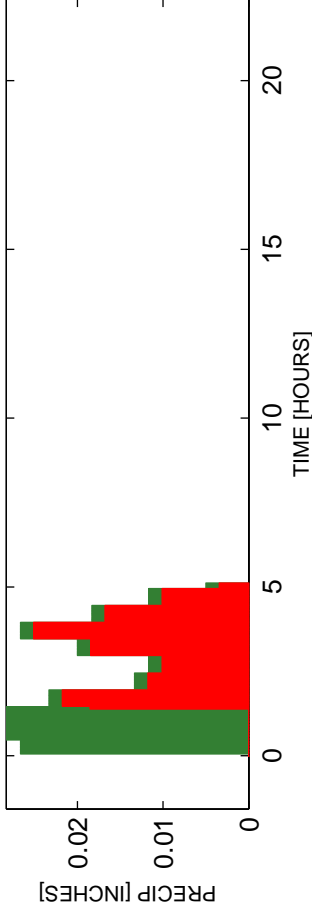
OPTIMIZATION RESULTS -----
SIM/OBS TOTAL VOLUME RATIO 0.98743
MINIMIZED OBJECTIVE FUNCTION VALUE 653115.8831
C_{opt}: 0.45327 0.0015485

PRECIP LOSS FUNCTION: $P_{xs}(t) = \text{init.abs. then const.loss}$

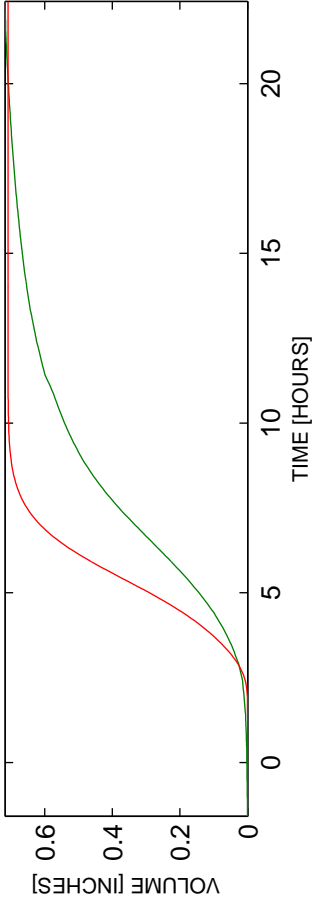


$$\Phi = \sum (Q_{\text{true}} - Q_{\text{est}})^2 \text{ (grid)}$$

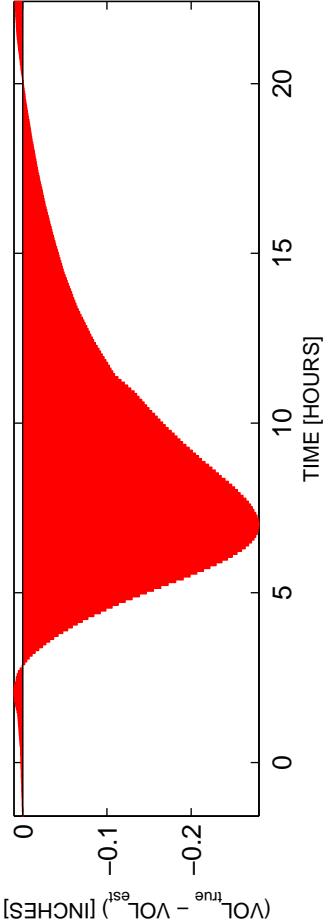
OBS AND MODELED RAINFALL: RAW DATA USED



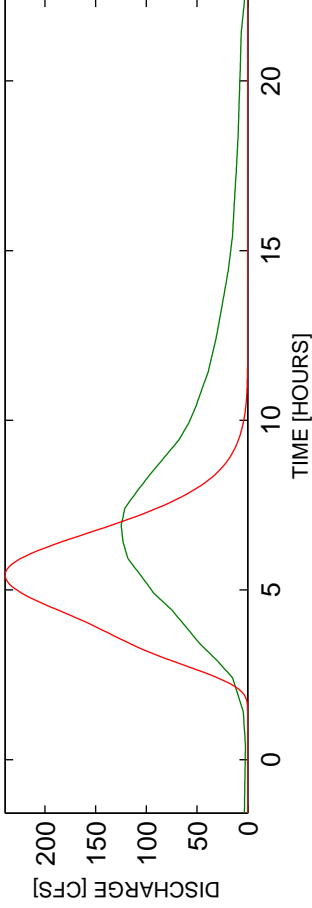
OBS AND ESTIMATED ACCUMULATED VOLUME



ACCUMULATED VOLUME RESIDUALS



OBS AND ESTIMATED DISCHARGES



DISCHARGE RESIDUALS

