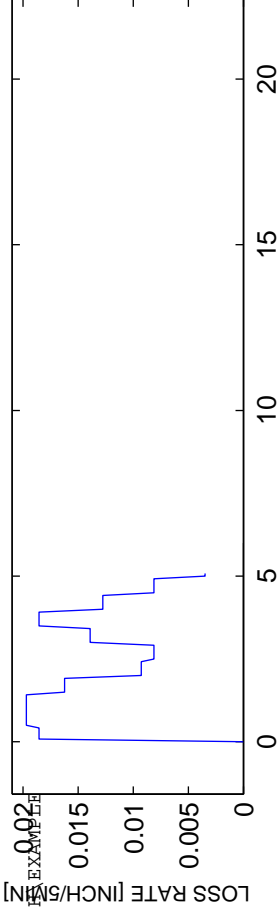


RUN #4

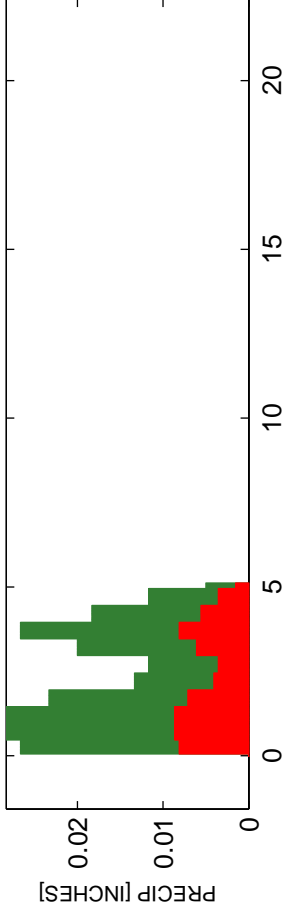
STAD-DATE: sta22222222\_1969\_0214  
DATA DIR: d:\jvlabel\SWAP\UNIT\precip\_loss\_optimization\toweb\BOTHEXAMPLES  
AREA [mi^2] ..... PRECIPITATION ..... 1.94  
-----  
TOTAL RAIN VOLUME [inches] ..... 1.2333  
EXCESS RAIN VOLUME [inches] ..... 0.3756  
PERCENT RAIN VOLUME LOSS ..... 69.5456  
-----  
DISCHARGE  
-----  
MEAN OBS Q [CFS] ..... 37.3791  
MEAN SIM Q [CFS] ..... 19.473  
RMS Q RESIDUALS [CFS] ..... 38.5228  
Q RELATIVE BIAS ..... -0.47904  
Q NASH-SUTCLIFFE EFFICIENCY ..... 0.0058487  
Q SIM vs OBS R^2 ..... 0.29997  
Q SIM vs OBS SLOPE ..... 0.66039  
Q SIM vs OBS INTERCEPT ..... 24.5192  
-----  
VOLUME  
-----  
MEAN OBS V [CFS] ..... 0.42808  
MEAN SIM V [CFS] ..... 0.27949  
RMS V RESIDUALS [CFS] ..... 0.21712  
V RELATIVE BIAS ..... -0.34711  
V NASH-SUTCLIFFE EFFICIENCY ..... 0.39997  
V SIM vs OBS R^2 ..... 0.84761  
V SIM vs OBS SLOPE ..... 1.7965  
V SIM vs OBS INTERCEPT ..... -0.074023  
-----  
OPTIMIZATION RESULTS -----  
SIM/OBS TOTAL VOLUME RATIO ..... 0.52209  
MINIMIZED OBJECTIVE FUNCTION VALUE ..... 428878.3311  
C<sub>opt</sub>: 0.30454

PRECIP LOSS FUNCTION:  $P_{xs}(t) = c_1 P_{tot}(t) [0 < c_1 \leq 1]$

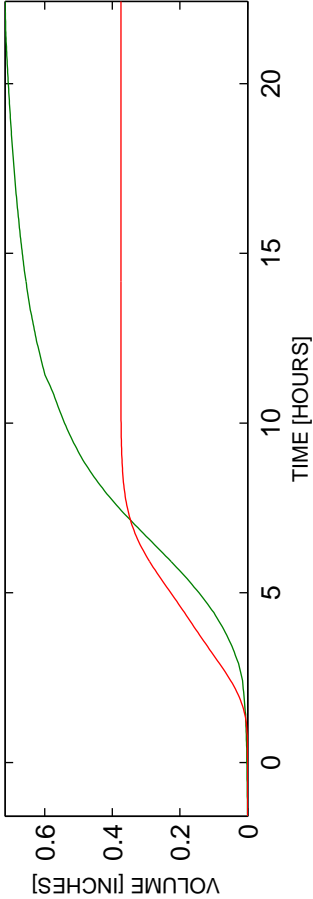


$$\Phi = \Sigma(Q_{true} - Q_{est})^2 \text{ (fbnd)}$$

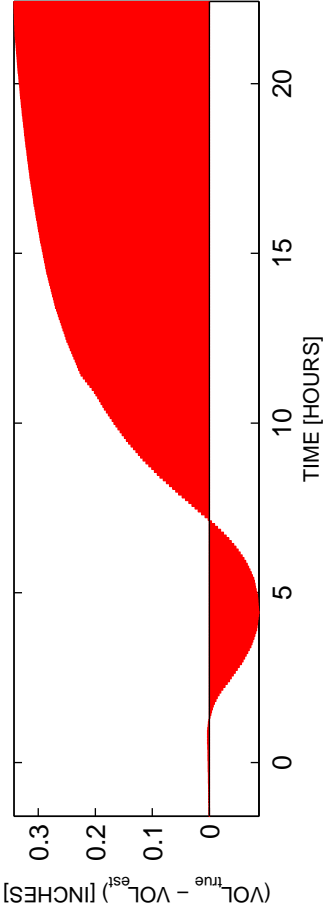
OBS AND MODELED RAINFALL: RAW DATA USED



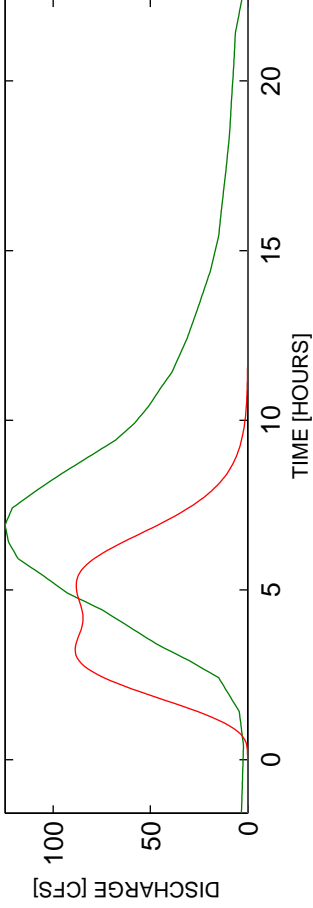
OBS AND ESTIMATED ACCUMULATED VOLUME



ACCUMULATED VOLUME RESIDUALS



OBS AND ESTIMATED DISCHARGES



DISCHARGE RESIDUALS

