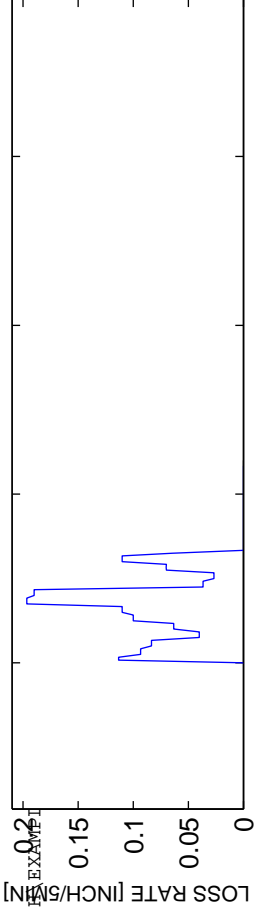


RUN #3

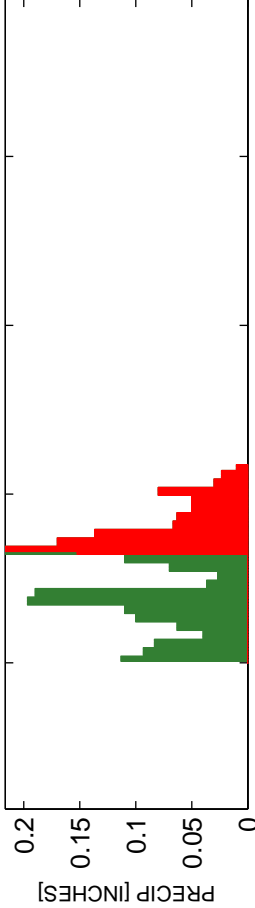
STAD-DATE: sta22222222\_1968\_0709  
DATA DIR: d:\jvlabel\SWAP\UNIT\precip\_loss\_optimization\towEB\BOTHEXAMP1  
AREA [mi²] ..... PRECIPITATION ..... 1.94  
-----  
TOTAL RAIN VOLUME [inches] ..... 6.2667  
EXCESS RAIN VOLUME [inches] ..... 2.6158  
PERCENT RAIN VOLUME LOSS ..... 58.2581  
-----  
DISCHARGE  
-----  
MEAN OBS Q [CFS] ..... 170.2986  
MEAN SIM Q [CFS] ..... 135.6162  
RMS Q RESIDUALS [CFS] ..... 104.5663  
Q RELATIVE BIAS ..... -0.20366  
Q NASH-SUTCLIFFE EFFICIENCY ..... 0.84428  
Q SIM vs OBS R² ..... 0.88411  
Q SIM vs OBS SLOPE ..... 0.86189  
Q SIM vs OBS INTERCEPT ..... 53.4127  
-----  
VOLUME  
-----  
MEAN OBS V [CFS] ..... 1.7867  
MEAN SIM V [CFS] ..... 1.4536  
RMS V RESIDUALS [CFS] ..... 0.42578  
V RELATIVE BIAS ..... -0.18644  
V NASH-SUTCLIFFE EFFICIENCY ..... 0.91401  
V SIM vs OBS R² ..... 0.99158  
V SIM vs OBS SLOPE ..... 1.1885  
V SIM vs OBS INTERCEPT ..... 0.059183  
-----  
OPTIMIZATION RESULTS -----  
SIM/OBS TOTAL VOLUME RATIO ..... 0.7959  
MINIMIZED OBJECTIVE FUNCTION VALUE ..... 3159955.8853  
C<sub>opt</sub>: 3.6508

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

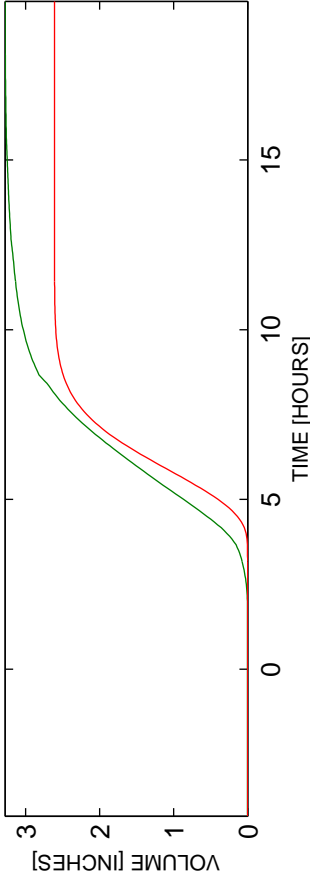


$$\Phi = \sum (Q_{true} - Q_{est})^2 \text{ (fbnd)}$$

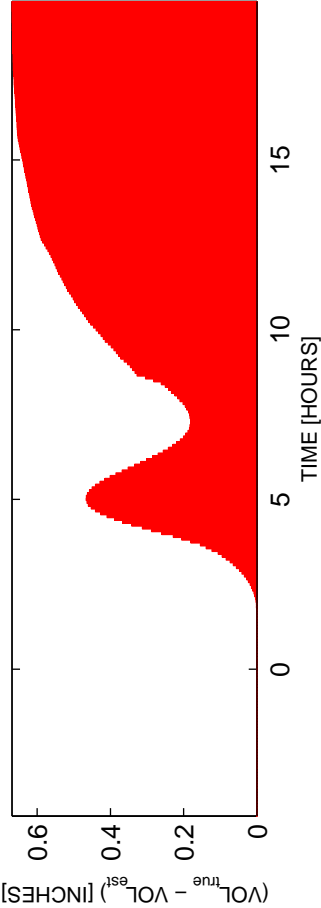
OBS AND MODELED RAINFALL: RAW DATA USED



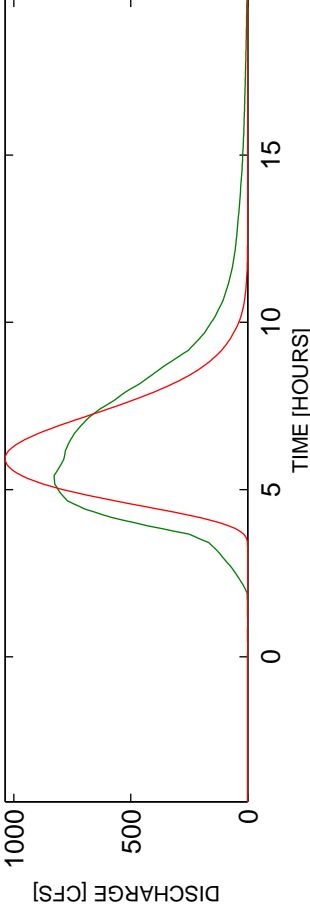
OBS AND ESTIMATED ACCUMULATED VOLUME



ACCUMULATED VOLUME RESIDUALS



OBS AND ESTIMATED DISCHARGES



DISCHARGE RESIDUALS

