Flow through Parshall Flume

1 pump @ 7,500,000 MGD rate

7,500,000 / 1440 = 5139 GPM

2 pumps @ 16,500,000 MGD rate

16,500,000 / 1440 = 11,458 GPM

$A = (9.167 \times 2.5) =$

$A = 22.92\ ft^2$

1 PUMP

$Q = (5139\ GPM)(2.228 \times 10^{-3}) = 11.45\ ft^3/sec$

$V = (11.45\ ft^3/sec) \div (22.92\ ft^2) = 0.5\ ft/sec$

2 PUMPS

$Q = (11{,}458\ GPM)(2.228 \times 10^{-3}) = 25.53\ ft^3/sec$

$(25.53\ ft^3/sec) \div (22.92\ ft^2) = 1.1\ ft/sec$