

1. Develop a 6-hour, 100 year design storm hyetograph for Travis County using the SCS 6 hour design storm ordinates.
2. A watershed has a curve number of 65 and is 42% impervious. Determine the amount of runoff (inches) from a storm of 4.21 inches precipitation.
3. A watershed has an area of 0.78 mile² and a lag time of 35 min. Use the SCS Triangular Unit Hydrograph method to determine the runoff hydrograph from a storm with 0.75 inches of excess precipitation occurring in 10 minutes. Verify that the resulting runoff hydrograph contains 0.75 inches of direct runoff.
4. What is the probability that a 100 year flood will occur at least once in the next 30 years?