Comments on homework 1

General: Be sure to explain your work in sufficient detail so that I can check your understanding and find any errors.

1. In this problem the precipitation onto the reservoir and the evaporation from the reservoir cancelled each other; nevertheless, state this cancellation explicitly so that I know you understand the mass balance. . . . Some groups forgot to account for the areas in the statement of conservation of water volume. (Why can we account for changes in volume rather than mass?)

2. Part e referred to the risk, not the exceedance probability.

3. Show at least some explanation of how you computed the CDF and discharges corresponding to certain return periods; without some explanation, I cannot find errors. Also, I recommend using Excel or some other program to plot graphs quantitatively (as opposed to sketches). The CDF could be checked at $Q = 0$ cfs and $Q = 200$ cfs, as well as other points.

4. Some groups fit a curve to the empirical data to compute the exceedance probability; a better approach here is to use the measurements directly. The answer to part b depended on whether you use the daily mean or daily maximum discharges. I found 128 and 133 days, respectively.