Storage forecasts and Probability of Exceedance (POE) plots for Lake Limestone
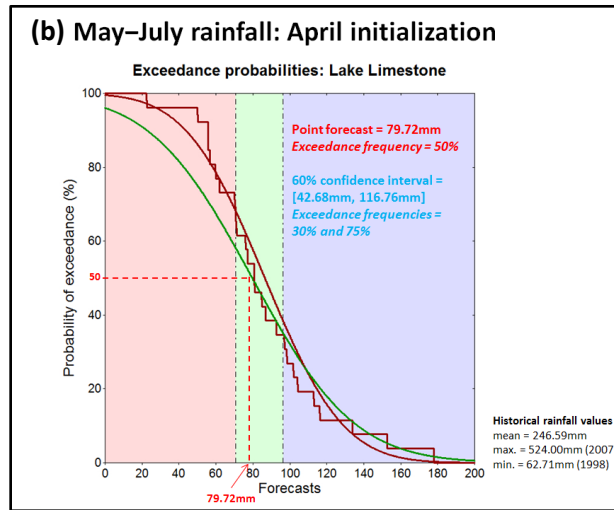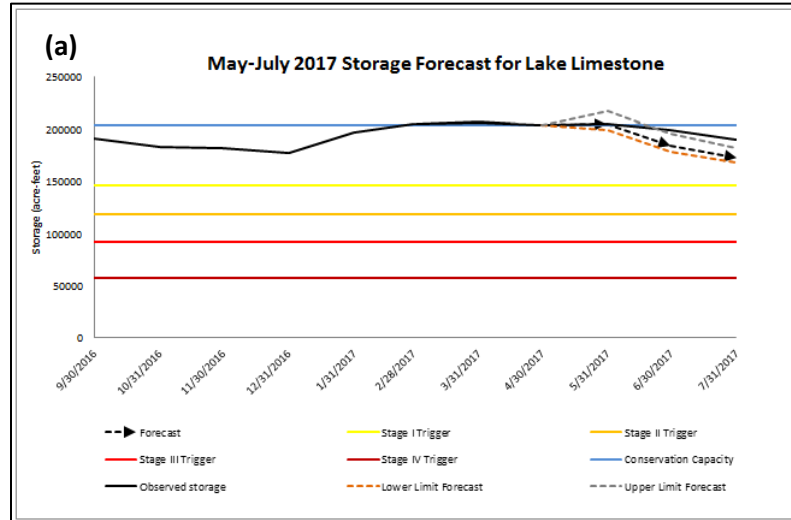

Lake Limestone forecast caption: (a) May–July 2017 storage forecasts for Lake Limestone. Thick dashed black arrows in (a) indicate the storage forecast generated using the point rainfall forecast. Thick black line indicates observed storage. Thin dashed grey indicates the upper limit of the storage forecast generated using the upper limit of the 60% confidence interval. Thin dashed brown line indicates the lower limit of the storage forecast generated using the lower limit of the 60% confidence interval. Solid horizontal blue line indicates reservoir conservation capacity. Solid horizontal yellow, light brown, red, and dark brown lines are Stage I, Stage II, Stage III, and Stage IV drought contingency trigger levels, respectively, for Lake Limestone as listed in the Brazos River Authority's Drought Contingency Plan available at: https://www.brazos.org/Portals/0/generalPdf/DCP_10-2012.pdf; and (b) Exceedance frequency curve for May–July rainfall over Lake Limestone. The stepped brown curve shows exceedance probabilities associated with climatological rainfall values, the smooth brown curve shows a log-normal fit to the climatological rainfall exceedances, and the green smooth curve shows a log-normal fit to the forecast rainfall exceedances. The red dashed line indicates the point forecast of 79.72mm and its associated exceedance probability of 50%. The point forecast falls within the green shaded area of the plot indicating that the forecast rainfall is likely to be near the climatological average for that location. [For more details see: MJJ2017 Brazos storage forecasts]