



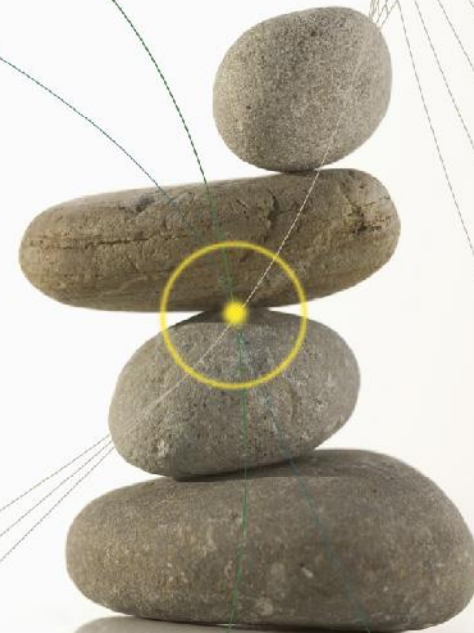
RECON

*A Company of Specialists*

*Drought Probability Analysis  
Discussion*

Paul Fromer

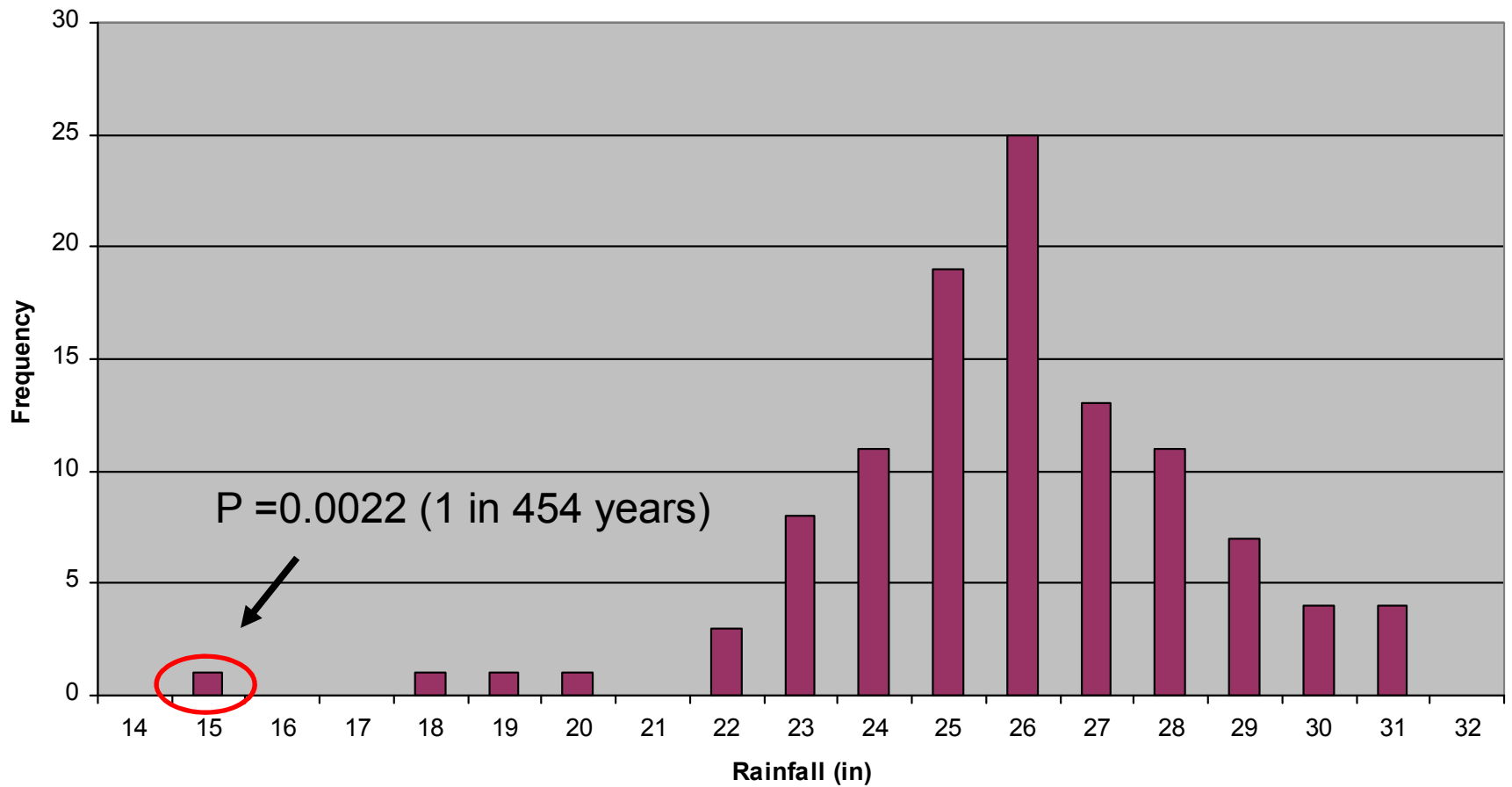
January 28, 2011



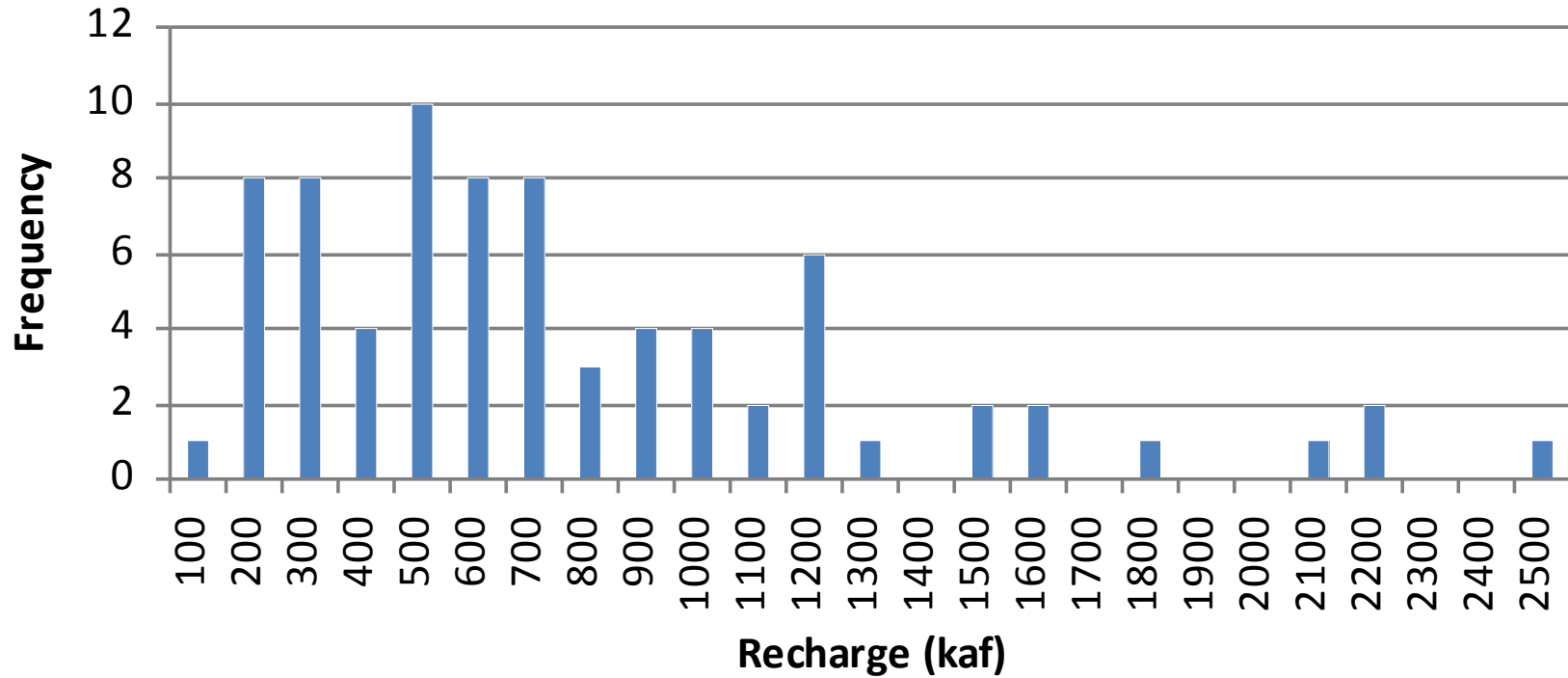
- **Probability of Recurrence of DOR**
  - Historic Data (tree ring data)
  - Statistical Analysis
  - Probabalistic Analysis

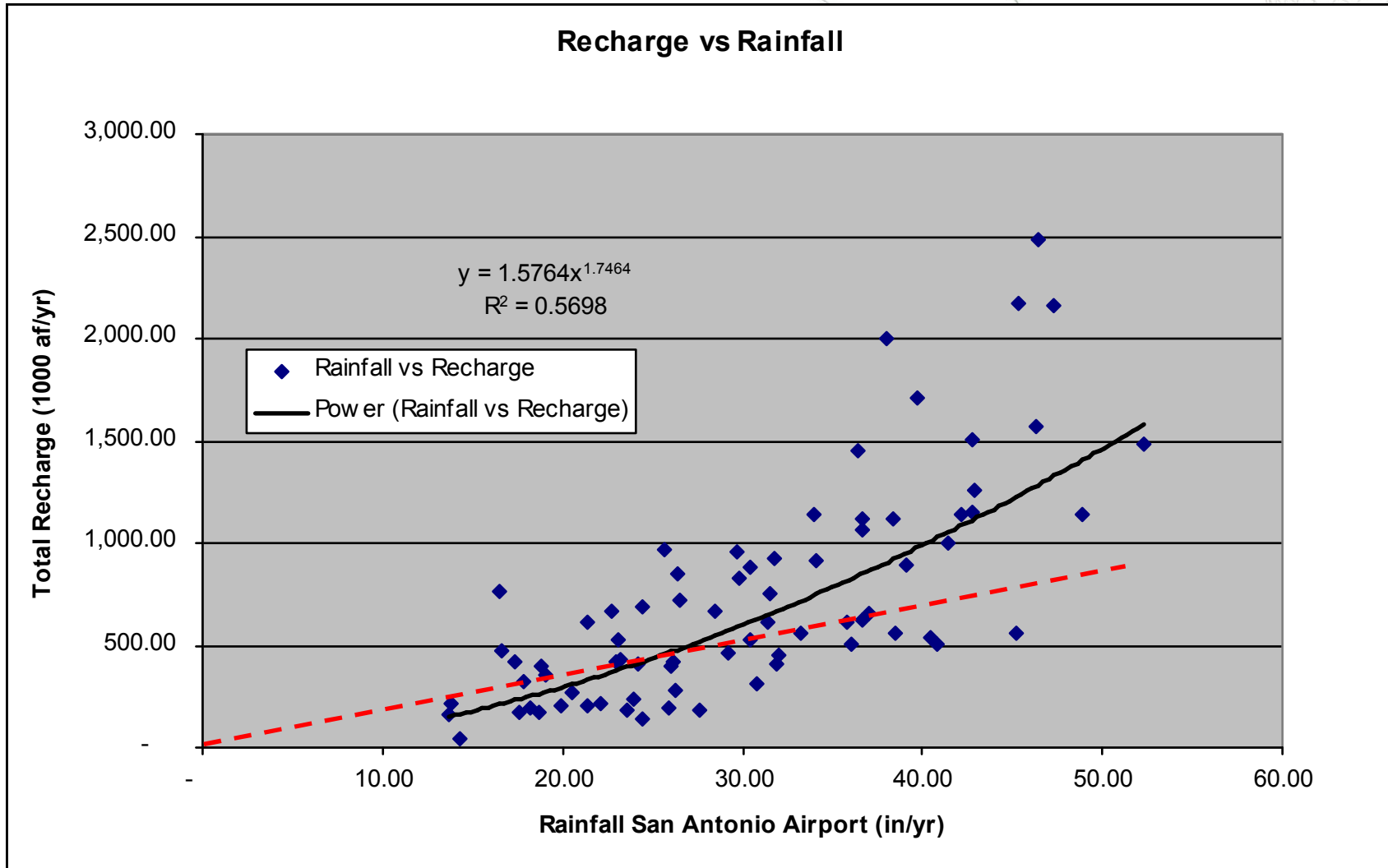
- Historic Data (tree ring data from Cleaveland) on the DOR 1500 to present
  - 4<sup>th</sup> driest 5 year period
  - 2<sup>nd</sup> driest 10 year period
  - 4<sup>th</sup> driest 20 year period

## Seven-Year Moving Average

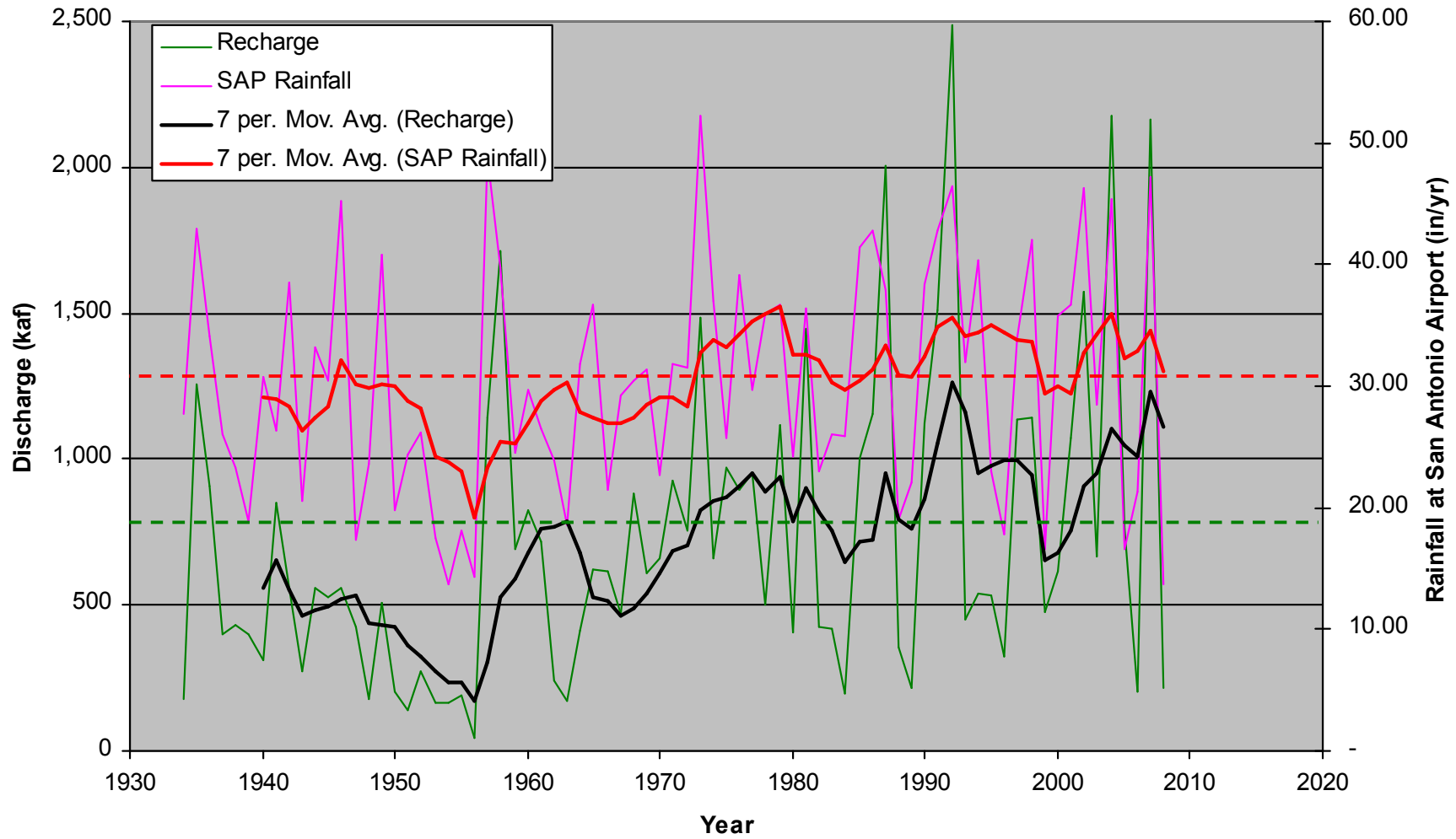


### Recharge Distribution

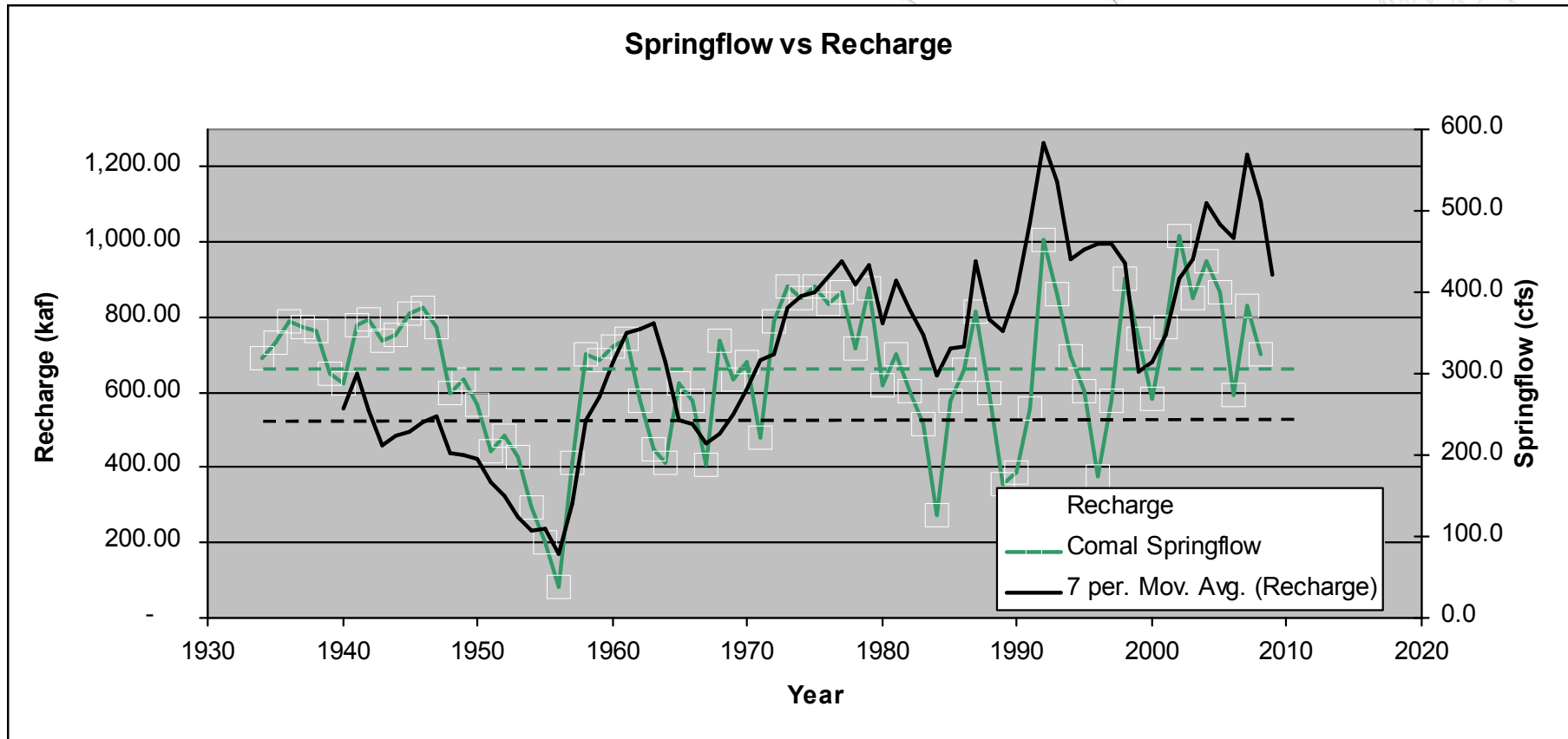




## Discharge vs Rainfall





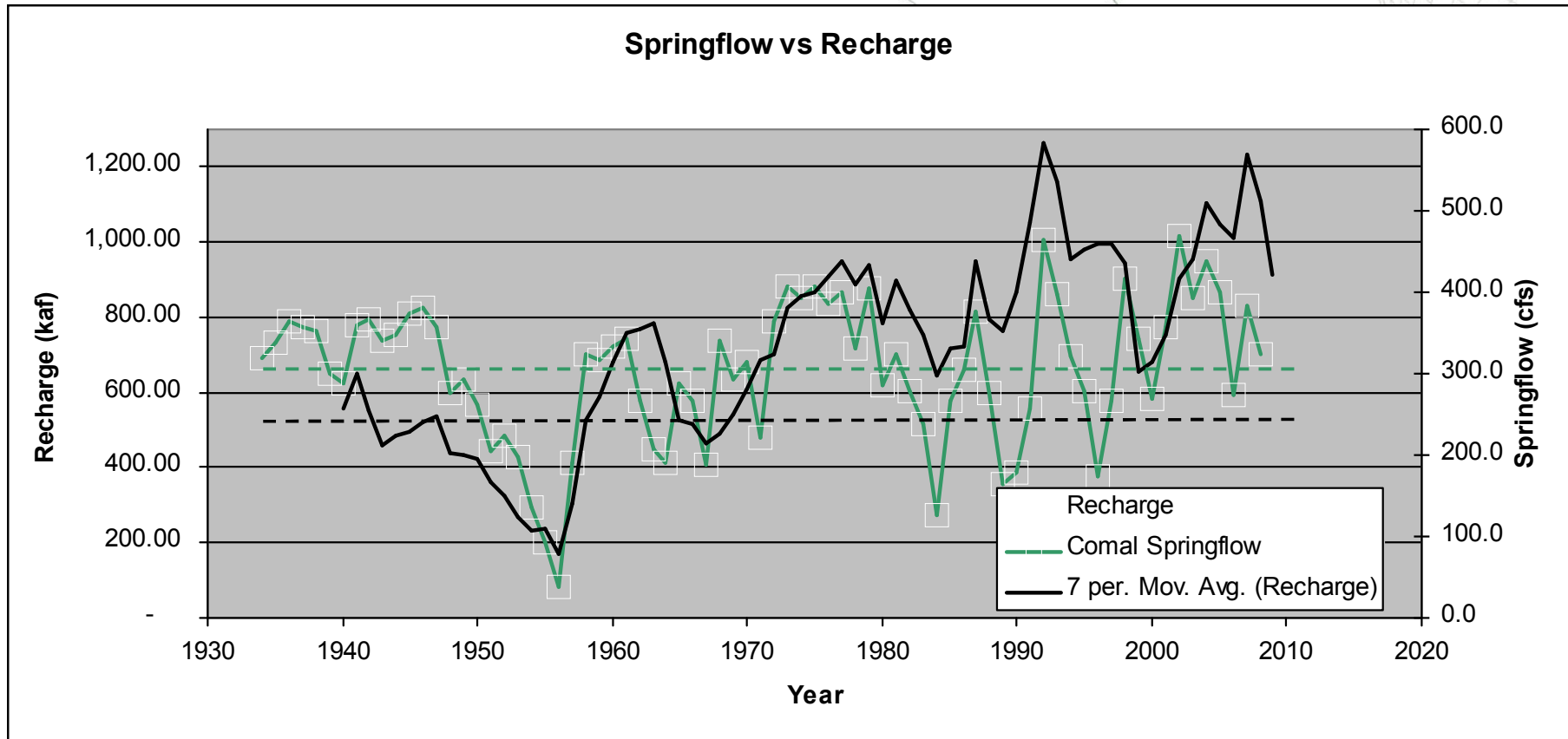




- Probabilistic Analysis
  - Monte Carlo Analysis
  - Contingent probability (dependent upon the preceding rainfall period)

<i>Years</i>	<b>3-yr</b>	<b>5-yr</b>	<b>7-yr</b>	<b>10-yr</b>
<b>2011-2015</b>	0.00%	0.24%	0.00%	0.00%
<b>2011-2020</b>	0.00%	0.16%	0.00%	0.12%
<b>2011-2025</b>	0.03%	0.27%	0.03%	0.11%

1 in 333 years





RECON

A Company of Specialists

*Drought Probability Analysis  
Discussion*

Paul Fromer

January 28, 2011