



**Sandy or gravel bottom**

**Wide, shallow streams**

**Gently-sloping banks  
with vegetation**

**Water table close  
to surface**

**Perennial vegetation**



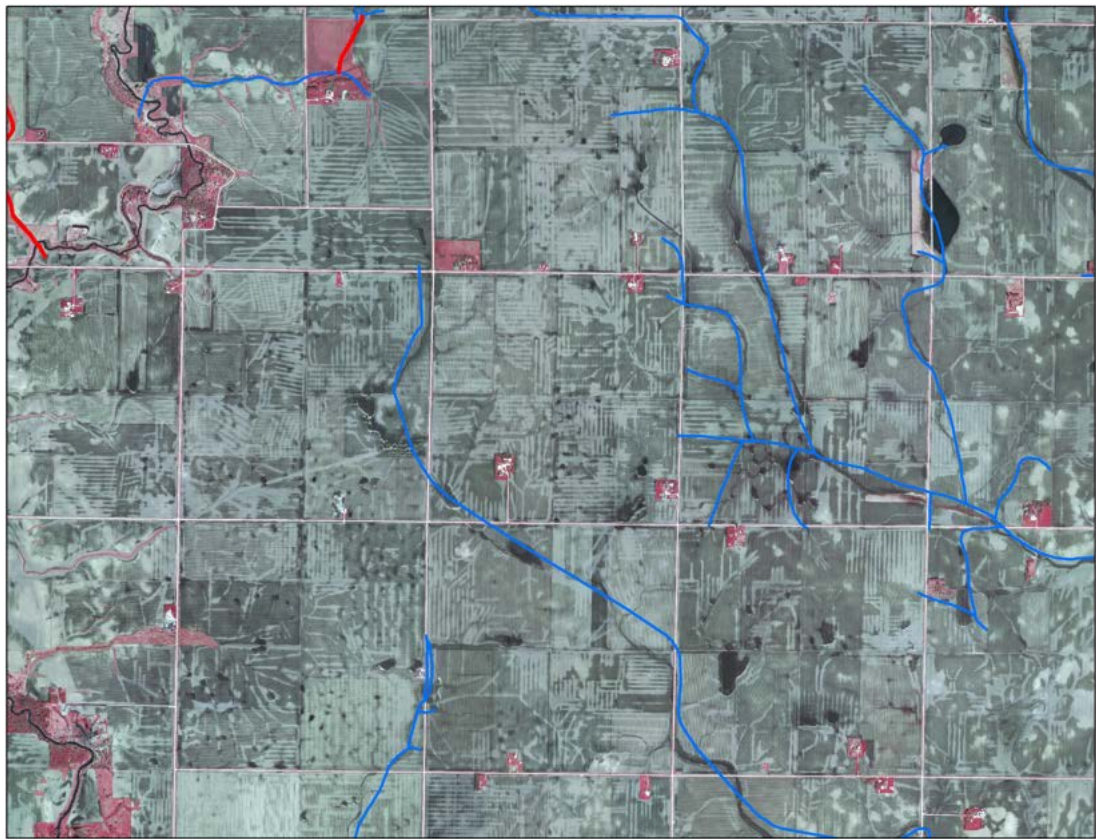
Excavating a large ditch using steam power, circa 1910.



Hand digging tile, Boone Co. IA. ca 1914  
Source: 'An Iowa album: a photographic history, 1860-1920' by M. J. Bennet, University of Iowa Press, Iowa City, Iowa



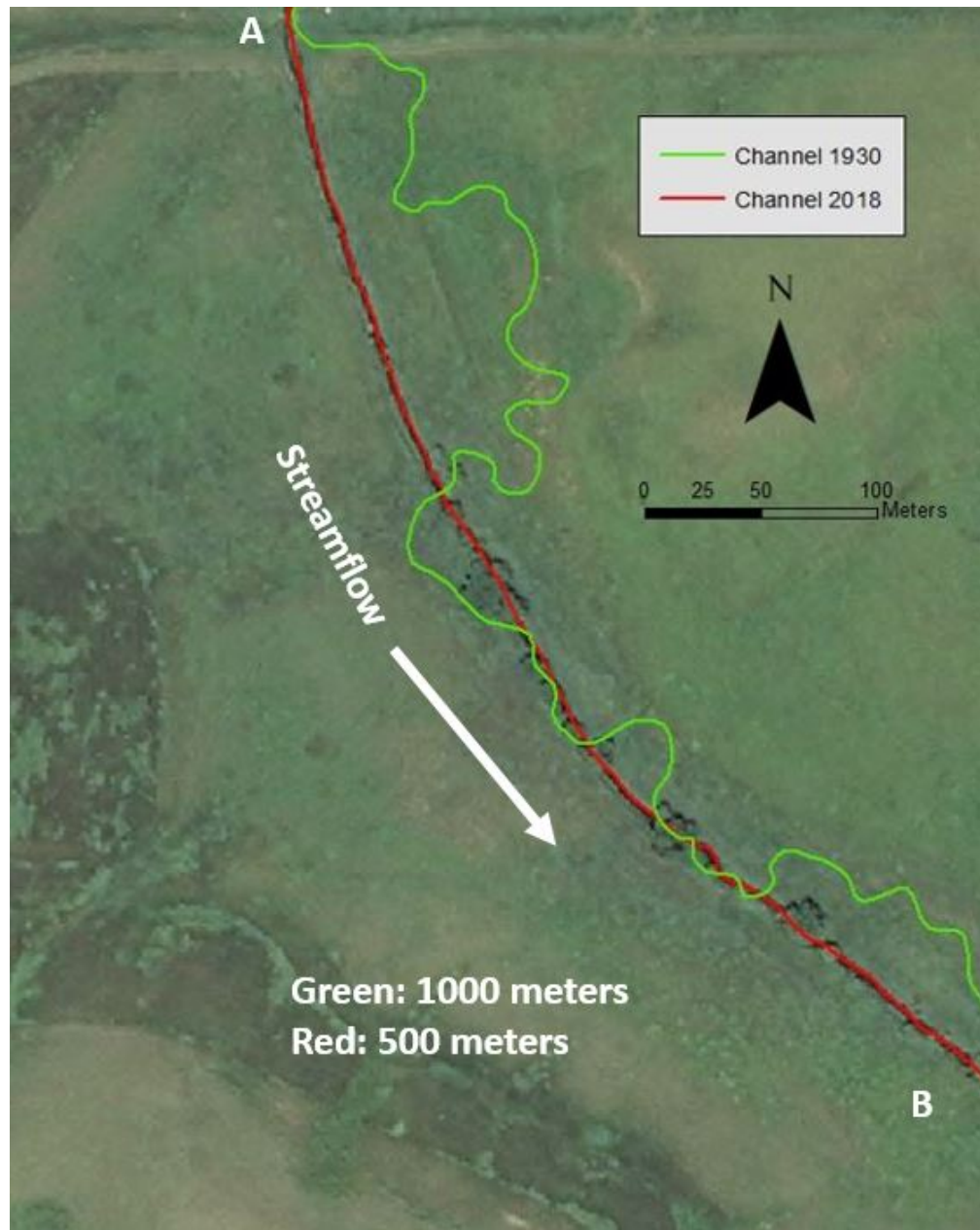






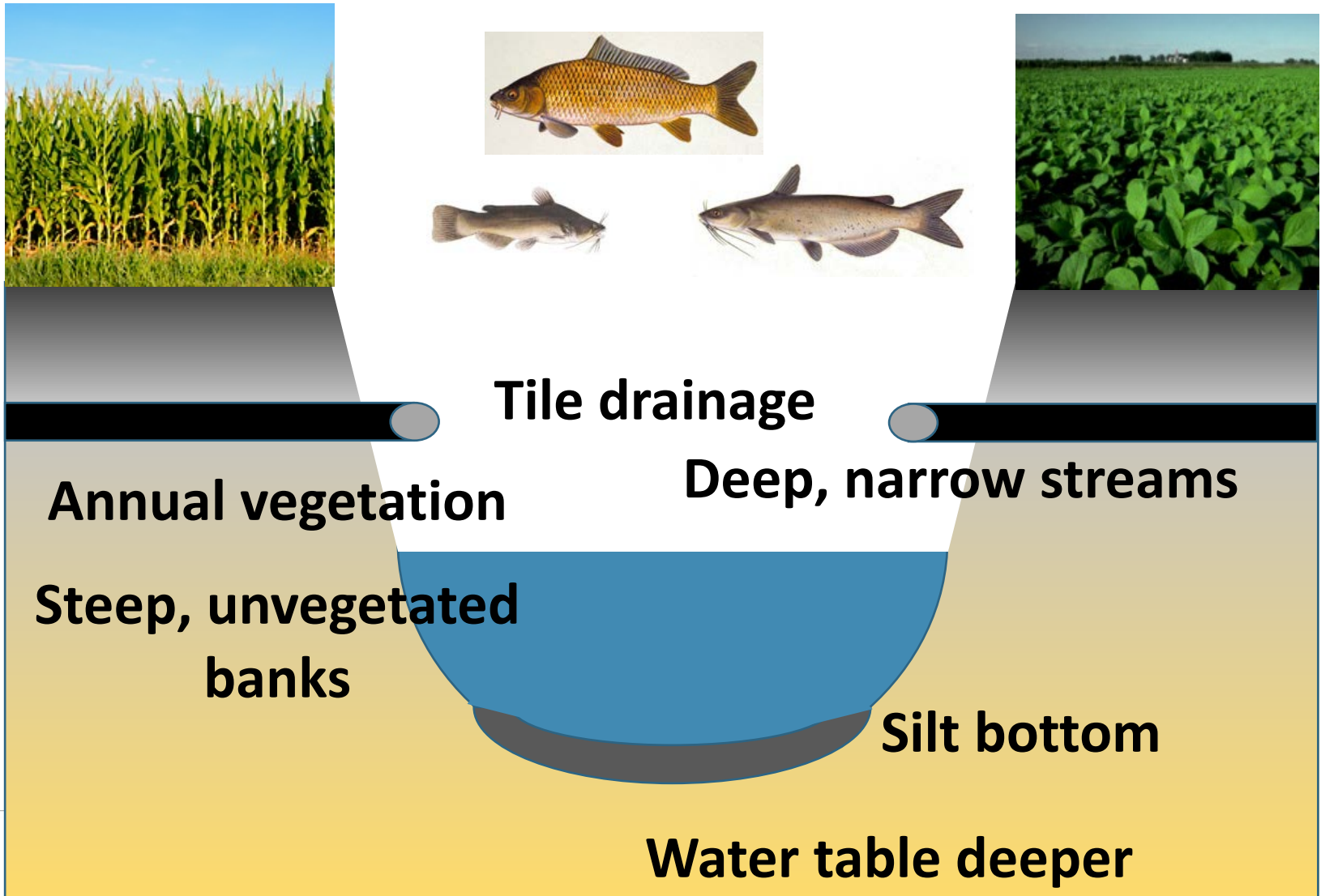






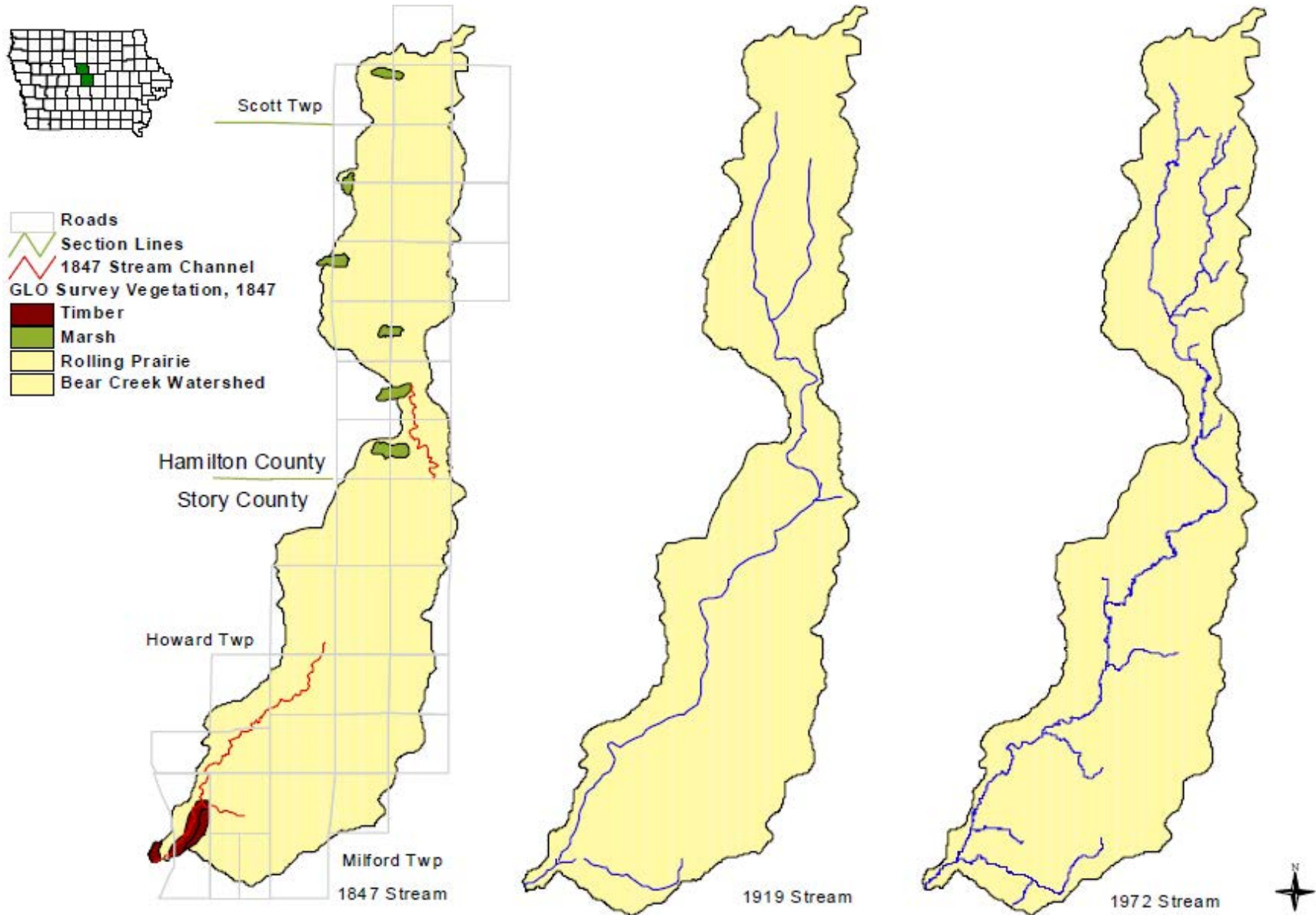
Stream  
incision







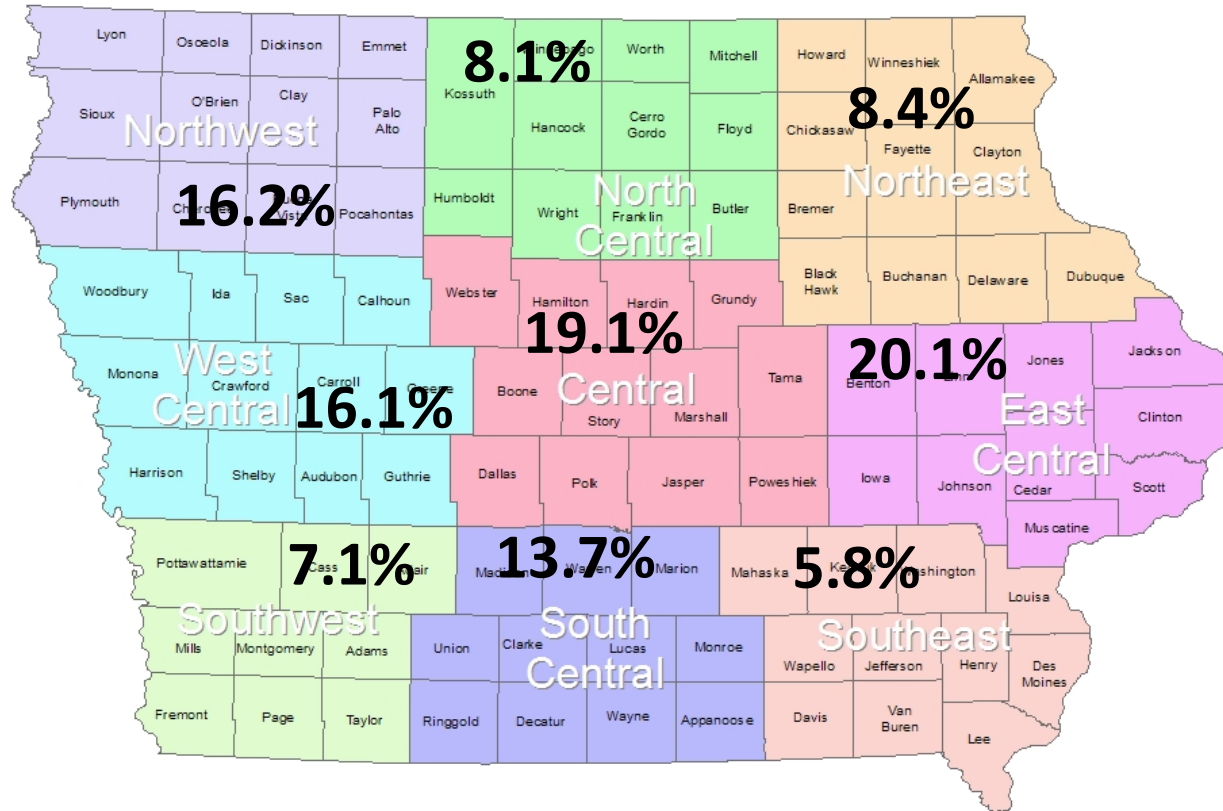
## Extension of river drainage network from 1847 to 1972



Slide courtesy of K. Schilling, Iowa Geological Survey

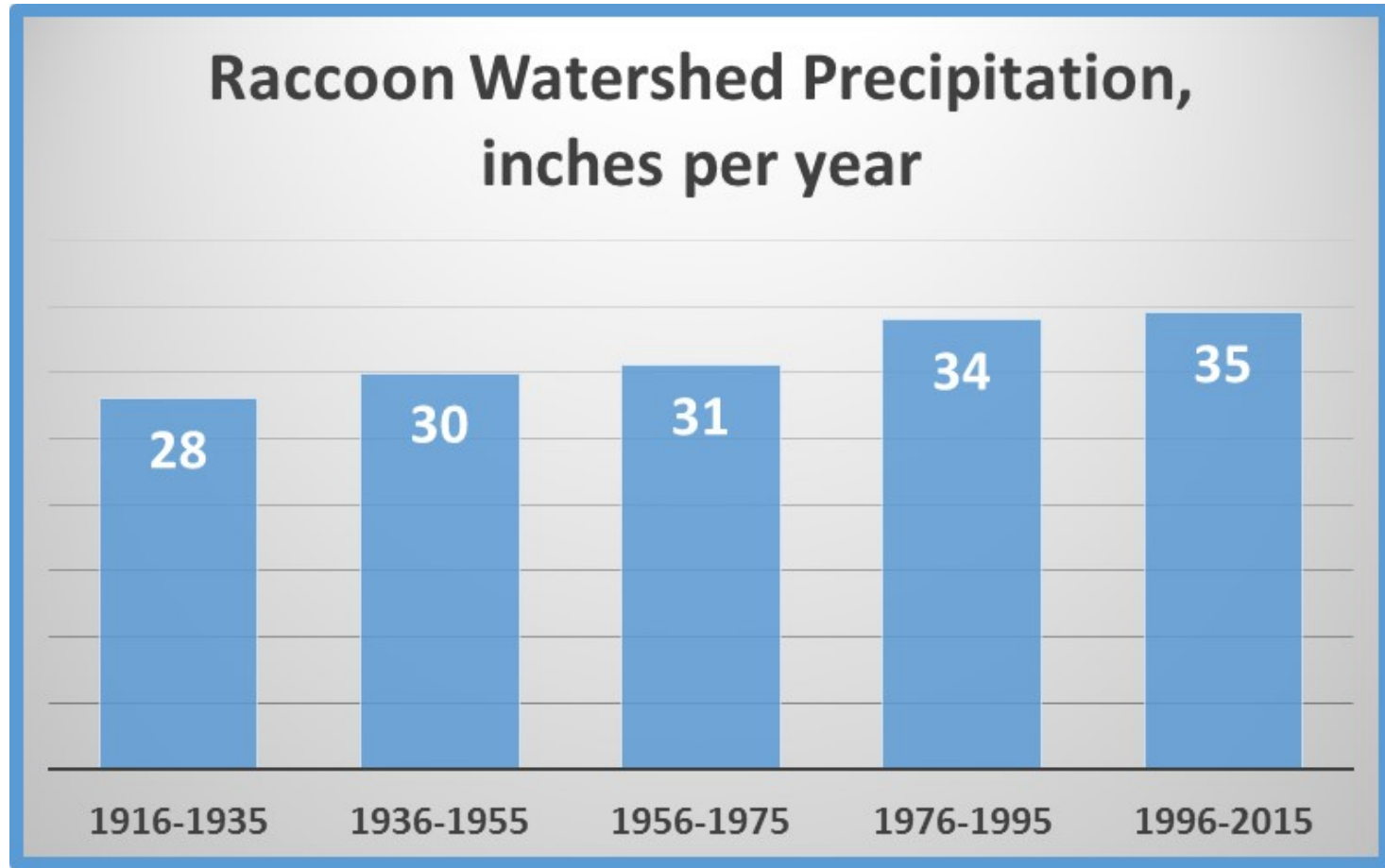


# It's Wetter: Increase over last century



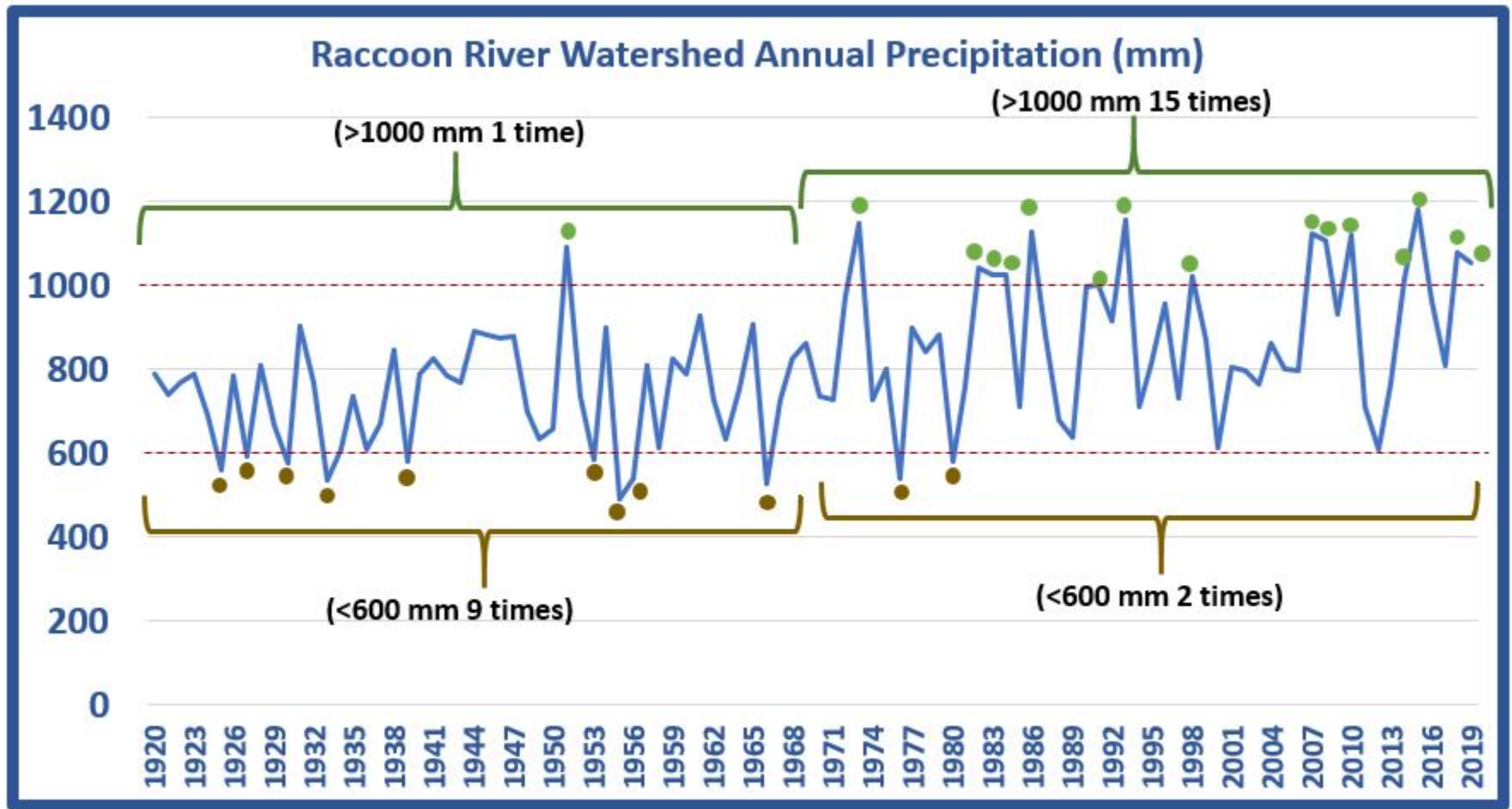
U.S. Department of Agriculture Crop Reporting Districts

# It's Wetter

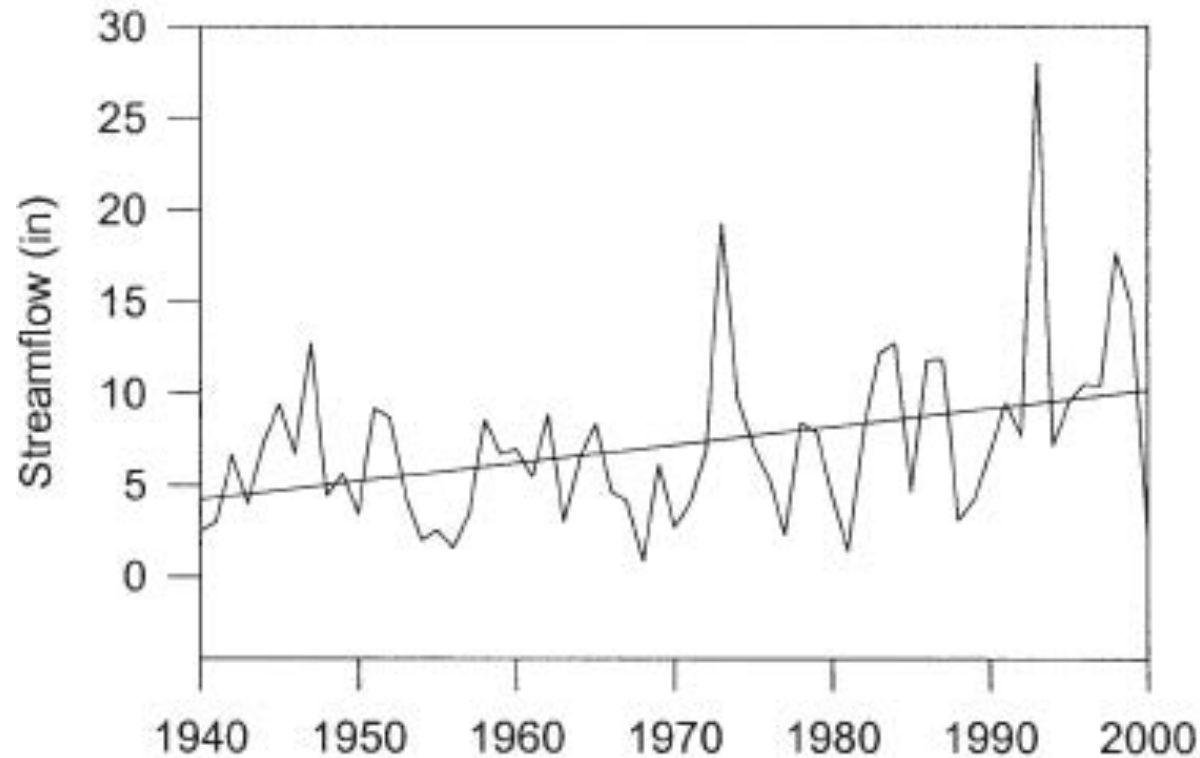




# Last Century: Raccoon Watershed



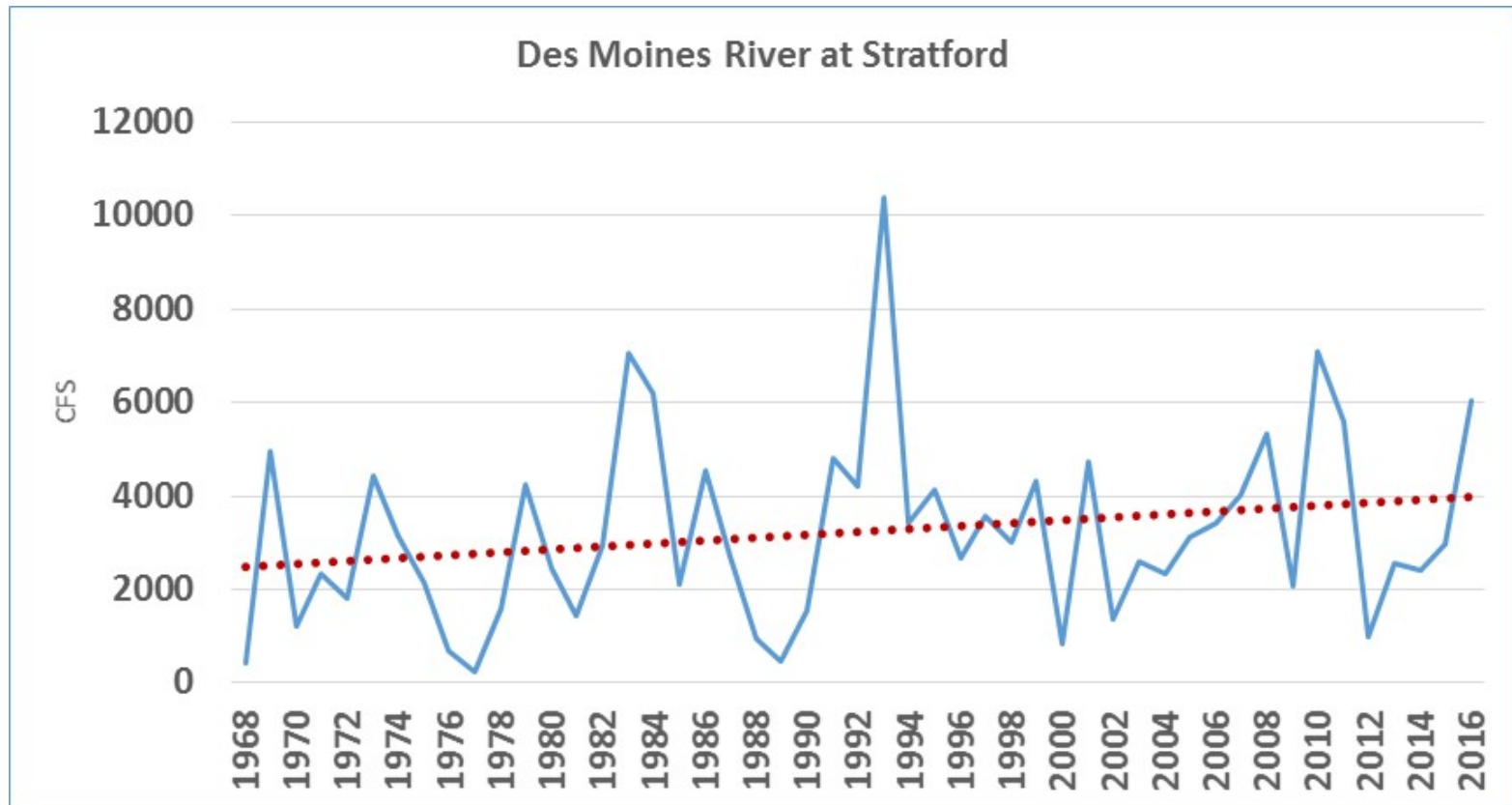
# E. Nishnabotna



Schilling, K. E. and Libra, R. D. (2003), INCREASED BASEFLOW IN IOWA OVER THE SECOND HALF OF THE 20TH CENTURY<sup>1</sup>. JAWRA Journal of the American Water Resources Association, 39: 851–860.  
doi:10.1111/j.1752-1688.2003.tb04410.x



# Des Moines R. at Stratford



# Iowa R. at Marengo

