

The April 1 Peak Snowpack Metric

Is it Moving in California? . . . and Other Musings



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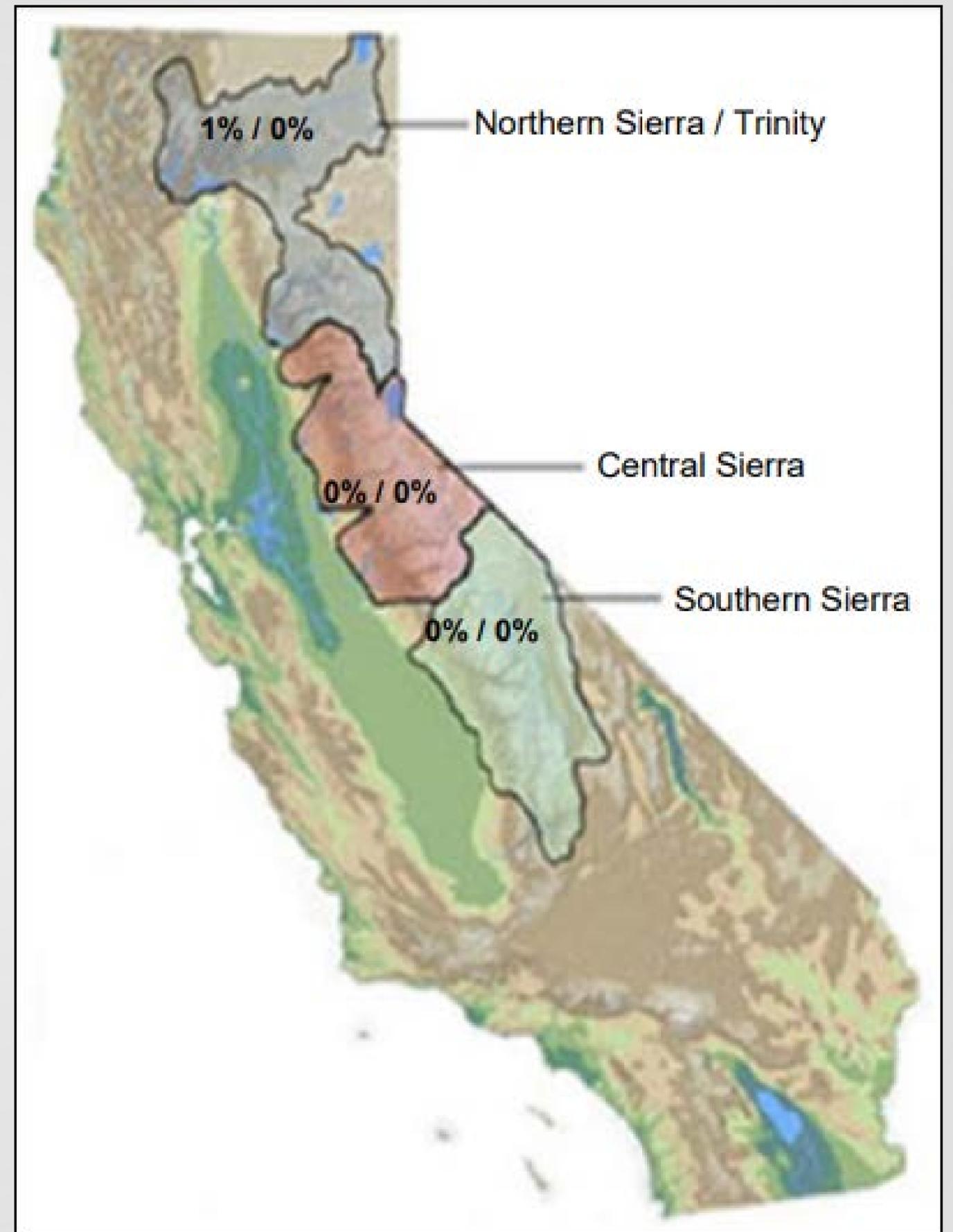
Premise of the Question

- Inspired by Keith Musselman's talk at the 2019 Western Snow Conference
- Query of regional and statewide snowpack data for peak day for each Calendar Year
- 22 years of continuous records
- If equal peaks found, chose later date

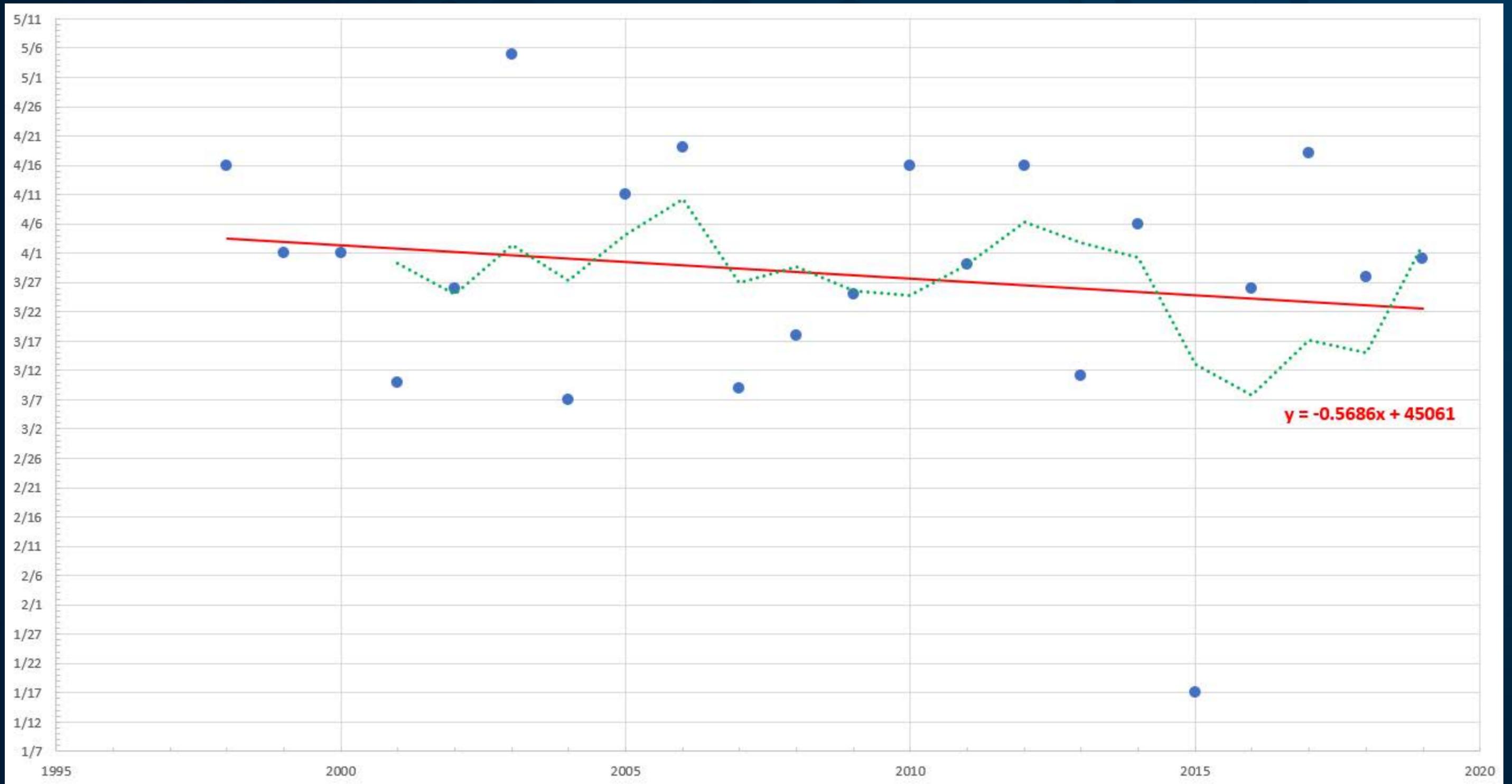


Constitution of Regions

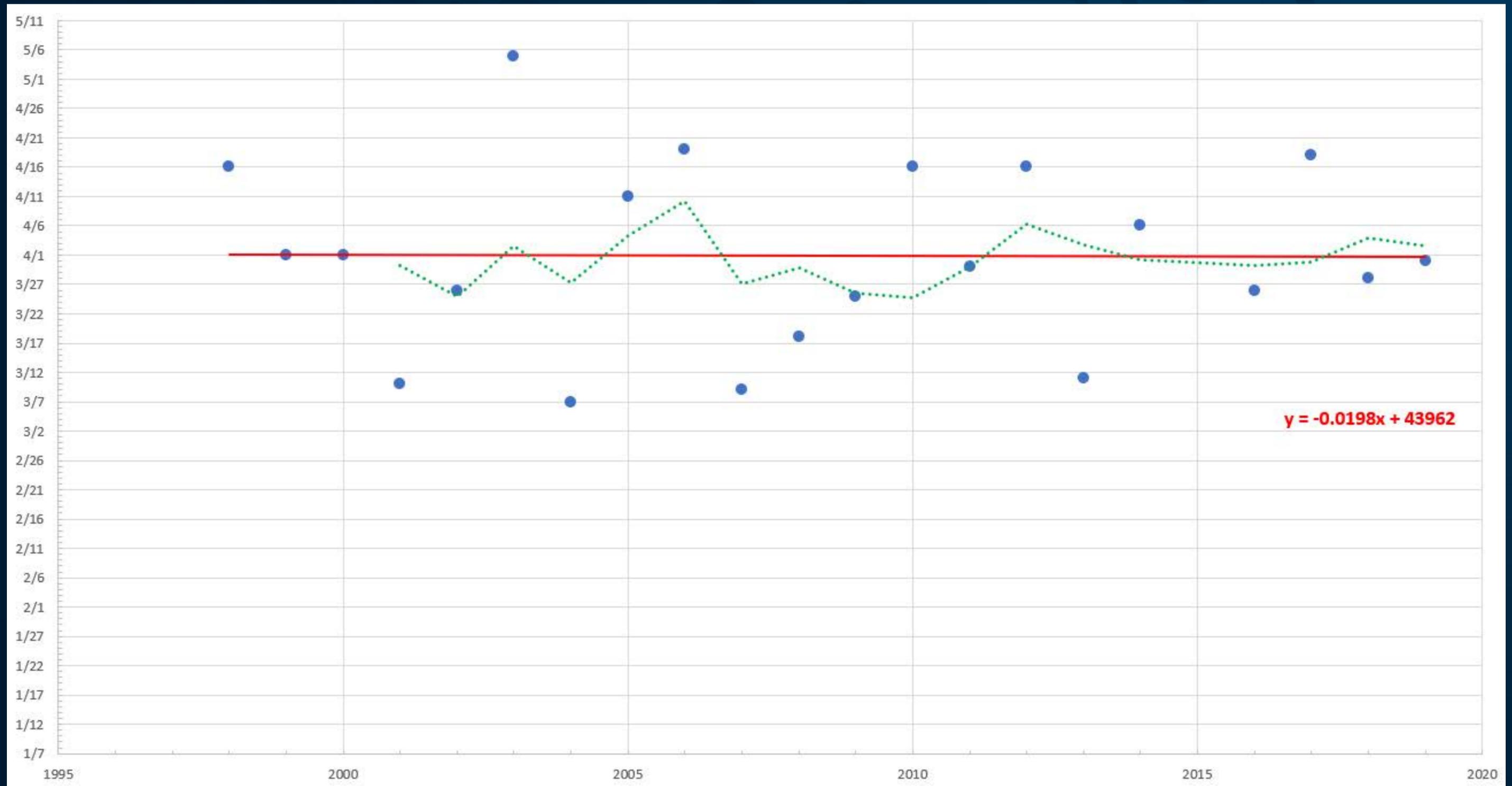
- **Northern:** Trinity through Feather & Truckee
- **Central:** Yuba & Tahoe through Merced & Walker
- **Southern:** San Joaquin & Mono through Kern



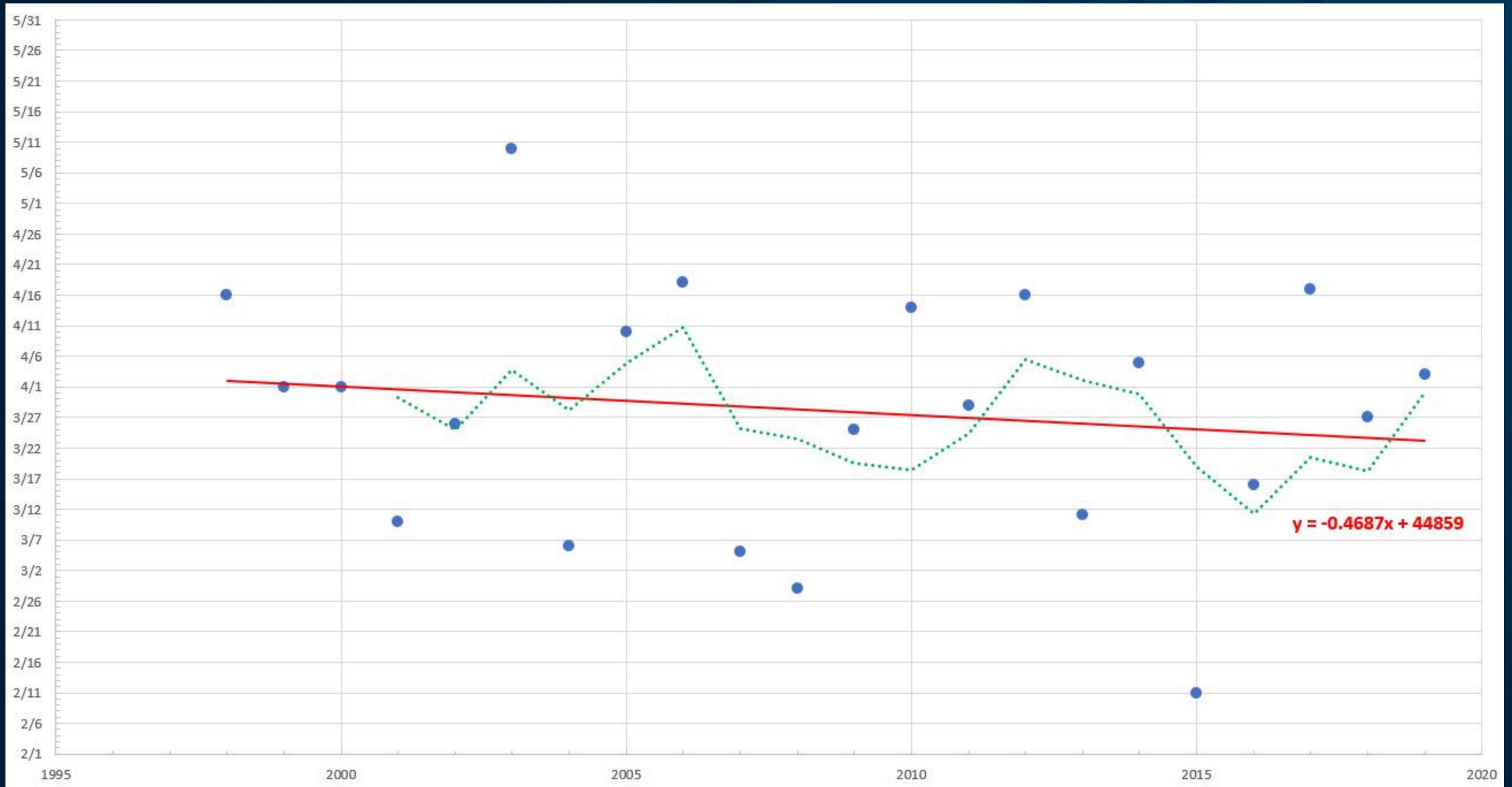
Northern Region Peak Dates by Year



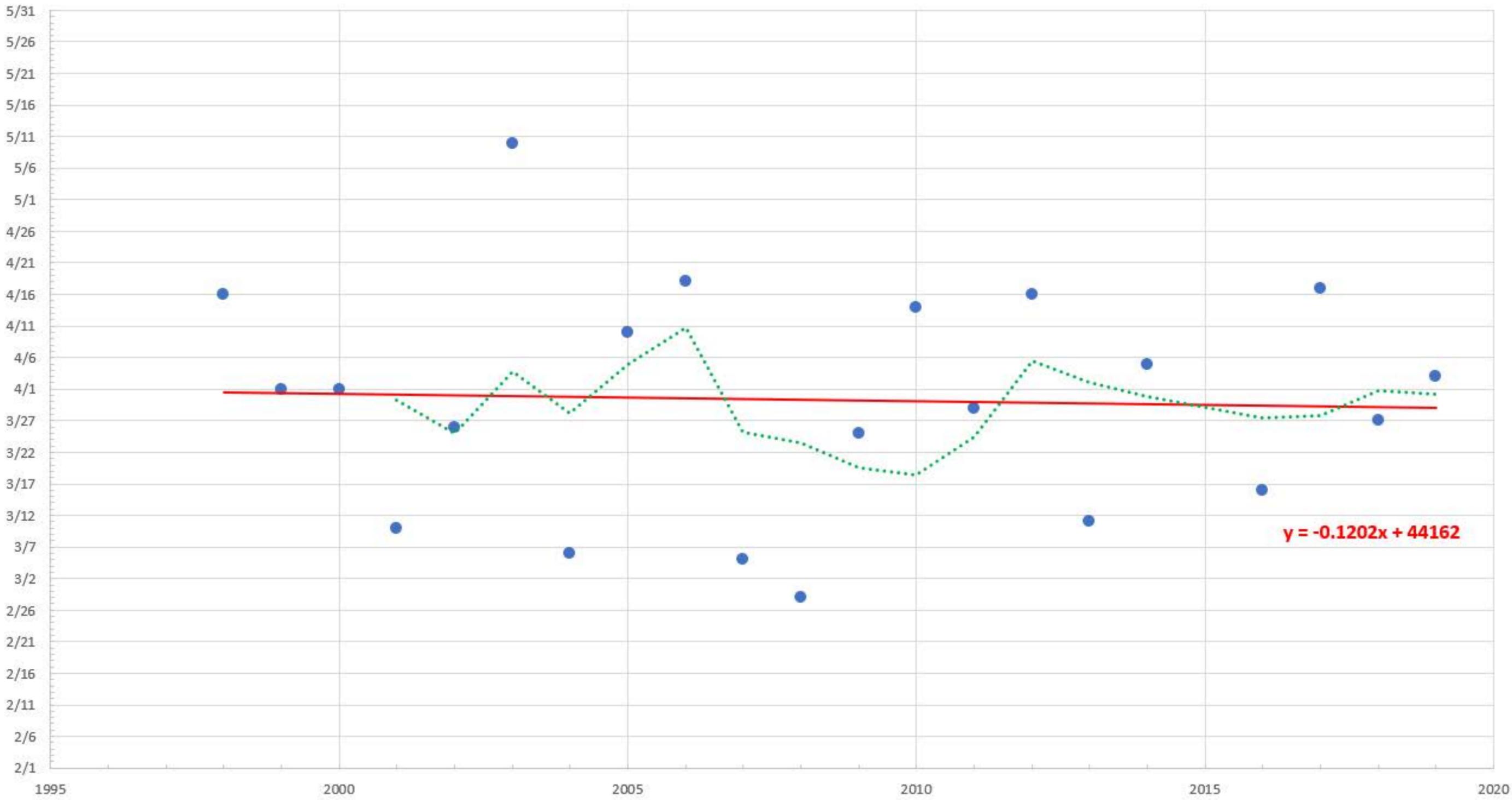
Northern Region Peak Dates by Year (Modified)



Central Region Peak Dates by Year



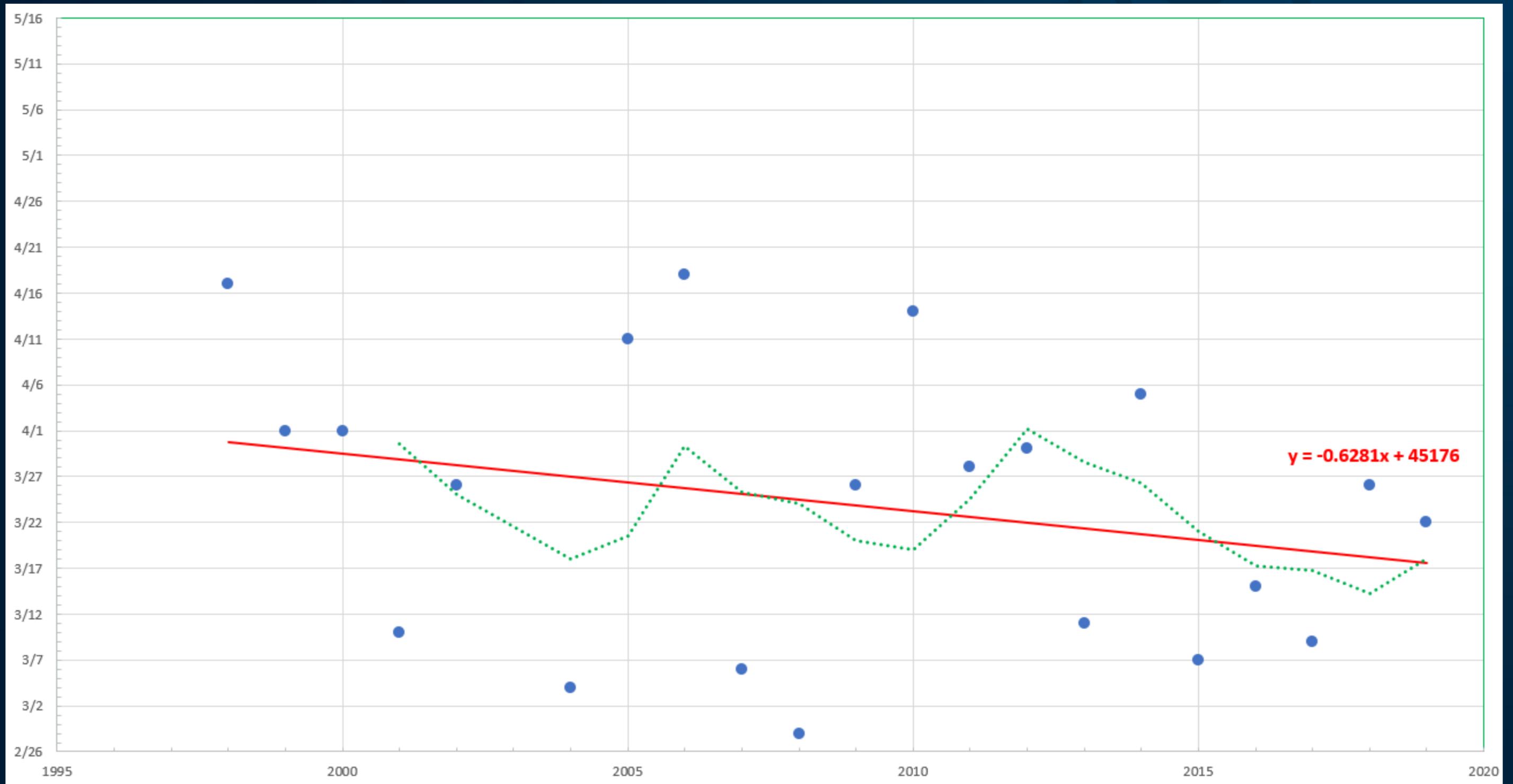
Central Region Peak Dates by Year (Modified)



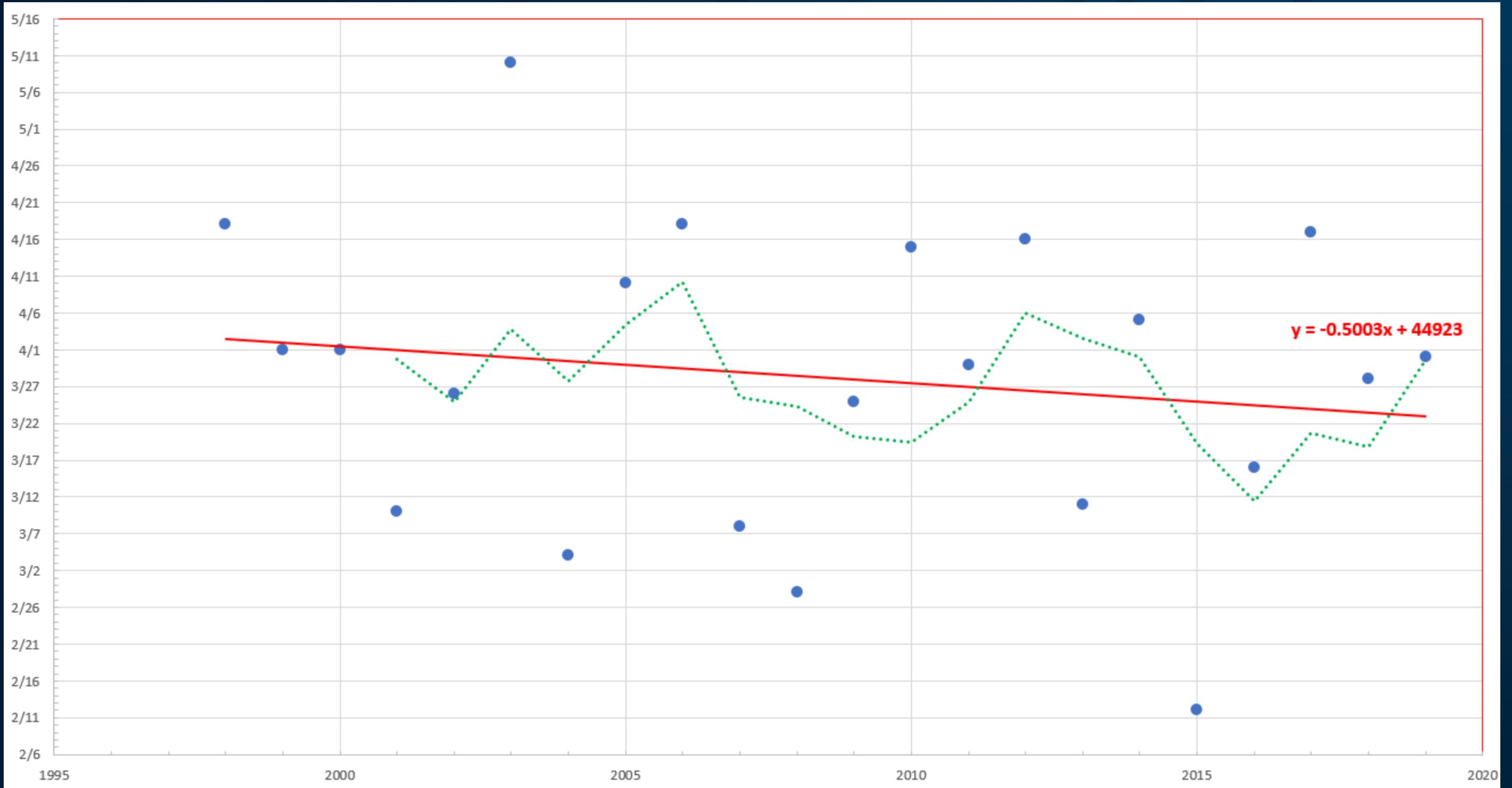
Southern Region Peak Dates by Year



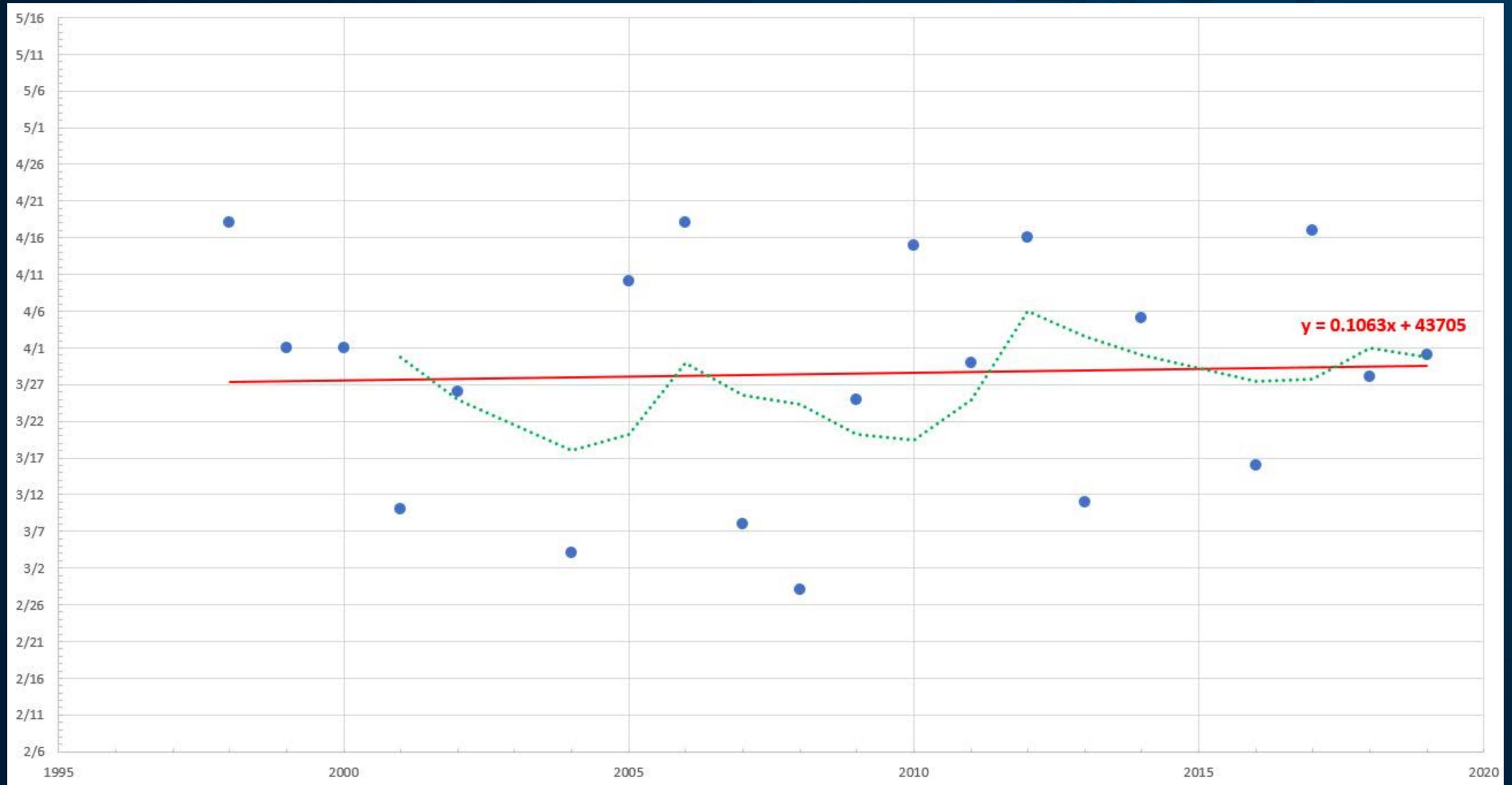
Southern Region Peak Dates by Year (Modified)



Statewide Peak Dates by Year



Statewide Peak Dates by Year (Modified)

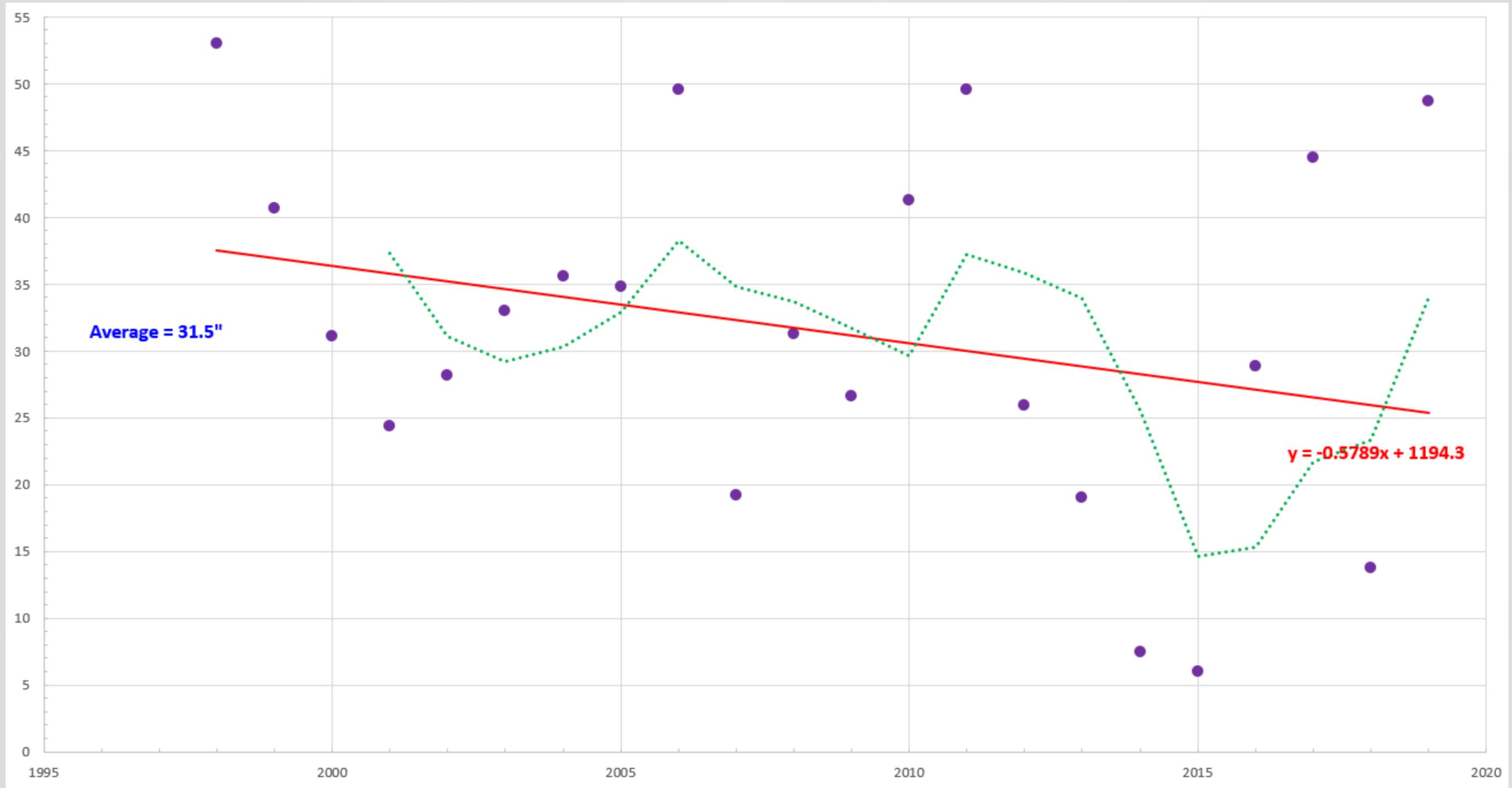


What about the Peak Snow Water Content?

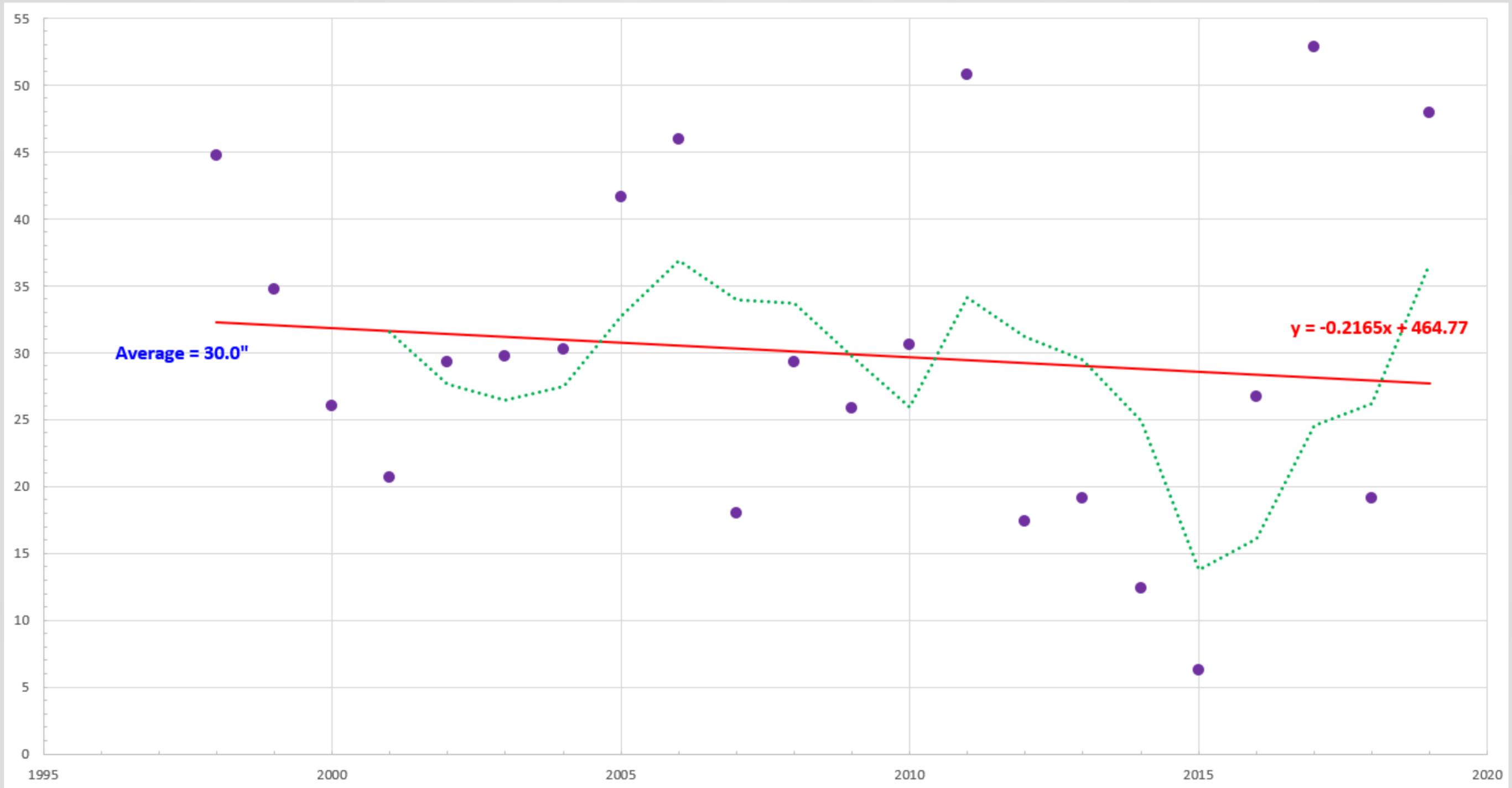
- Used peak SWC value for each Calendar Year
- Wanted to see if trend in peak SWC could be discerned regardless of when that peak fell each year, i.e. not necessarily April 1, etc.



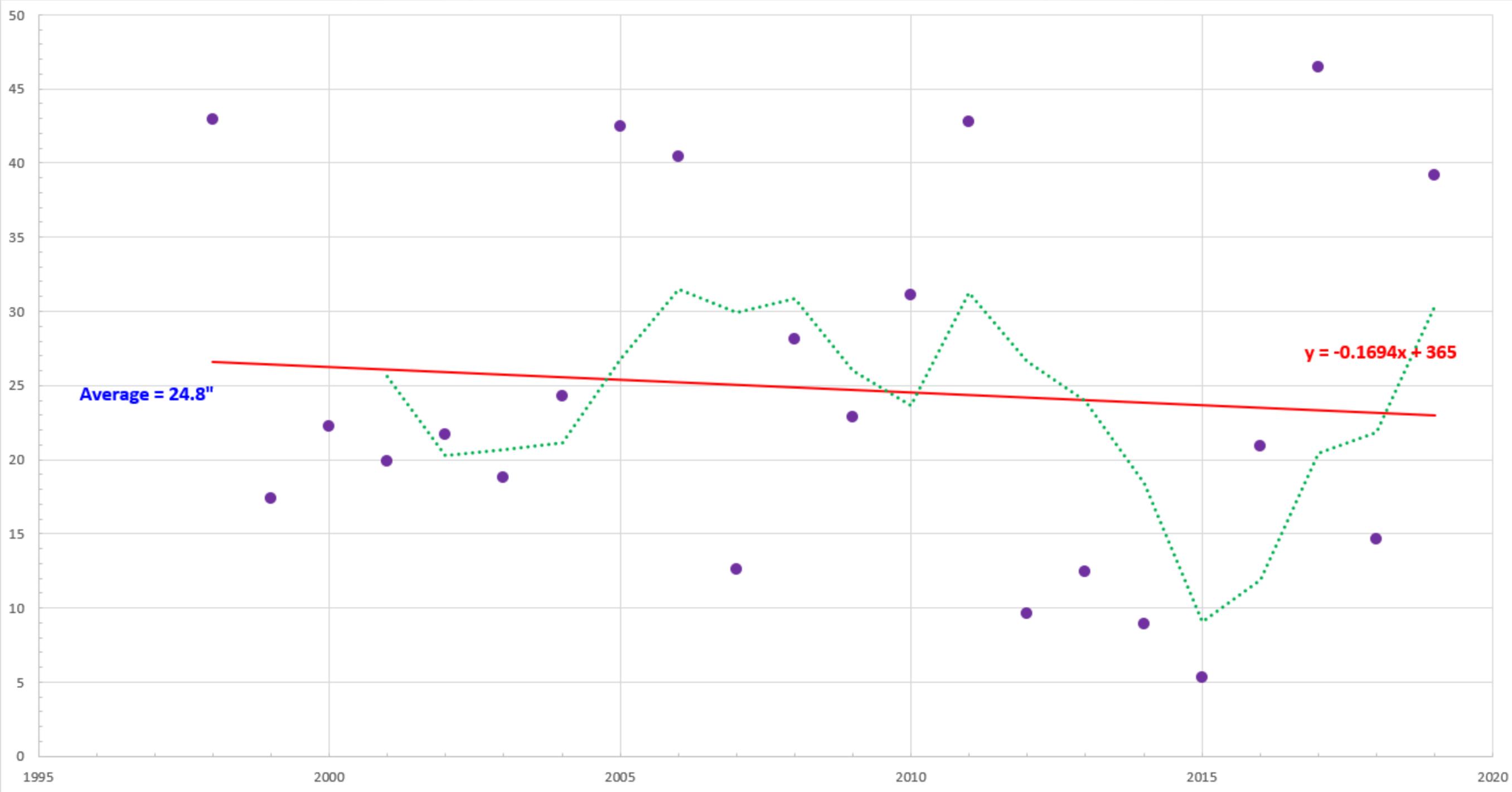
Northern Region Peak SWC by Year



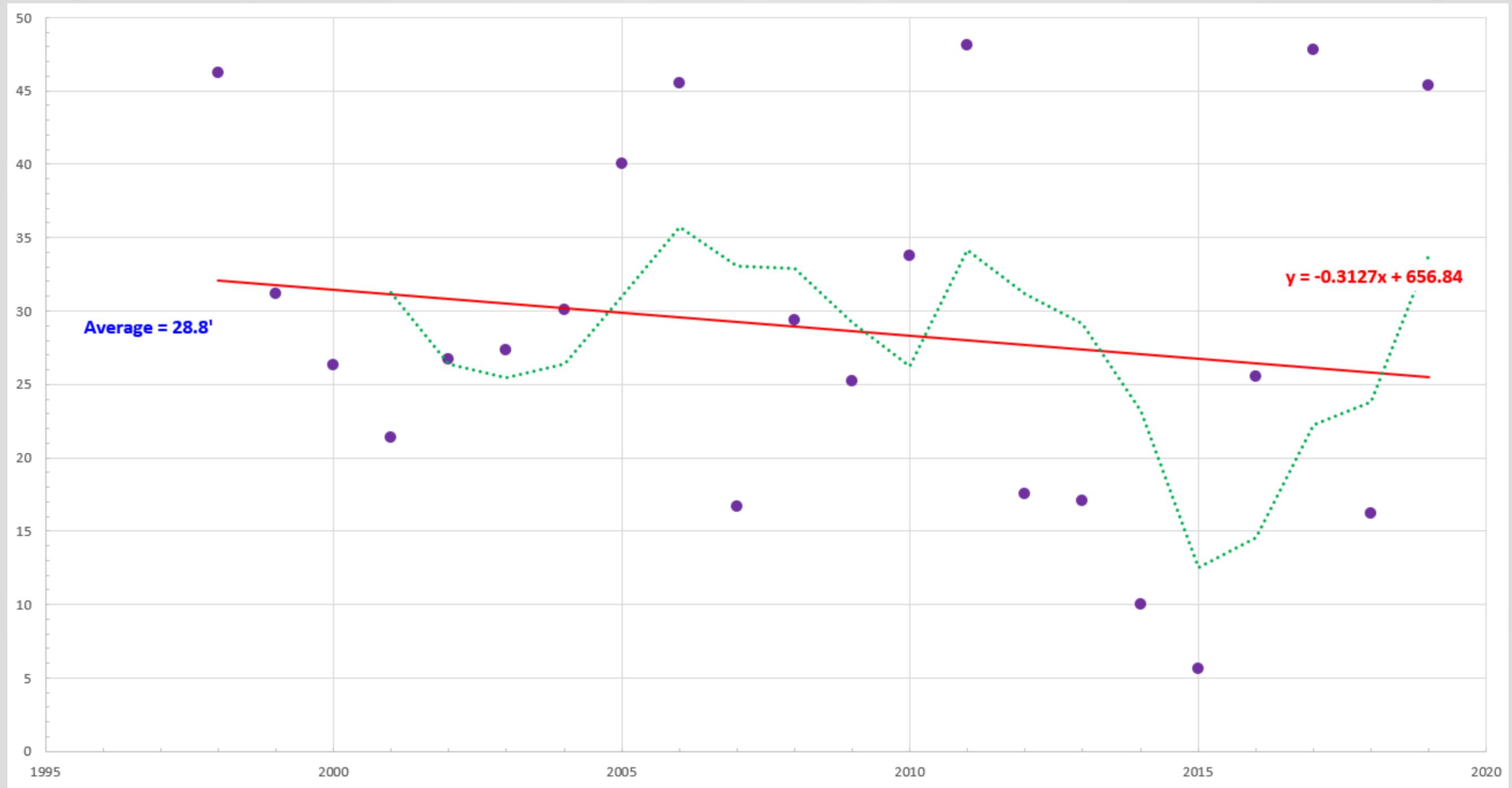
Central Region Peak SWC by Year



Southern Region Peak SWC by Year



Statewide Peak SWC by Year



Conclusions

- Peak snowpack does appear to be moving earlier in all three regions and statewide
- If 2015 is disregarded, much lower regression for Northern, Central, and Statewide
- Peak snowpack SWC does trend in decrease; strongest decrease in the Northern region
- Southern region shows fastest regression in peak date, yet lowest decline in peak SWC

QUESTIONS?

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