# Staying Hydrated

## Predicting water needs in California

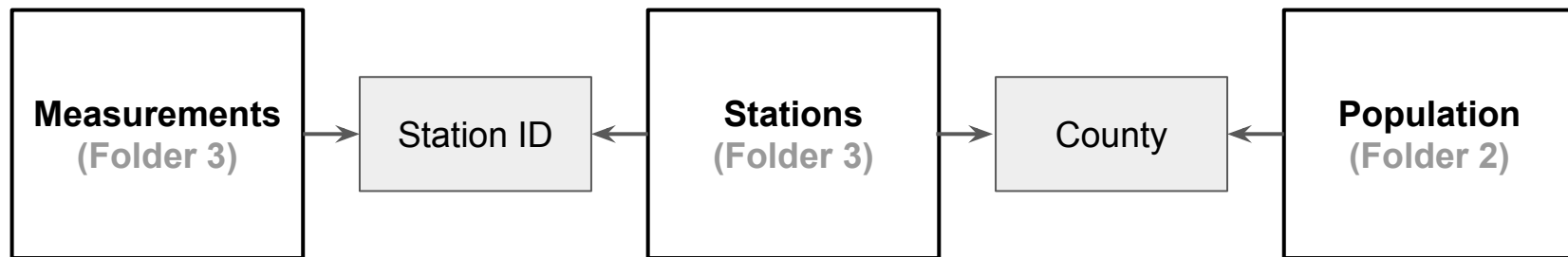Presented by *HydroPy*
May 19, 2019

# Objective

Forecast future water needs by county based on:
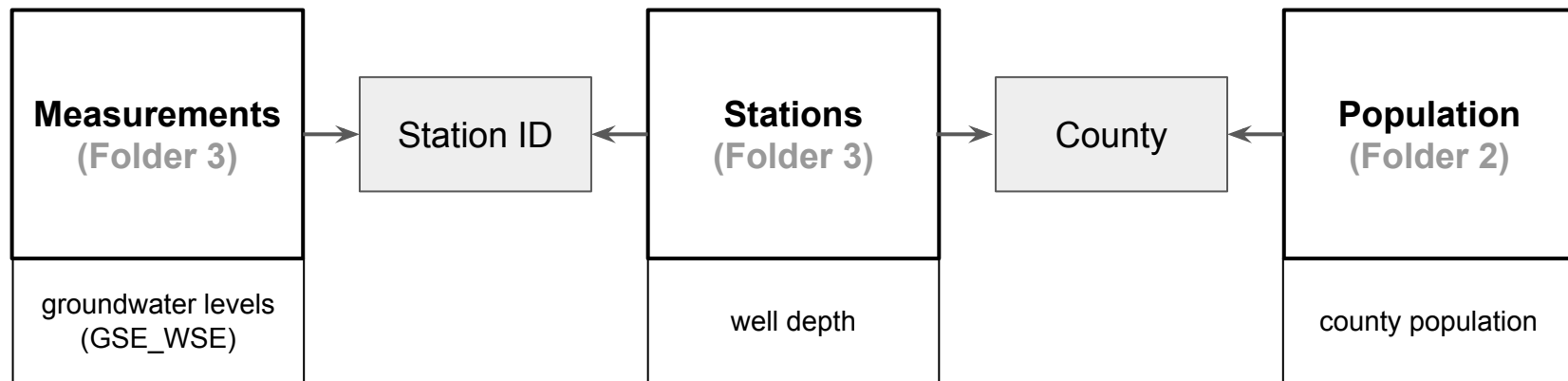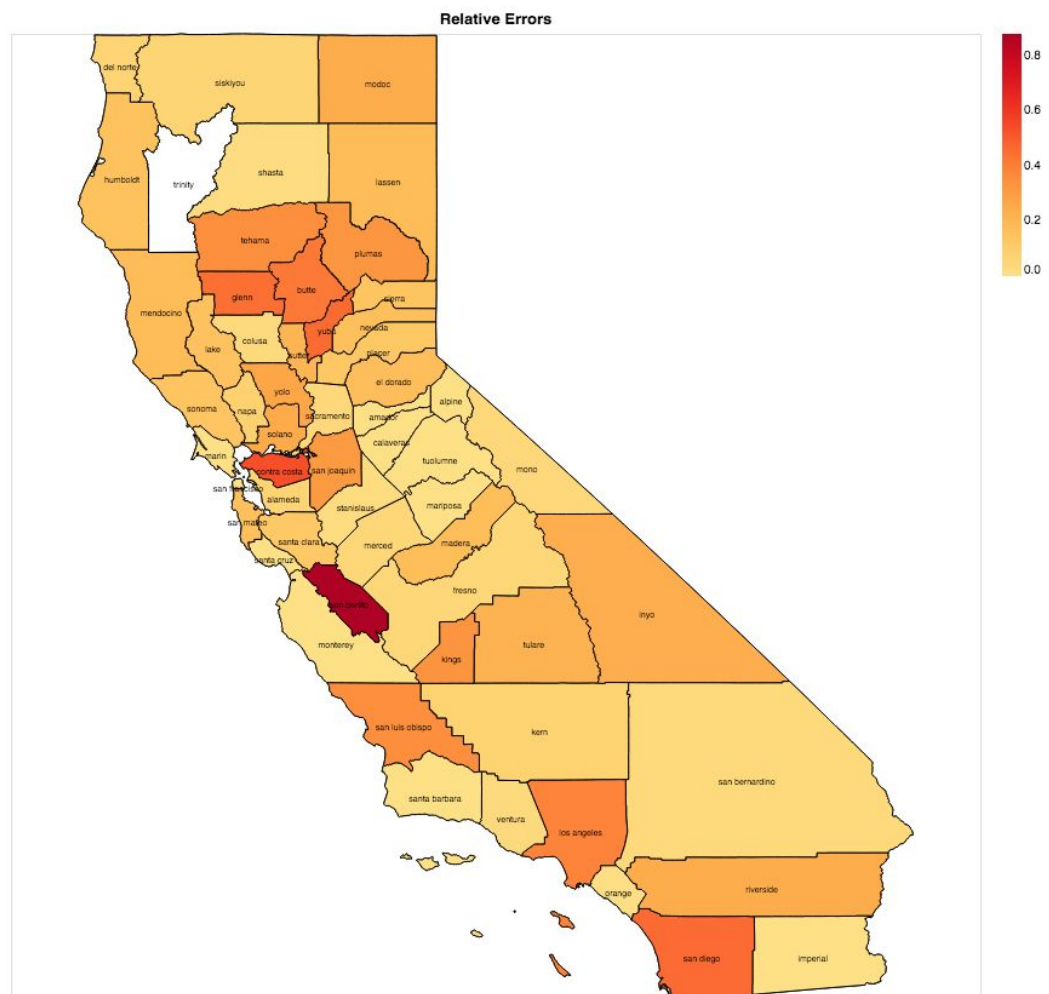
- Groundwater levels
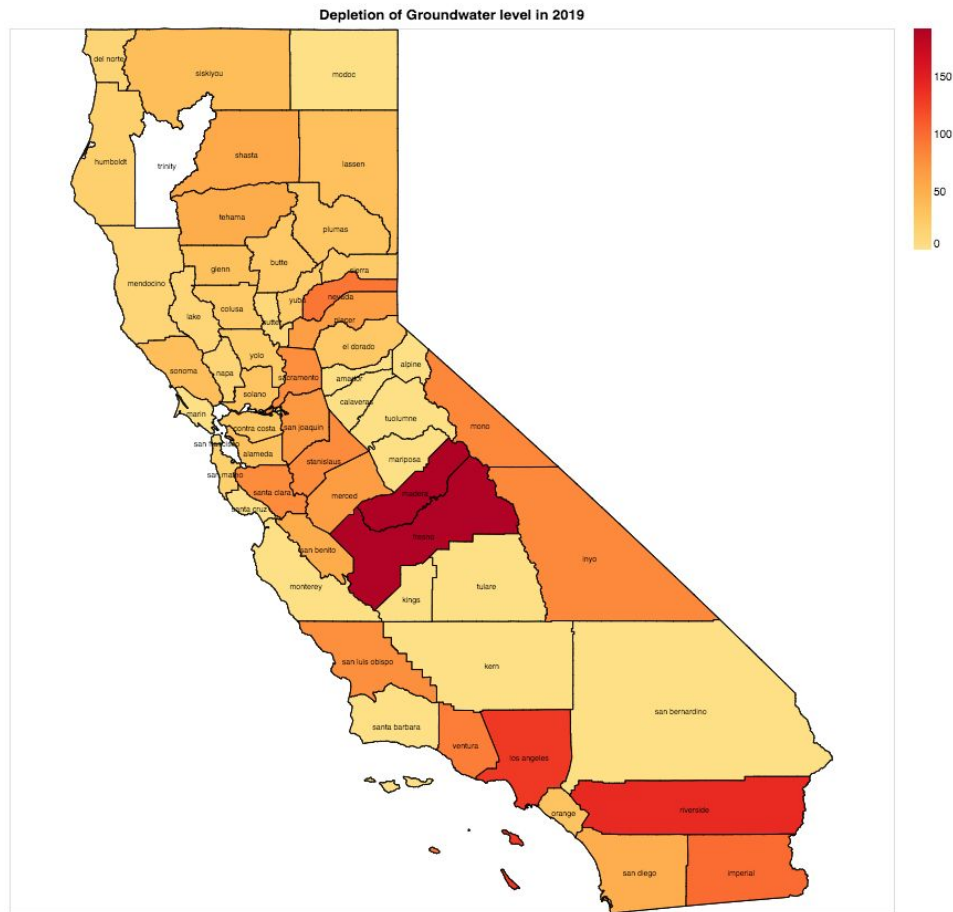- Population

# Data Preparation

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# Model Validation
## Relative Errors

Use 1970 - 1999
to predict 2000

# Groundwater Forecast for 2019



Depletion of Groundwater level in 2019

# Groundwater Usage by County Over Time

# **Conclusions**

- Some counties are expecting a **shortfall** in groundwater from prior years:
  - Madera, Fresno, Los Angeles, Riverside
- Water usage is not dependent on population size.
  - Some counties, like Fresno, use more water probably due to agricultural needs.

# Thank you! We're team HydroPy!



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## Questions?