

SUSTAIN

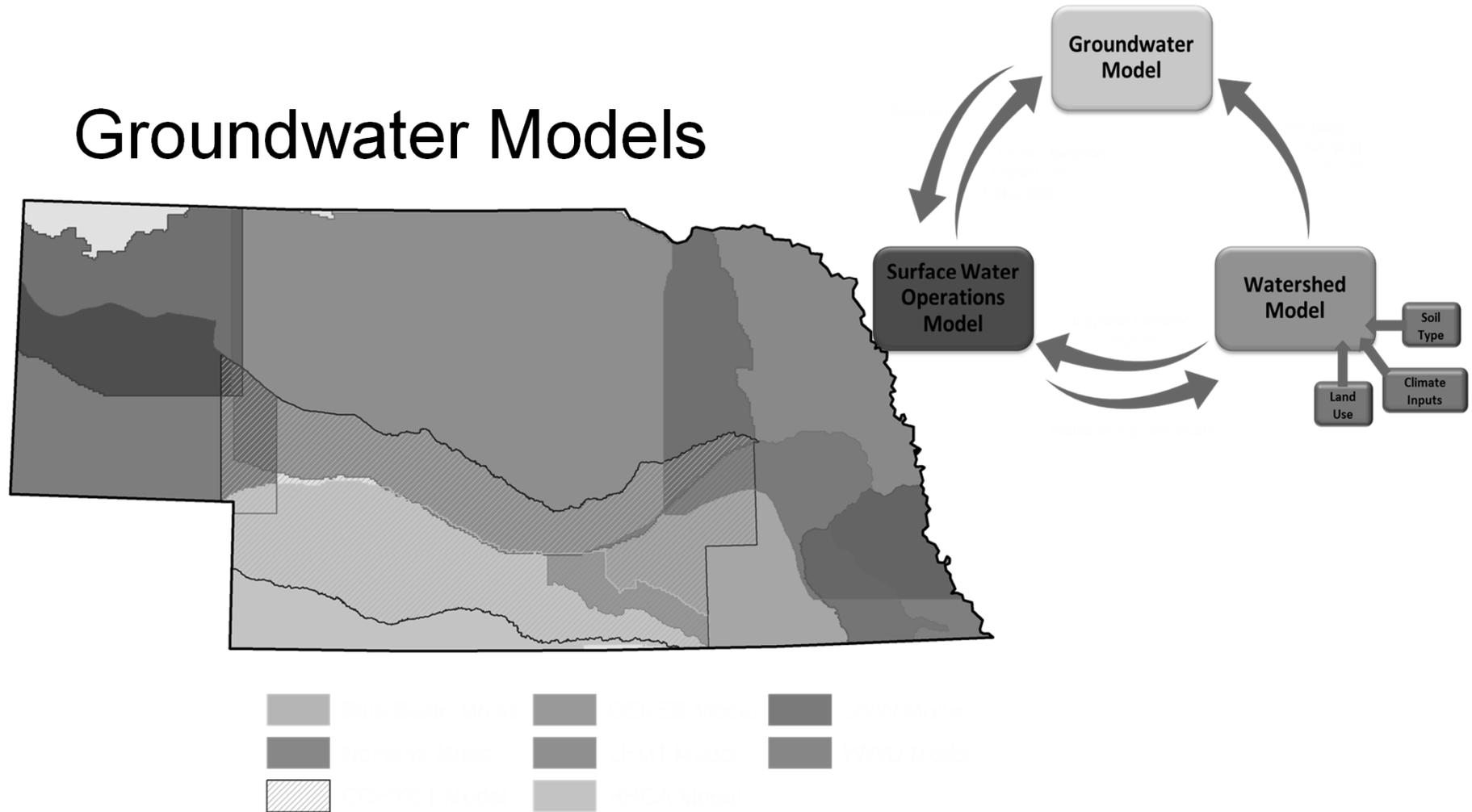
NeDNR's New Modeling Application

NEBRASKA

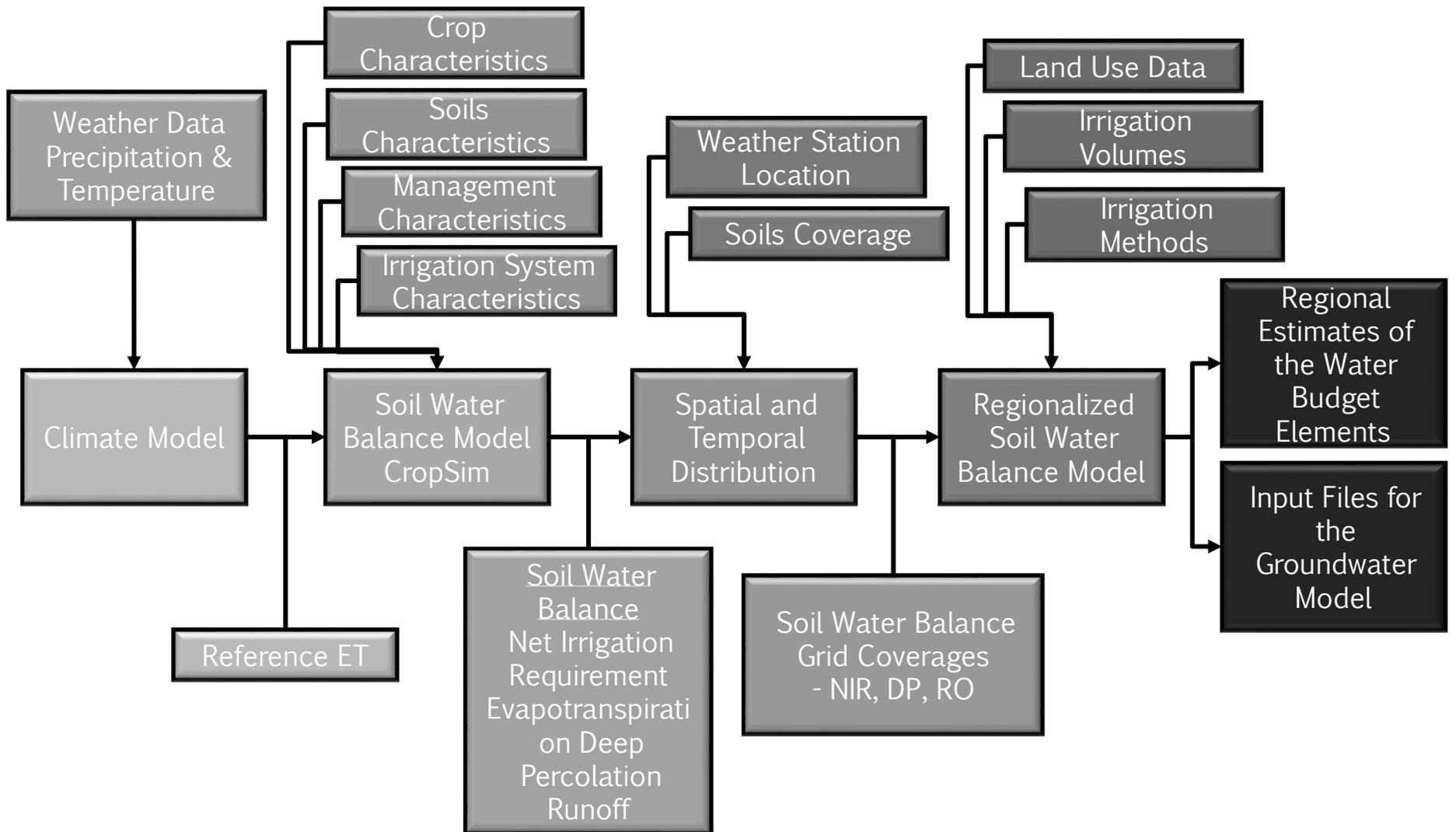
Jennifer Schellpeper, Division Head

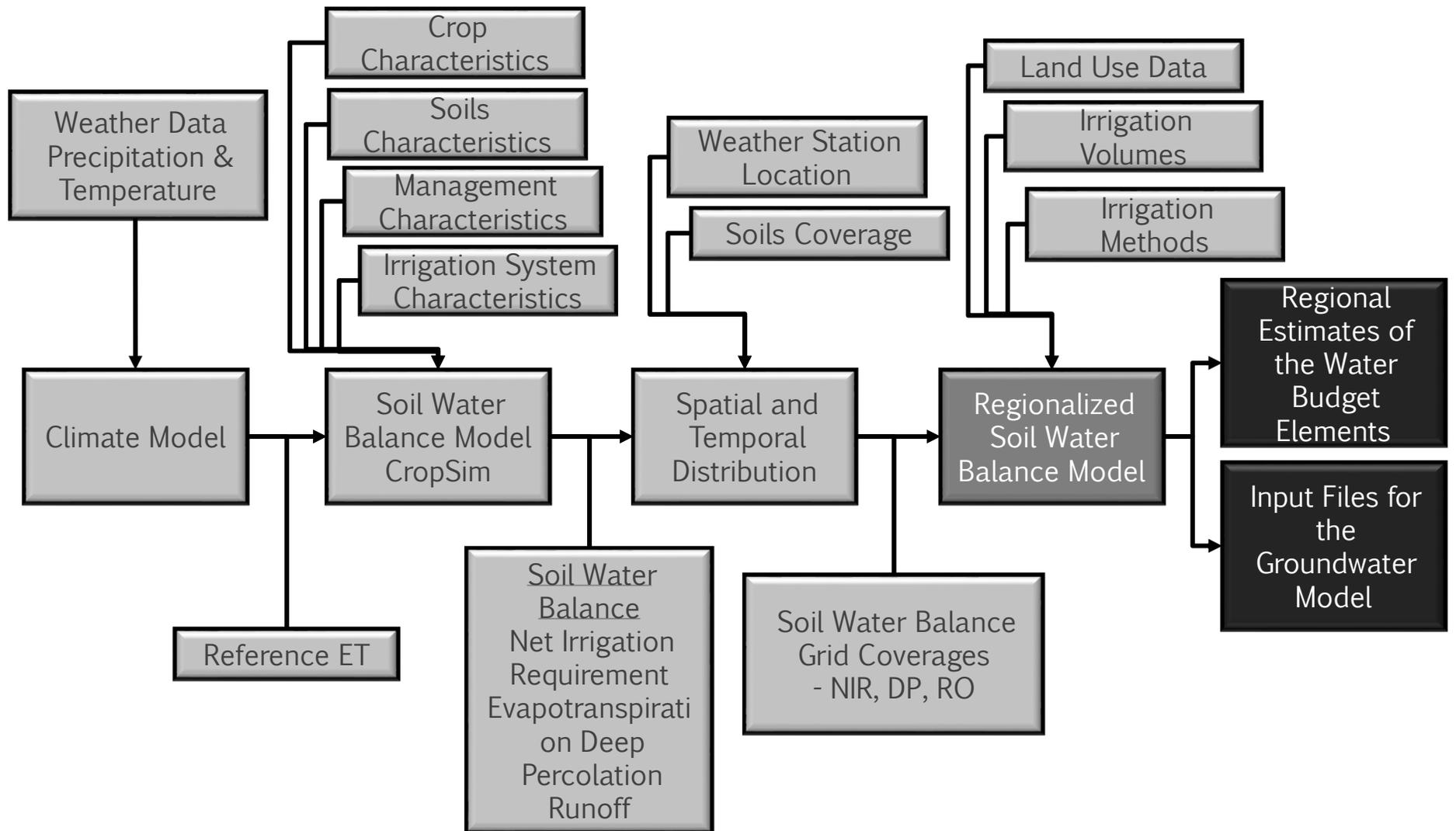
Margeaux Carter, Integrated Management Specialist

Groundwater Models



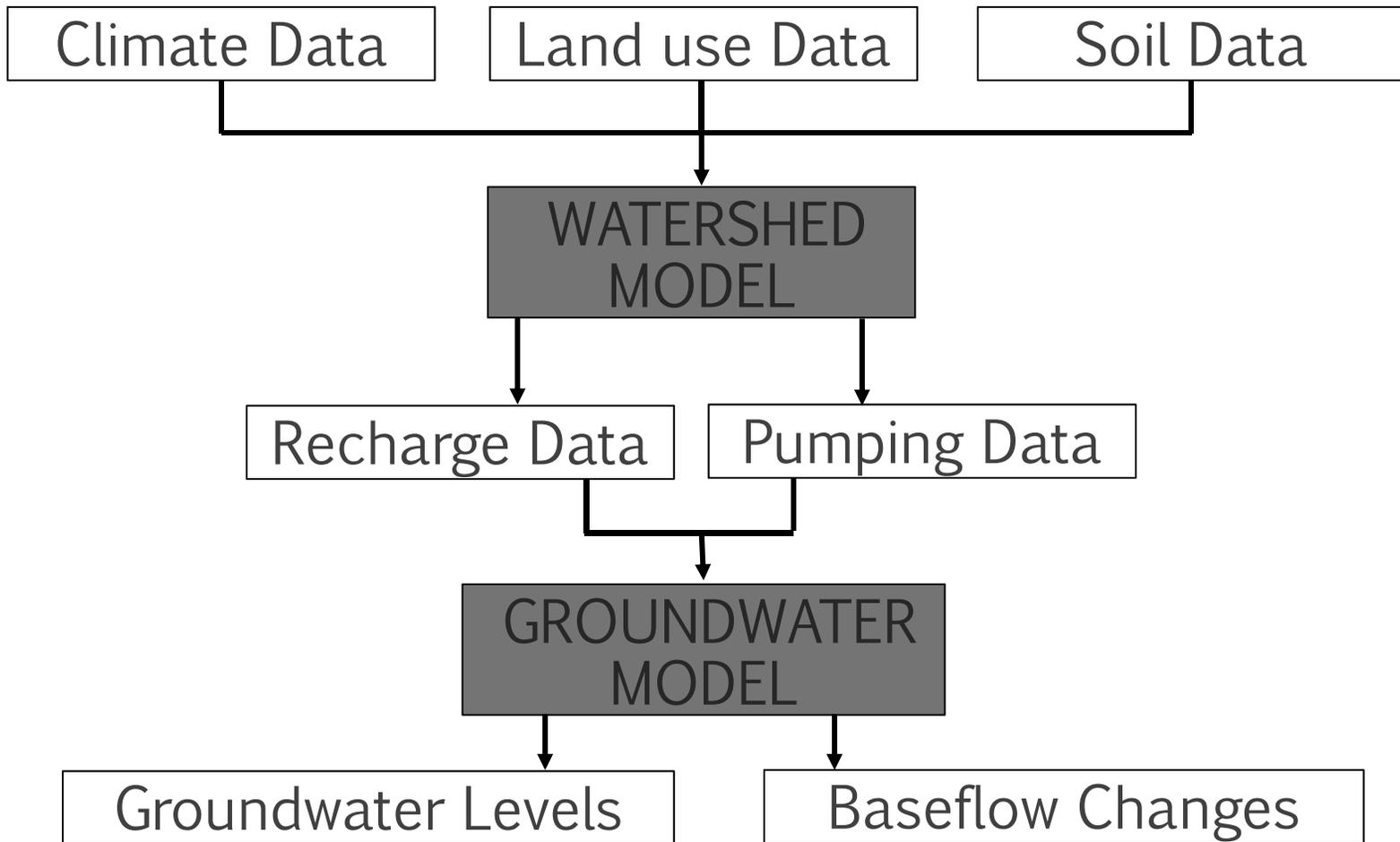
- Goal has been to have statewide groundwater modeling tools... we're almost there





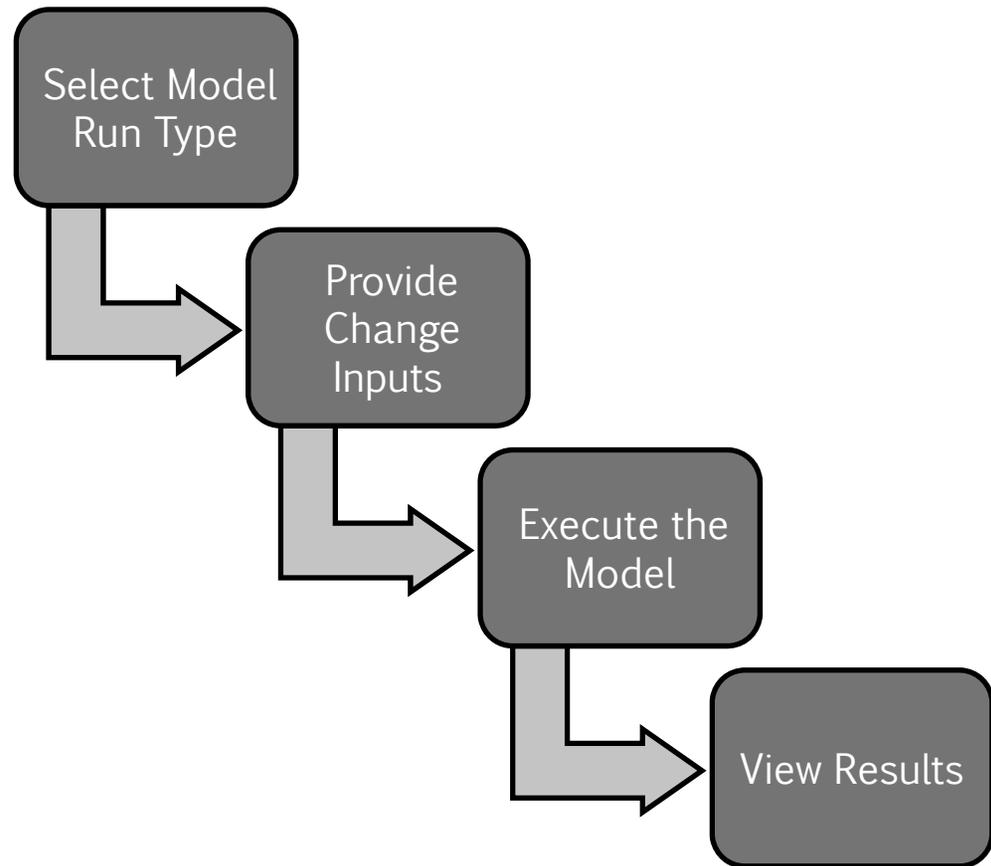
SUSTAIN

(Sustainable Use Scenario Tool for Analysis and Informing Nebraskans)

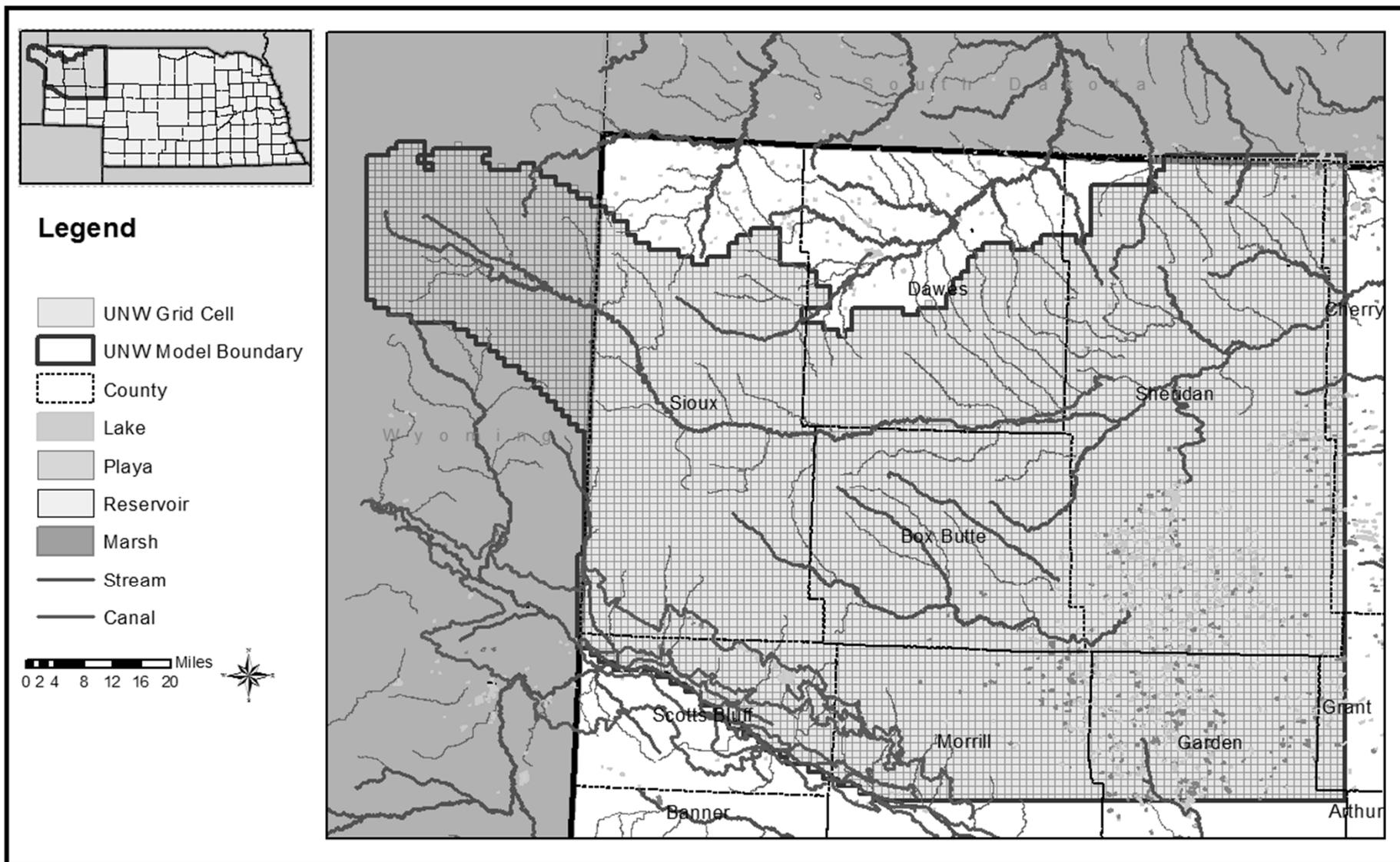


What is SUSTAIN and what does it do?

- Utilizes existing groundwater models
- Improve access to watershed model results (land use, pumping, recharge)
- GUI for model analysis (recharge and pumping changes)
- View results at the county, NRD, or user defined level



UNW Model





SUSTAIN

Live Demo...



Summary

Water Management Uses for SUSTAIN:

Develop Water Budget

- How many irrigated acres are in an area?
- How much pumping occurs in an area?
- Is the pumping in an area more or less than the recharge?

Model Integrated Water Management Scenarios

- Canal recharge projects
- New Wells and Allocations
- Retirements
- Conjunctive management activities

See Water Management Results and Impacts

- Stream Baseflow
- Aquifer Storage Change
- Water Level Difference

Summary

NeDNR Plans for Moving Forward:

- Finalize application
- Document methods and create tutorials for users
- Incorporate additional models
 - Northern Missouri-Tribs Model
 - CeNEB Model
 - COHYST Model
 - Blue Basins Model

Input from potential users is welcome!



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