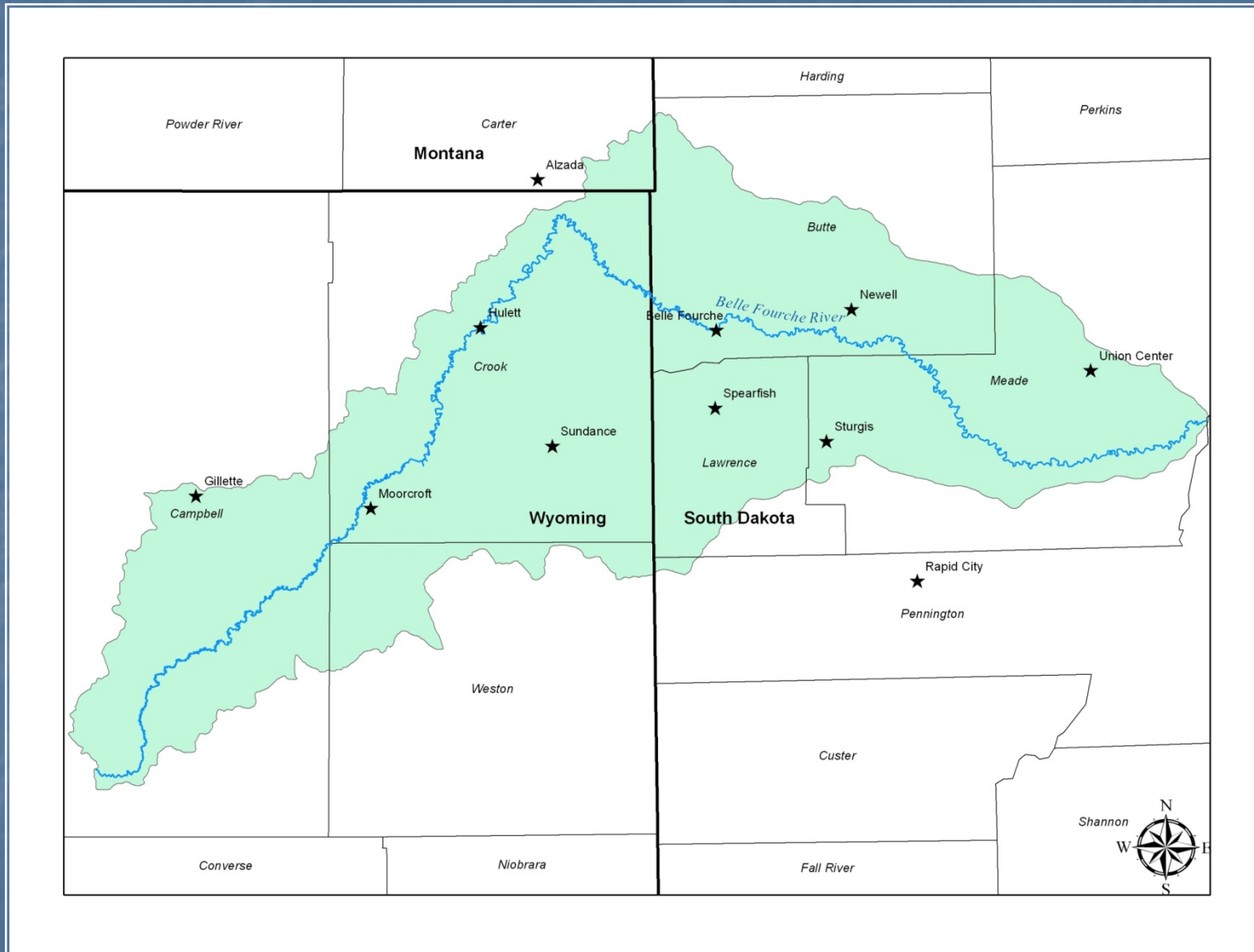


# BELLE FOURCHE RIVER WATERSHED PARTNERSHIP

# Belle Fourche River Watershed

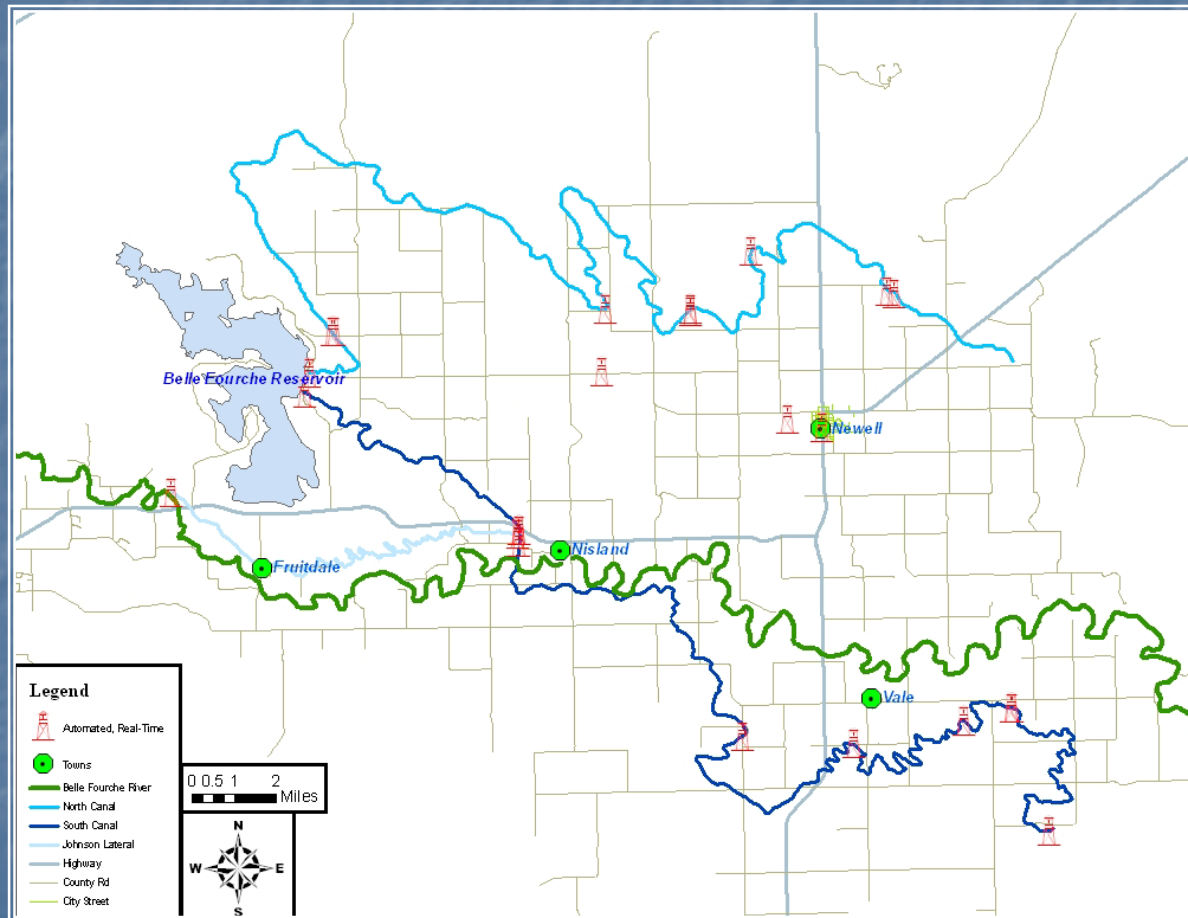


# Belle Fourche Irrigation District Projects

- 28 automated gates
- 25 real-time sites
- 13,000 feet of lining
- 16,144 feet of pipeline
- Upgraded water card order system
- Operational model



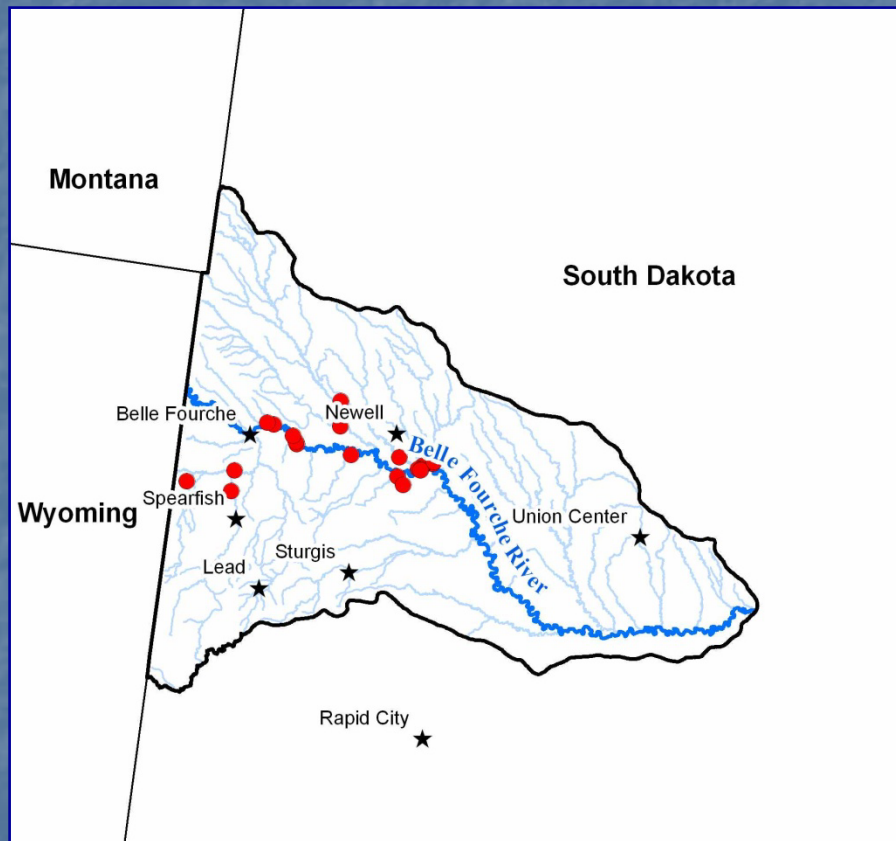
# Belle Fourche Irrigation District Existing Radio Network







# Producer Irrigation Projects



- 34,470 feet of pipeline
- 17 sprinkler systems



# Range Implementation Projects



- 237,749 feet of pipe
- 48 tanks
- 41,723 feet of fence
- 8 wells





# Range Acres Impacted

- Total range acres impacted by Belle Fourche River Watershed Partnership (BFRWP) 271,320
  - Planning on 120,564 acres
  - Implementation projects 200,680 acres (overlap with planning projects)



# Producer Follow-Up



- Monitoring available upon request or need
  - Forage utilization
  - Qualitative photograph points



# Uniqueness of Project



- Pooling resources
- Strengthening relationships between producers and state and federal agencies

- Creating additional conservation and economic opportunities



# NRCS Conservation Innovation Grant Project Overview

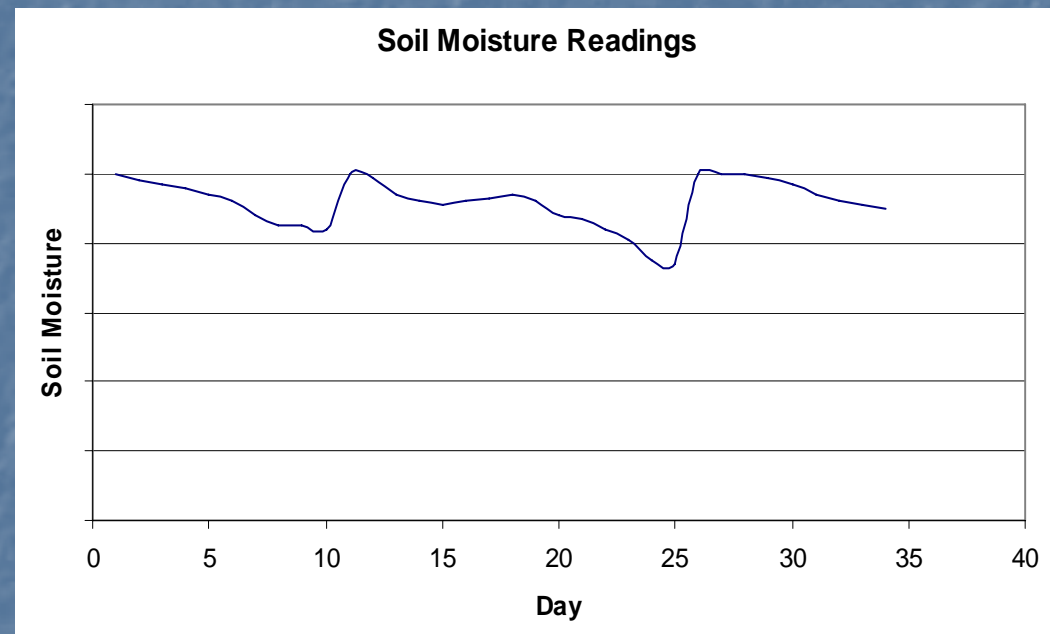
- 3-Year Project
- Components
  - Extensive weather network—installed three weather stations and nine rain gauge sites
  - Web-based irrigation scheduling consultant for individual fields (add ten producers/year)

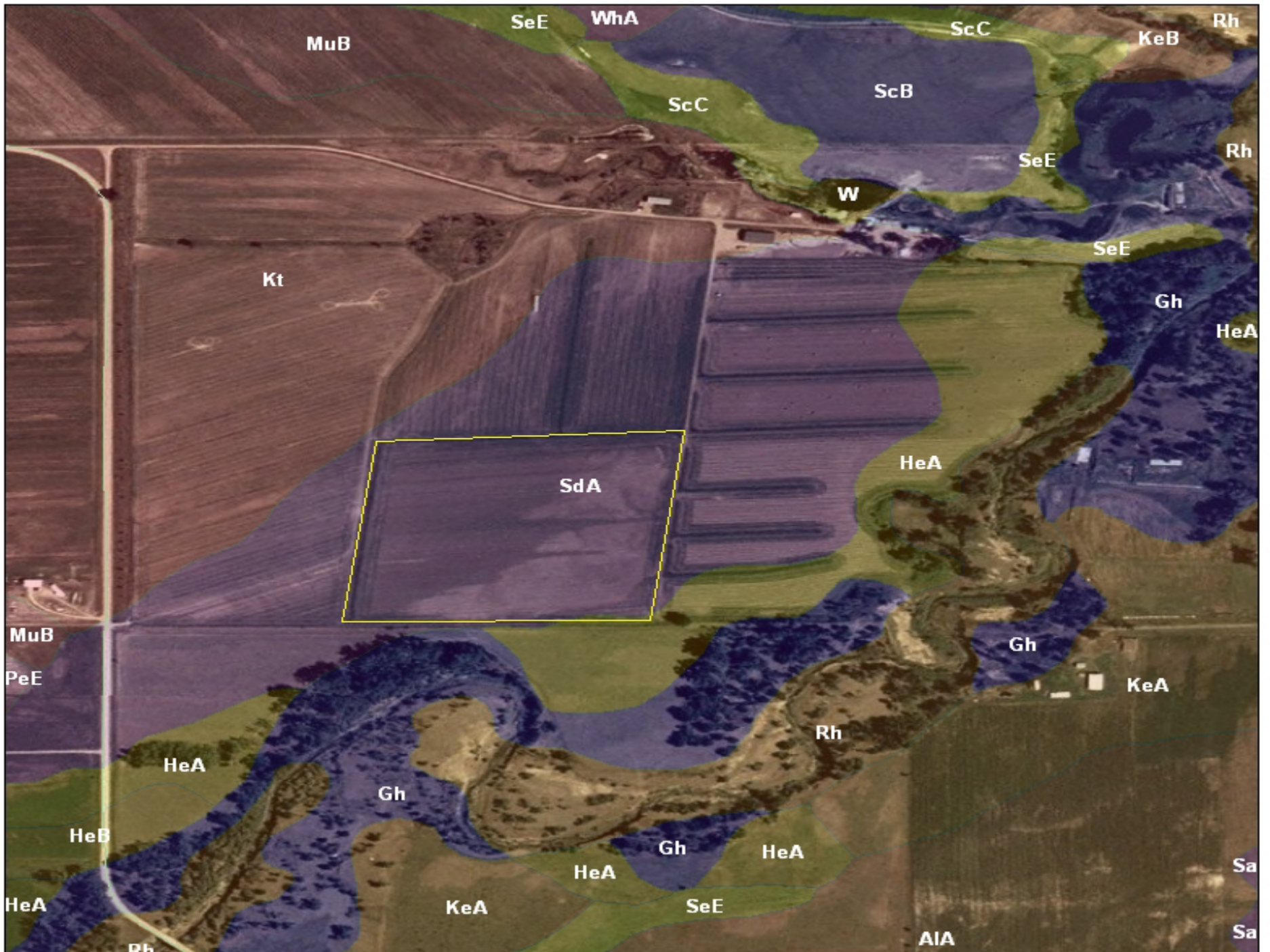
# Water Balance

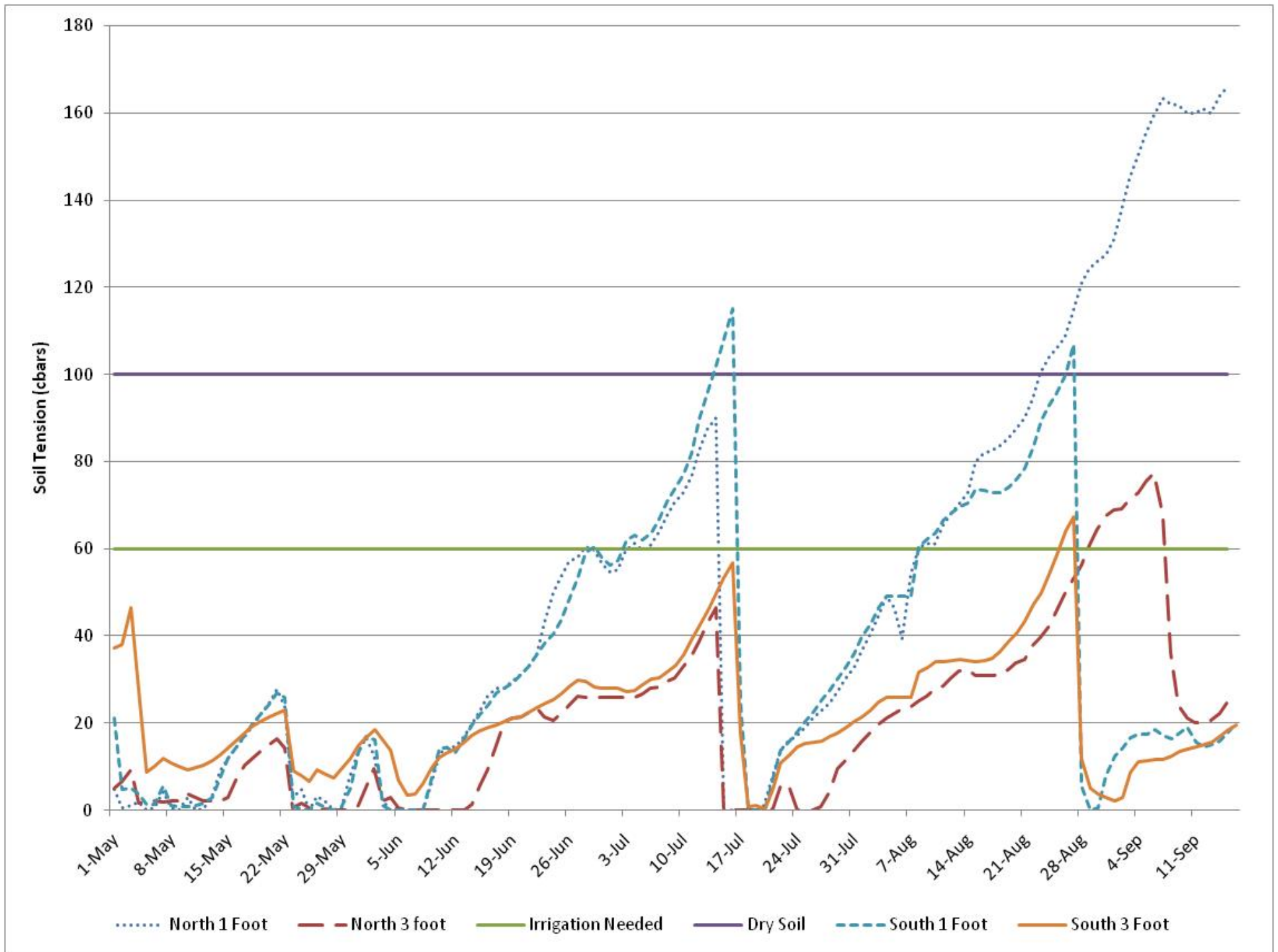
- Water Balance = Current Balance+Rainfall+Irrigation-(ET×Kc×Ka)
- Rainfall—Collected From Installed Rain Gauges
- Irrigation—Entered by the Producer
- Evapotranspiration (ET) Estimates—Data From Installed Weather Instruments Input Into ASCE Penman Monteith Equation
- Kc—Crop Coefficient
- Ka—Plant Available Water Coefficient

# Soil Moisture Sensors

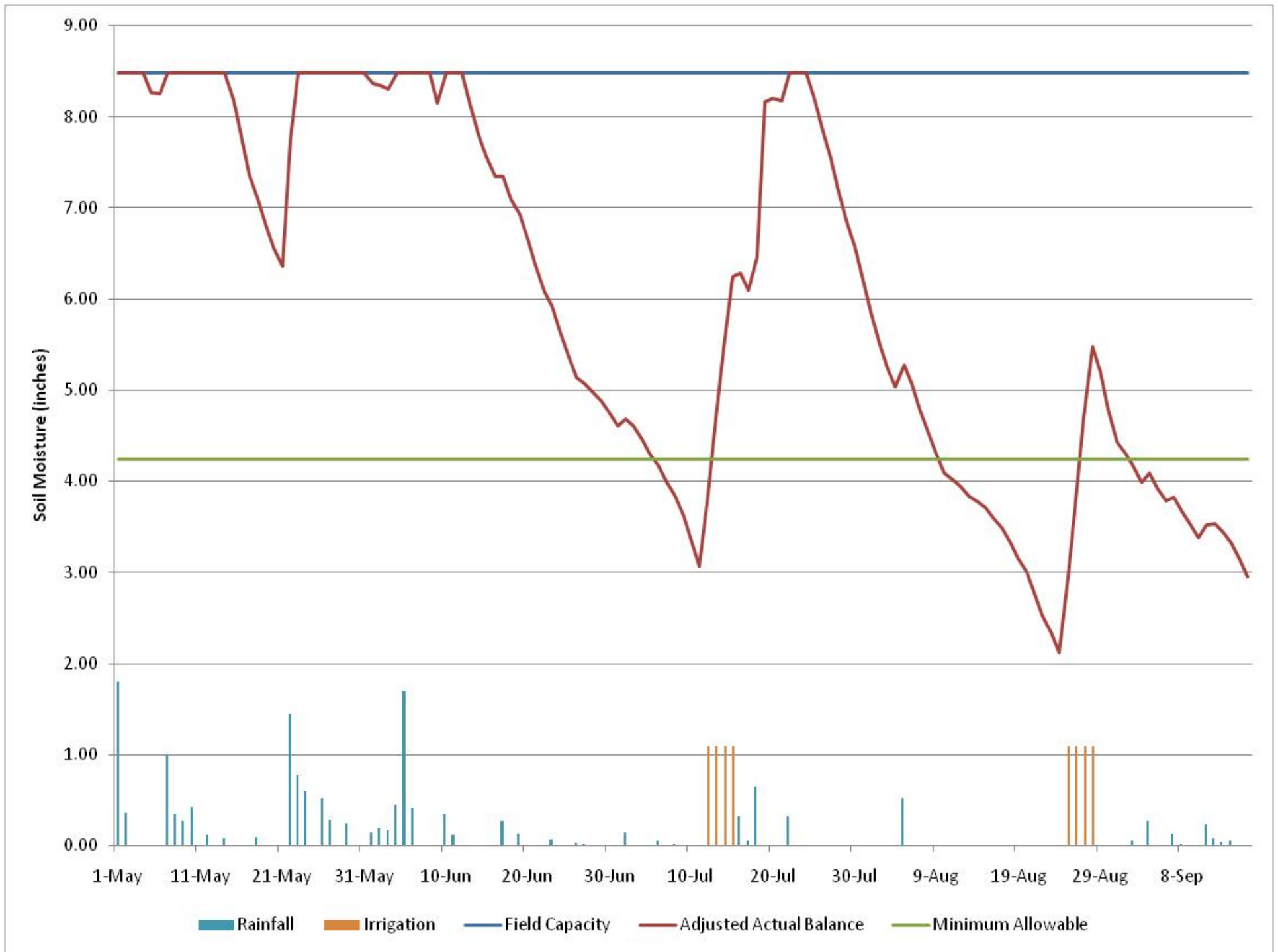
- Project Will Provide Two Per Field









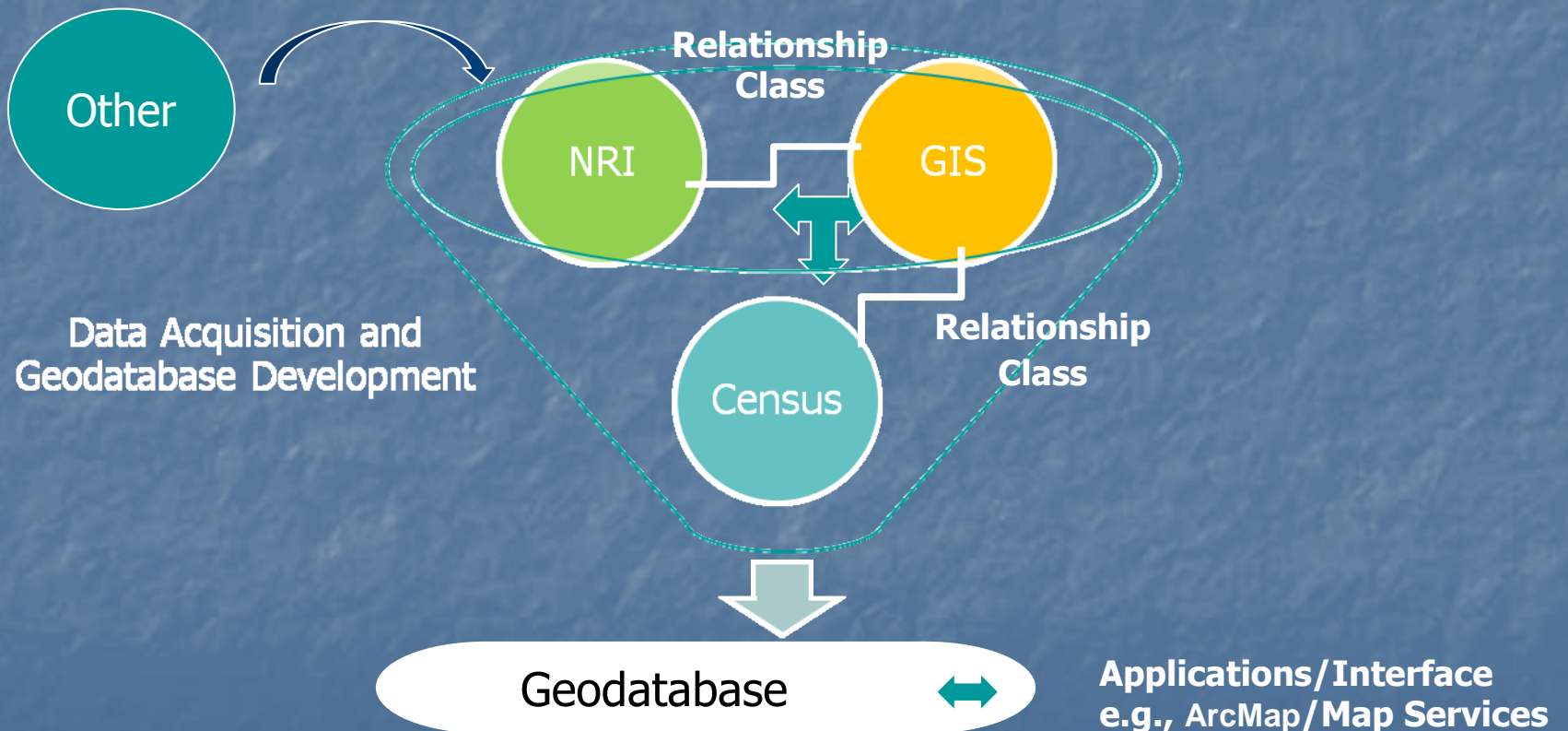


# NRCS Rapid Watershed Assessment

- Rapid Watershed Assessment
  - Compile resource information
  - Identify and prioritize resource concerns
  - Identify best use of conservation implementation
  - Priority funding for NRCS Programs

# Geodatabase

*Challenge to performing a watershed-based assessment is the integration of disparate data models into a common geospatial framework*



# Proposed Implementation Grants

- Agriculture Water Enhancement Program (AWEP)- \$800,000/year Cheyenne and Belle Fourche Watersheds
- Cooperative Conservation Partnership Initiative (CCPI)