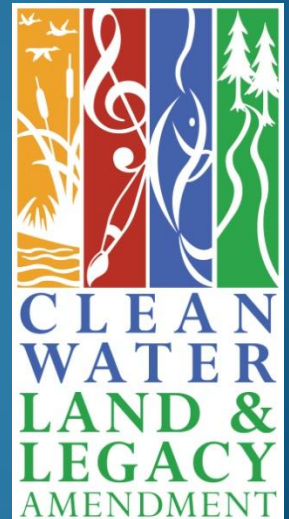
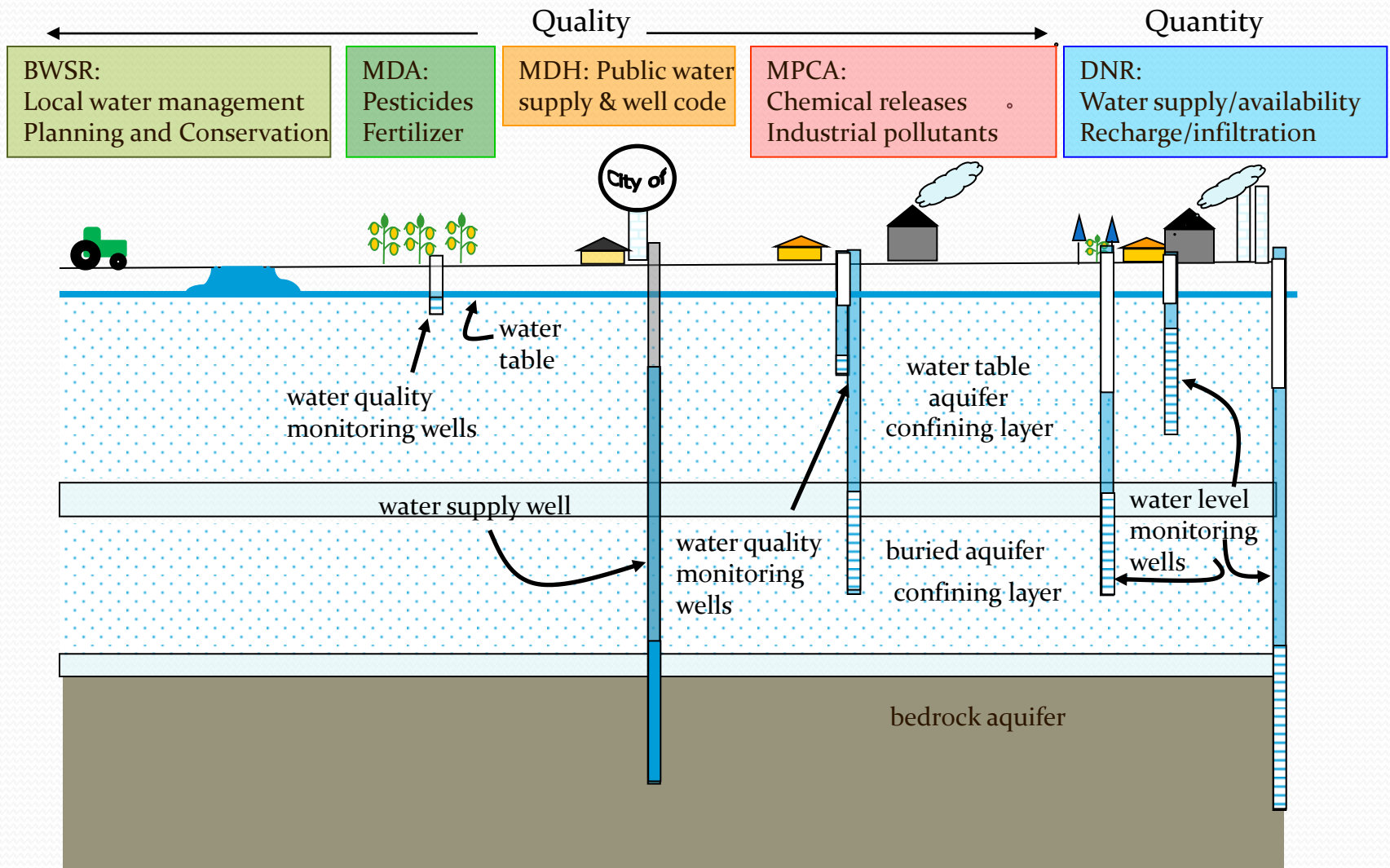


# Minnesota Groundwater Management Areas

Division of Ecological and Water Resources  
Minnesota Department of Natural Resources



# Groundwater: State Agency Roles



# Minnesota Water Law

## DNR Responsibilities



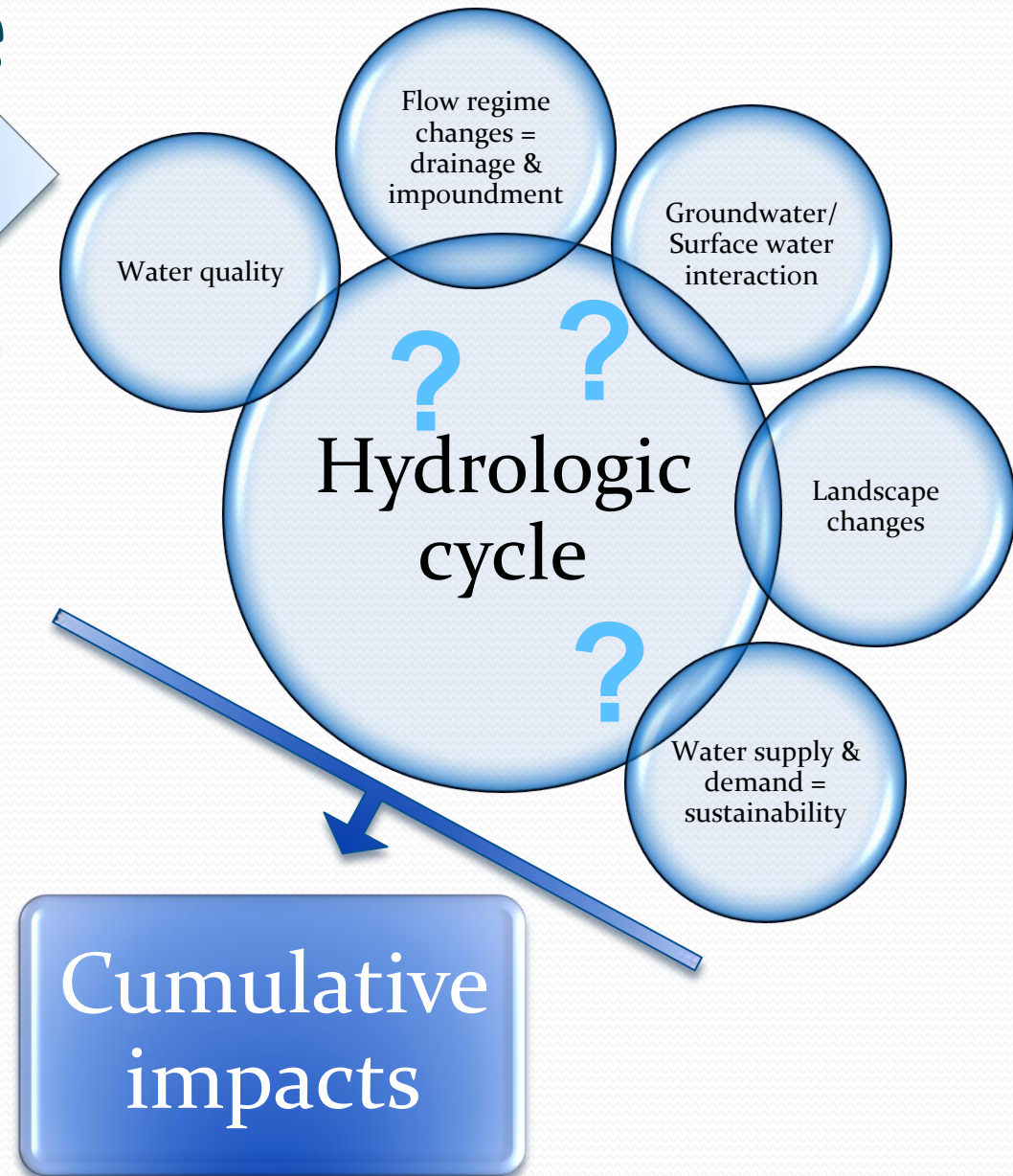
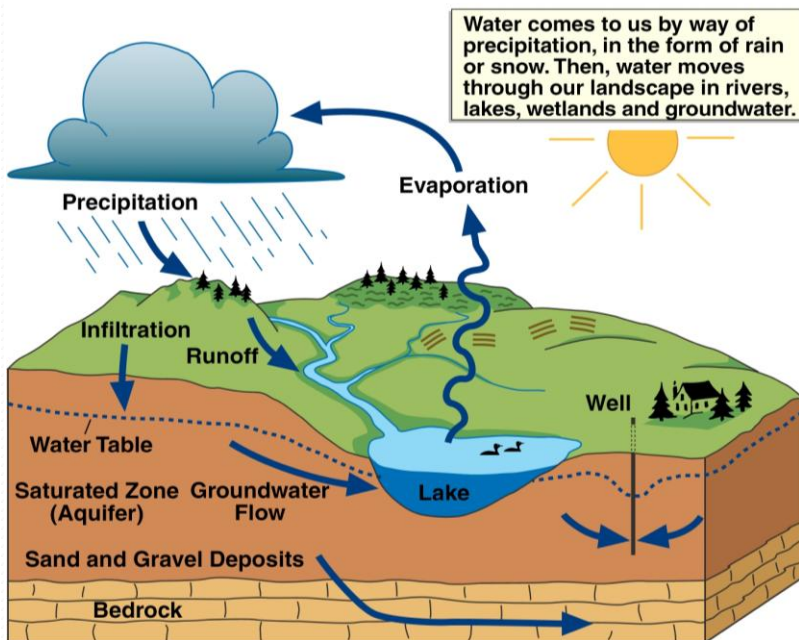
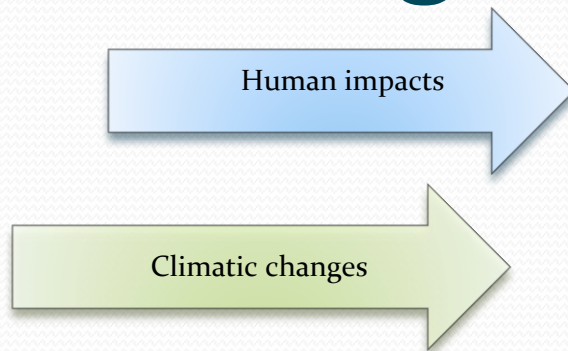
- Riparian Rights
- Water Appropriation Permits
- Priorities for water use
  - Domestic water supplies and power production w/ contingency plan
  - Consumptive use of less than 10,000 gal/day
  - Agriculture: irrigation and processing
  - Power production w/o contingency
  - Other industrial uses
  - Nonessential uses

# Historic Approach

- Point based
- Reactionary



# Our Challenge



# Watershed Approach

- Holistic approach to management
- Account for all uses

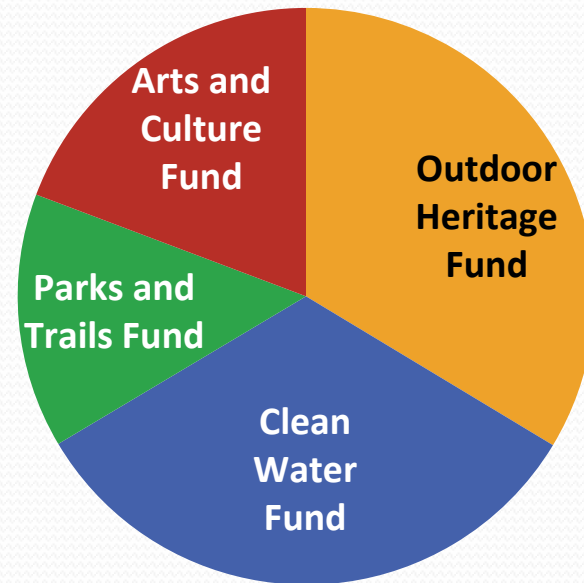


# Clean Water Land & Legacy Amendment



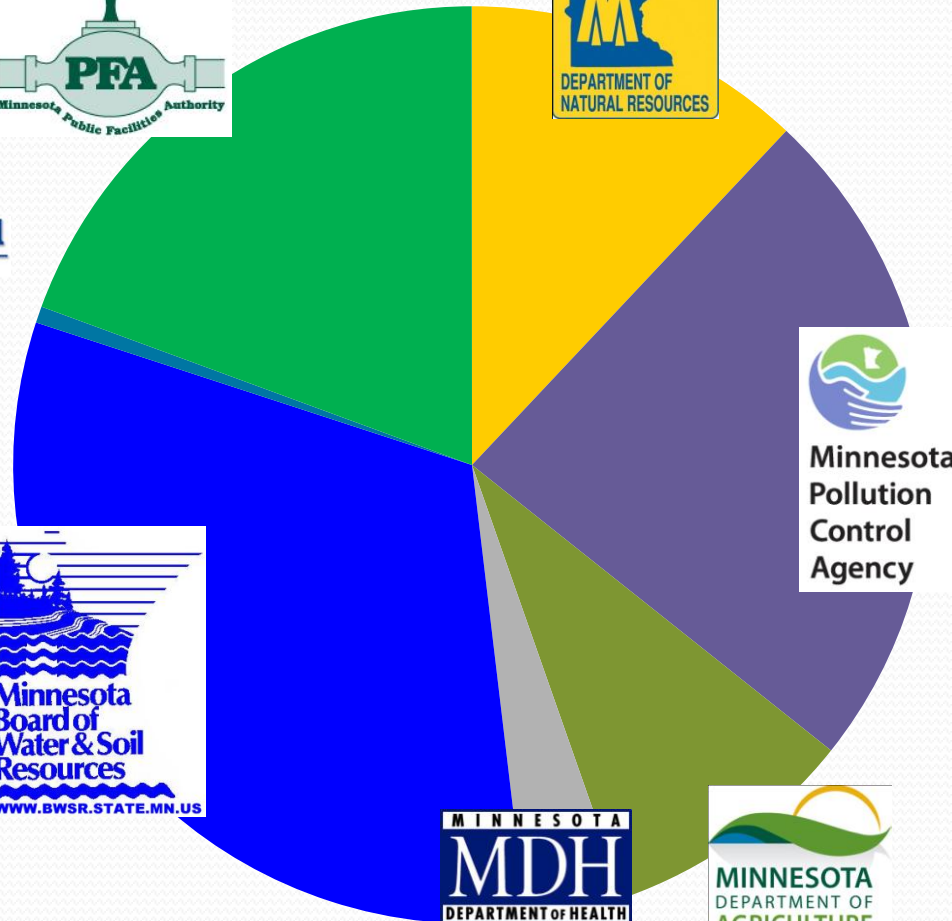
**CLEAN  
WATER  
LAND &  
LEGACY  
AMENDMENT**

**All Legacy Funds – FY 2012 - 2013  
\$549,791,000**



# FY 2012-13 Clean Water Fund

179.43 Million – All Agencies



# Water Sustainability Programs

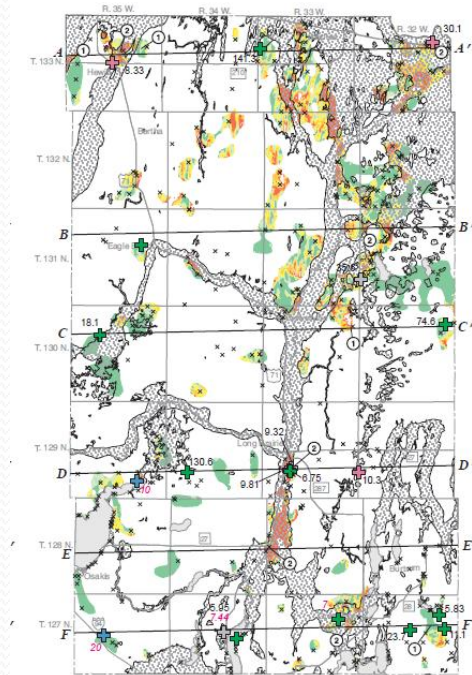


FIGURE 6. Pollution sensitivity of the H1 buried sand aquifer.

- Mapping
- Monitoring
- Managing



## Permit Application for Appropriation of Waters of the State IRRIGATION

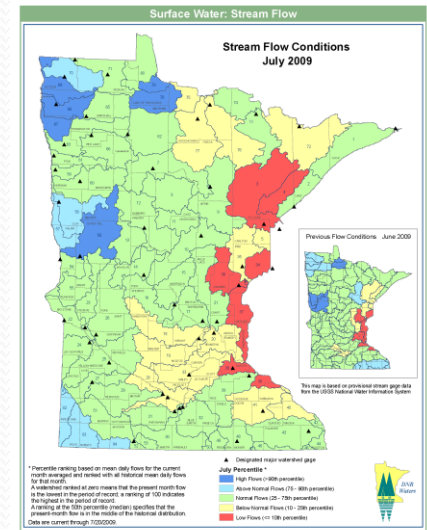
**WARNING:** ALL INFORMATION AND SUPPORTING DOCUMENTS SUBMITTED AS PART OF THIS APPLICATION BECOME PUBLIC INFORMATION. Omission of any data requested will delay the processing of your application and may result in its denial.

**WHO APPLIES:** Any individual, agency, corporation, or entity appropriating in excess of 10,000 gallons/day and/or 1 million gallons/year must obtain a Water Appropriation Permit from the Department of Natural Resources as prescribed by Minnesota Statutes, Chapter 103A and Minnesota Rules 615.0000-615.0810.

**PROCEEDING WITHOUT A PERMIT:** Any appropriation in excess of the above stated amounts without a permit constitutes a misdemeanor. Note: Other federal, state, or local permits or approvals may also be required which are the responsibility of the applicant to obtain.

### Application Instructions

Read ALL instructions carefully before filing out the application. Please type or print clearly.



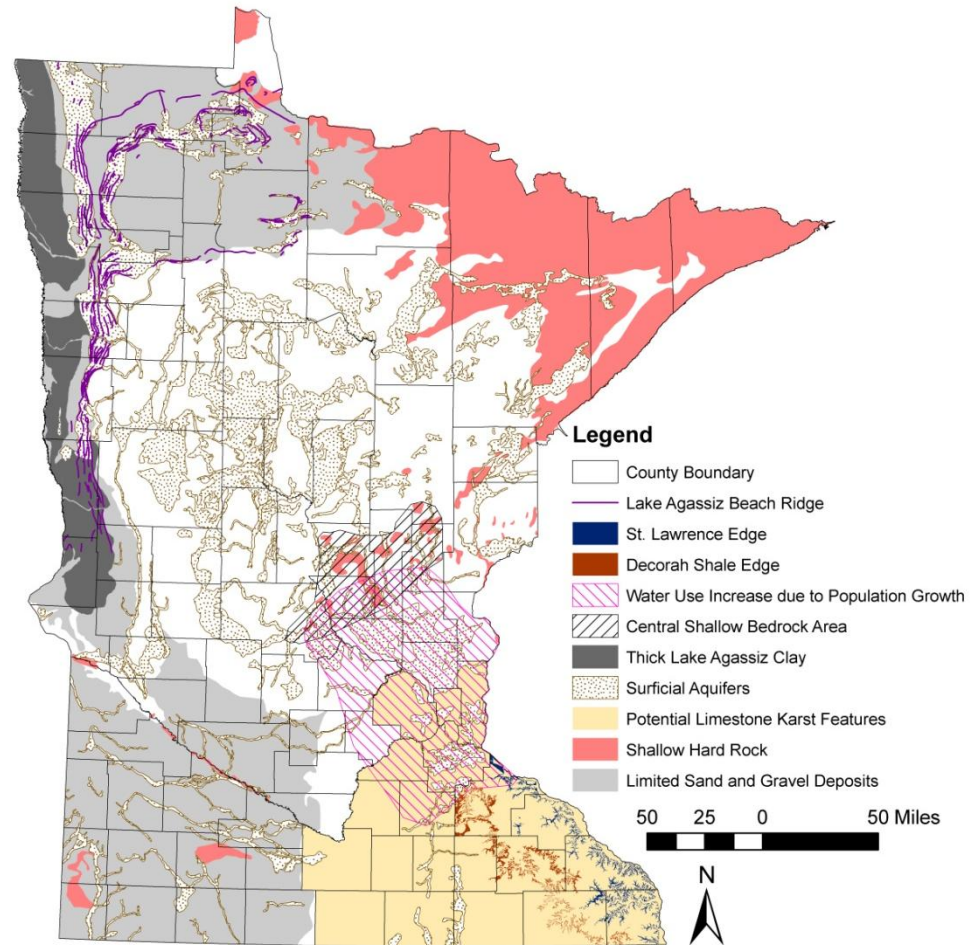
# Tools to Manage the Resource

- Resource Protection Laws
- Permit Requirements
- MN Statute 103G.287 Groundwater Management Areas
  - The area must be large enough that the interrelationship of geohydrologic and climatic factors can be defined and managed
  - Priority to areas of increasing water use, current or future water use conflict, water quality, TMDL, and local interest

# Identifying Areas of Concern

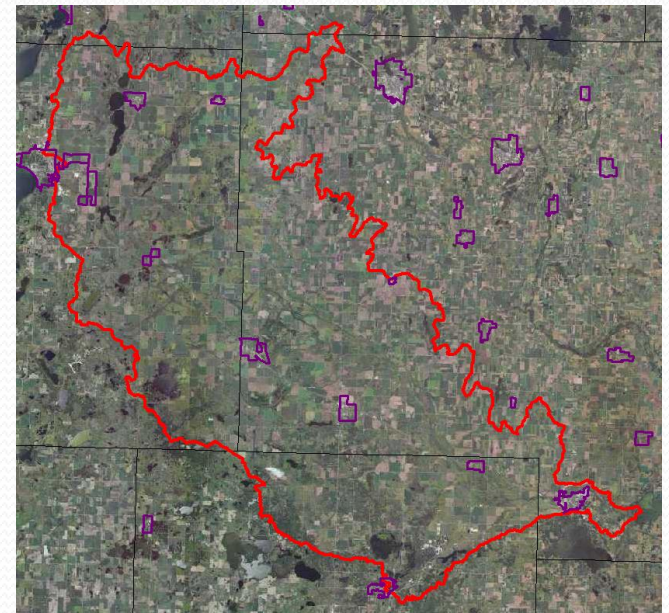
- Reoccurring problem areas around the state
- Matrix of environmental, social and economic issues
- Working with sister agencies to prioritize areas

Groundwater Supply Areas of Concern



# Groundwater Management Area Scoping

- Clear definition of issues
- Engage local partners
- Compile existing data
- Upgrade gw/sw monitoring network in area
- Model aquifer characteristics
- Determine local management goals
- Outline deliverable products



# Management Goals

- Local level water use management with agency oversight when needed
  - Comprehensive characterization of gw/sw system
  - We provide the data, technical information, tools and guidance
  - Local level management decisions for land use, permitting and use conflict resolution
  - Collaborative agency oversight



Thank you