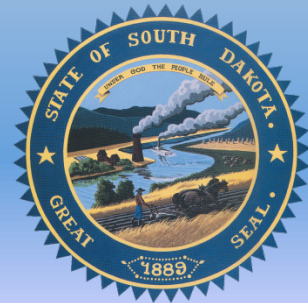


Ground and Surface Water Management Strategies In South Dakota

Mark Rath

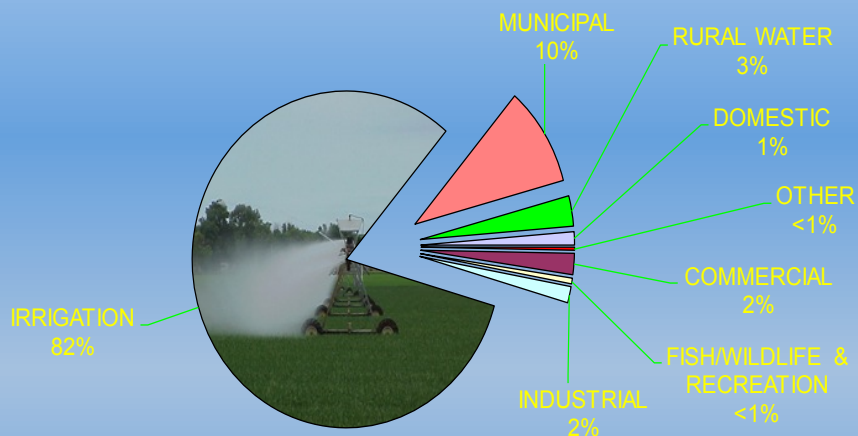
SD Dept of Environment and Natural Resources



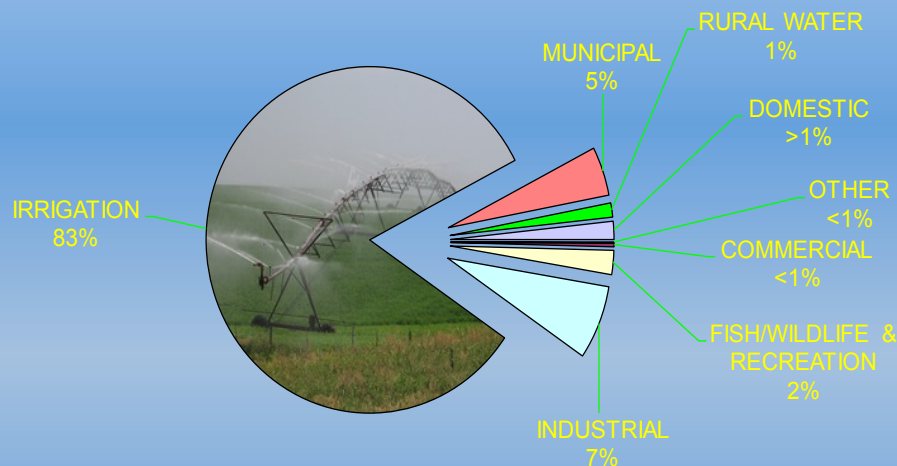
Water Appropriations by Type of Use in South Dakota

(based upon diversion rate)

Ground Water

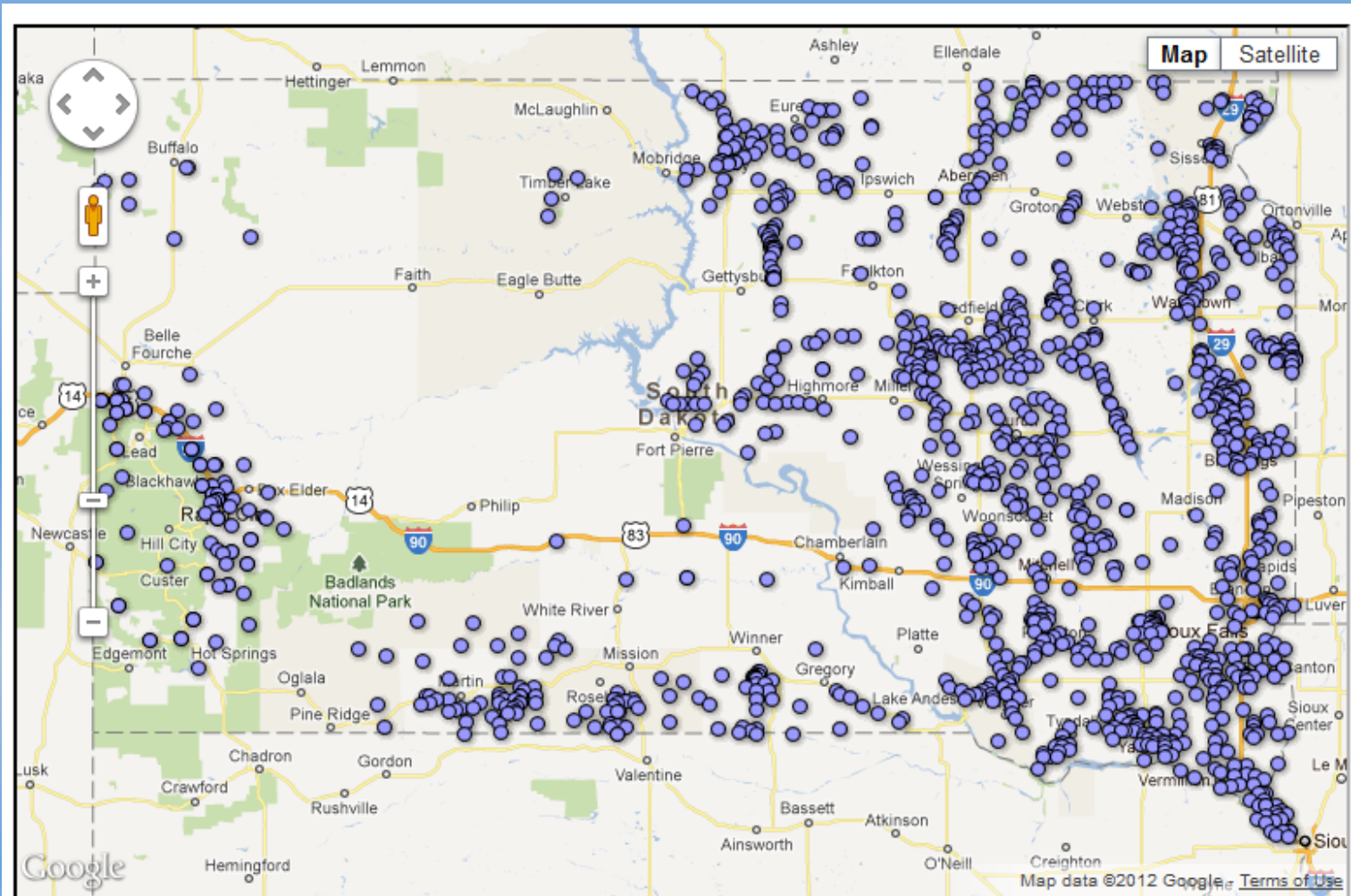


Surface Water



Tools for determining water availability

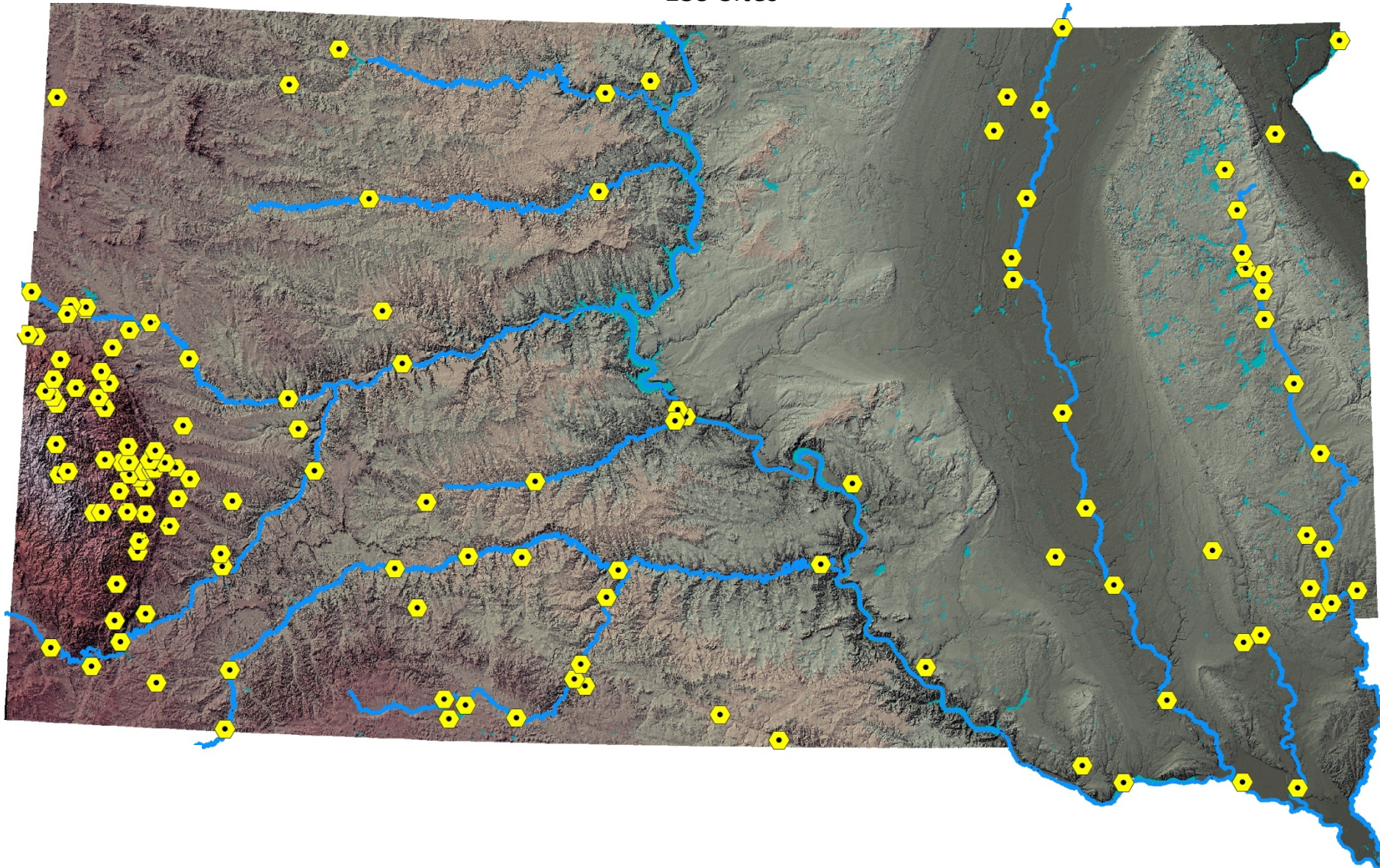
Approximately 1,600 wells in Observation Well Network



Tools for determining water availability

Stream Flow Gaging Stations

159 Sites



Tools for determining water availability

Hydrology studies are available that map ground water resources in South Dakota and provide data for estimating the average annual recharge of aquifers.

Annual Irrigation Water Use Questionnaire

2006 Water Management Board Irrigation Questionnaire
Please fill out and return before December 1, 2006

REMEMBER! Return of this questionnaire is required whether or not you irrigated this year.
Return the completed form(s) to the Water Rights Program at 522 E Capitol, Pierre, SD 57501-3181. (605) 773-3352
or send your form(s) electronically over the internet at <https://www.state.sd.us/forms/secure/forms/E040506-k3.pdf>

Permit No. 2284-3

DONOVAN GOEHRING, OPERATOR
28326 BROADWAY ST
DELMONT SD 57330 5922

Any address/ownership corrections?
Telephone No. _____

1. Did you irrigate in 2006? **yes ☒ **no ☐
If yes, 122.2 acres were irrigated out of the 122.00 acres covered by Permit No. 2284-3

**If no, check reason(s) for not irrigating:
sufficient moisture ☐ no water available ☐
system not constructed ☐ use abandoned ☐
enrolled in CRP ☐ through what year? _____
other ☐ please explain in the comment box: _____

2. If your answer to question No. 1 is "no," you are done! If you answered "yes," please complete Nos. 3, 4 & 5.

3. Did you apply chemicals or fertilizer through the system in 2006? yes ☒ no ☐

4. If more than one water source is listed below, circle each source used: A. GROUNDWATER

5. Provide your water use on the back of this form.

Comment Box

Office use only

RECEIVED
JAN 11 2007
WATER RIGHTS
PROGRAM

1 square mile

Acresage permitted for irrigation under No. 2284-3 (see above section may for help reading legal descriptions)

sec 19-2098N-862W, NE1/4NW1/4 - 25.00 acres
sec 19-2098N-862W, SE1/4NW1/4 - 25.00 acres
sec 19-2098N-862W, NW1/4NE1/4 - 32.00 acres
sec 19-2098N-862W, SW1/4NE1/4 - 32.00 acres

Please provide your 2006 water use to irrigate the above acreage on the REVERSE side of this form.

MONTH IRRIGATED	CROP TYPE	NUMBER OF ACRES IRRIGATED	PUMP RATE IN GALLONS PER MINUTE	DAYS PER MONTH WATER WAS APPLIED	AVERAGE HOURS PER DAY
MARCH					
APRIL					
MAY					
JUNE	Corn Soybeans	93 27	800 800	10 10	24 24
JULY	Corn Soybeans	93 27	800 800	25 25	24 24
AUGUST	Corn Soybeans	93 27	800 800	25 25	24 24
SEPTEMBER	Corn Soybeans	93 27	800 800	6 6	24 24
OCTOBER					

IF MORE ROOM IS NEEDED, PLEASE INCLUDE THE INFORMATION ON A BLANK SHEET OF PAPER

Tools for determining water availability

and when all else fails

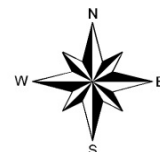
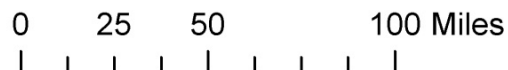
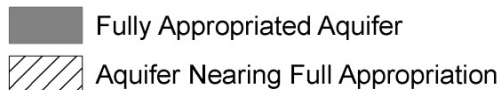
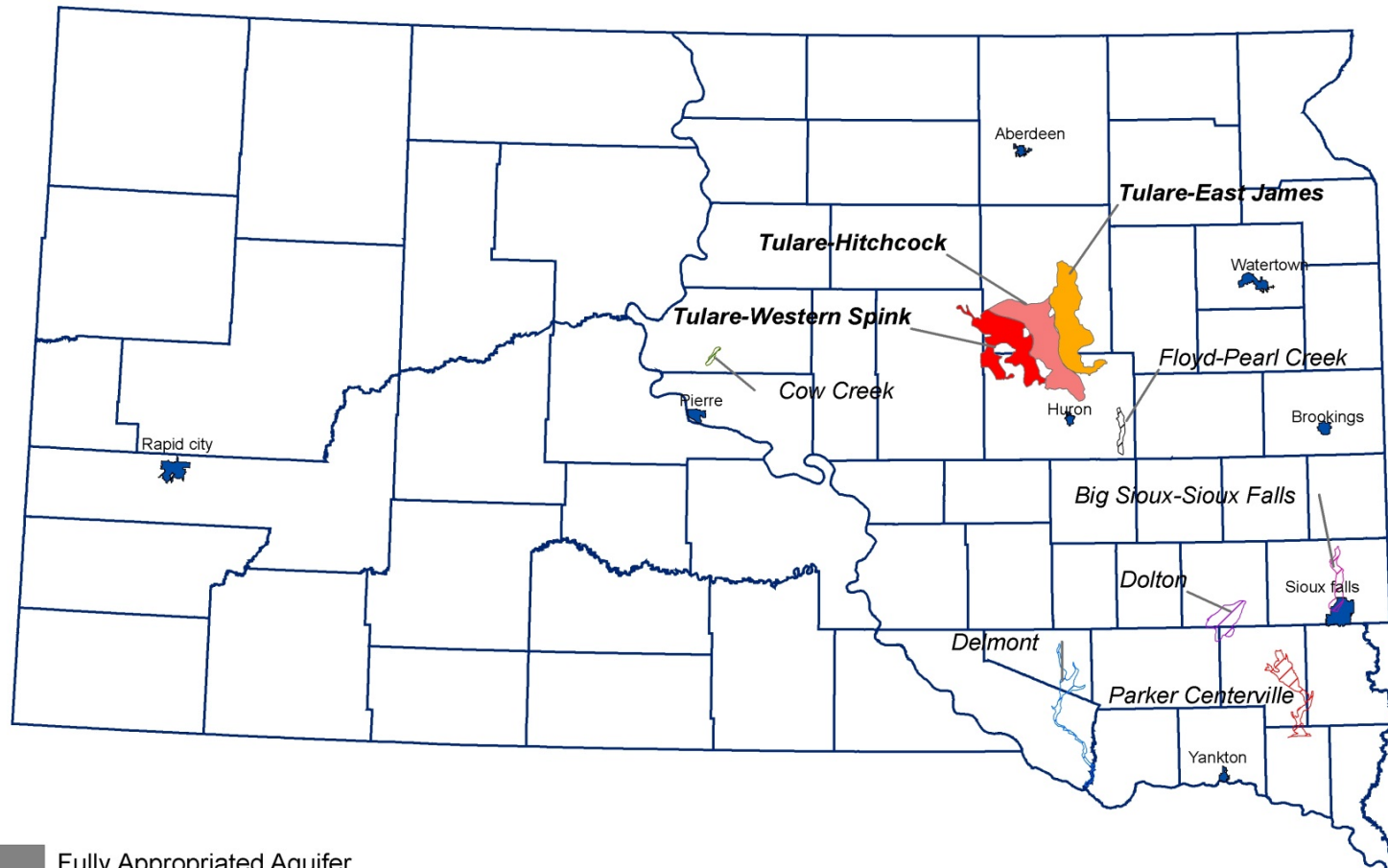


No Mining of Groundwater

South Dakota Codified Law 46-6-3.1

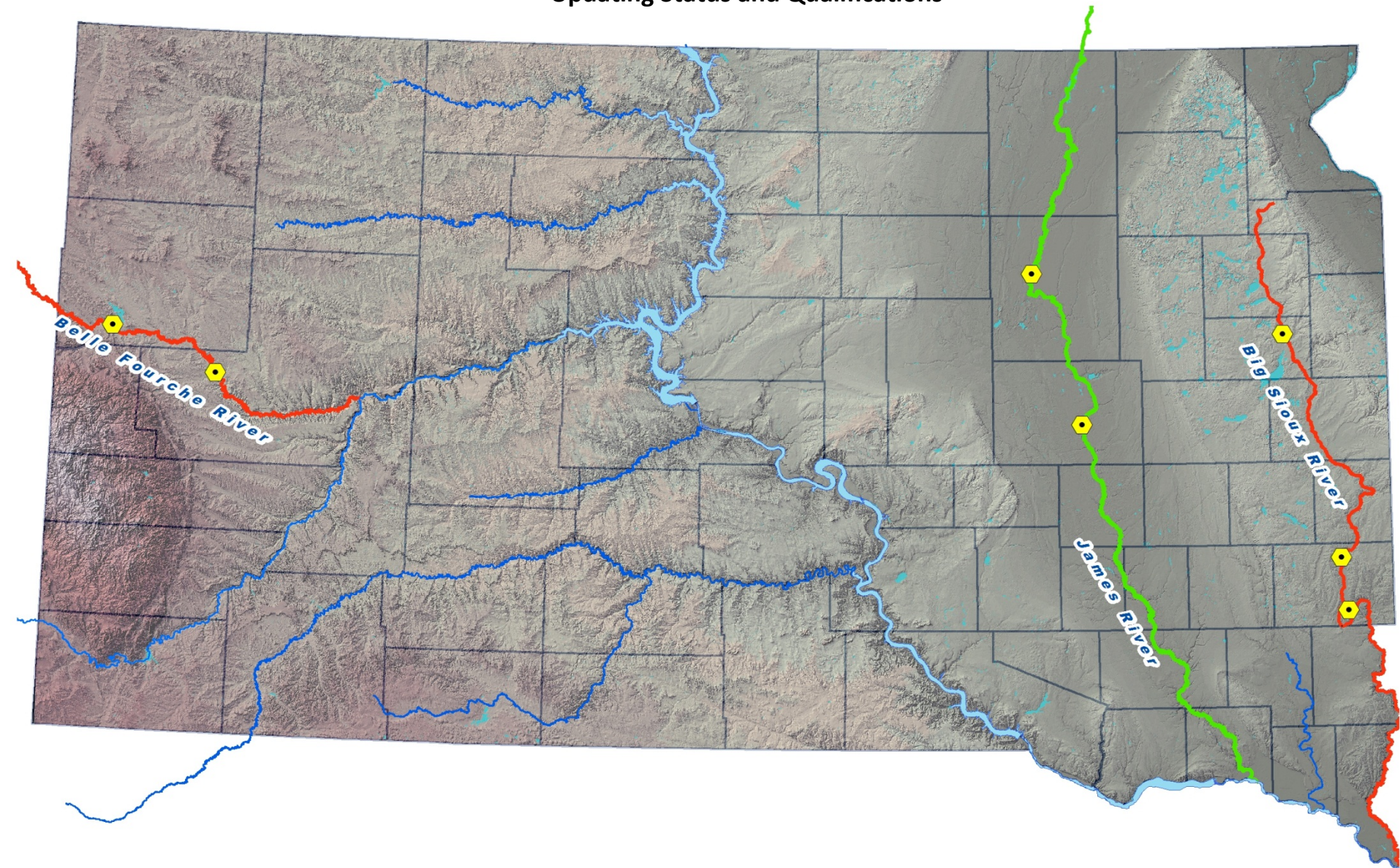
No application to appropriate groundwater may be approved if, according to the **best information reasonably available**, it is probable that the quantity of water withdrawn annually from a groundwater source will **exceed the quantity of the average estimated annual recharge** of water to the groundwater source.

FULLY APPROPRIATED AQUIFERS AND AQUIFERS NEARING FULL APPROPRIATION



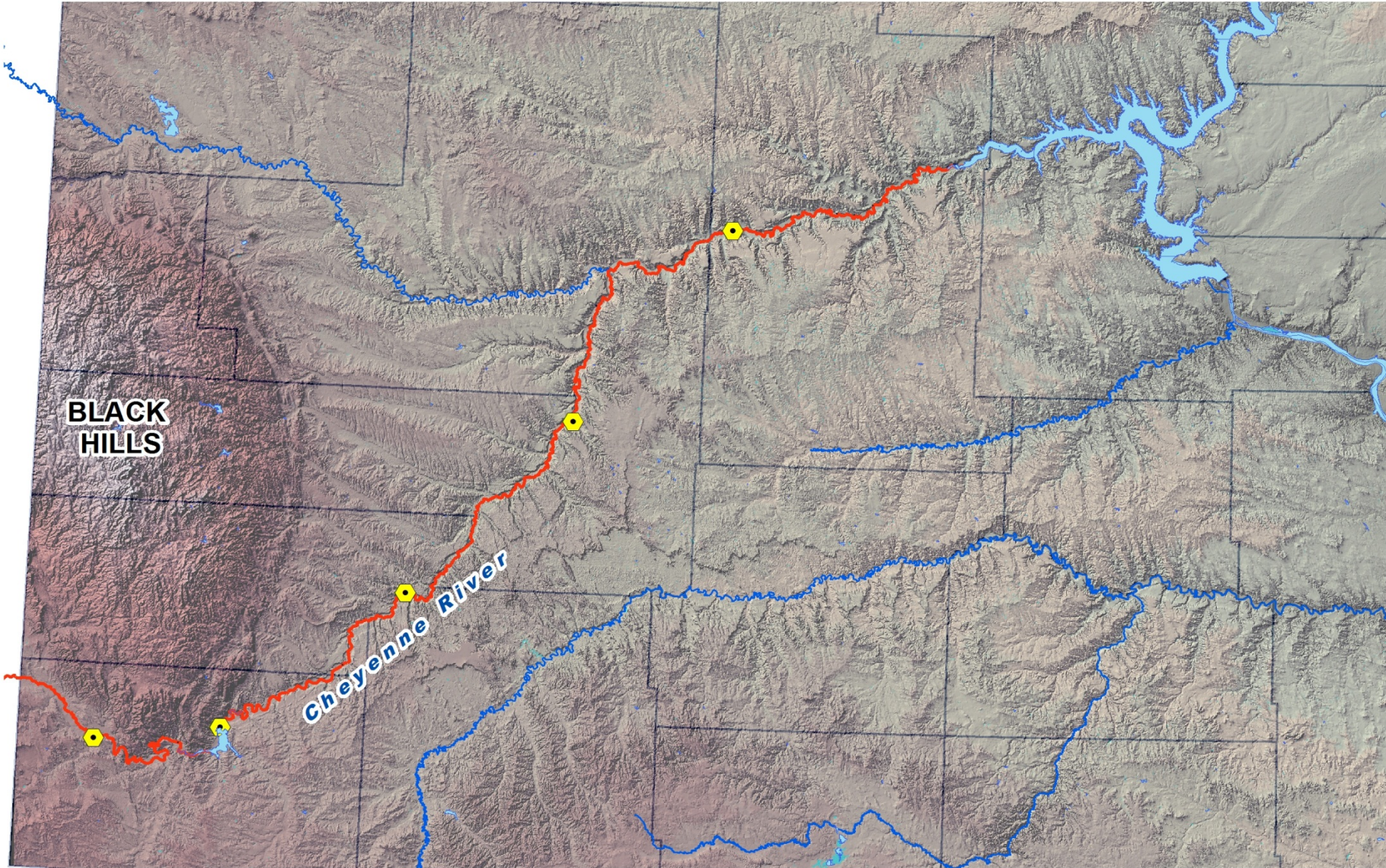
Surface Water Management

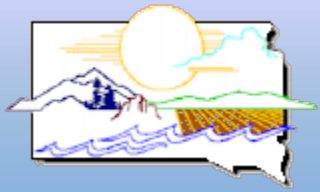
Updating Status and Qualifications



Surface Water Management

More Active Management





Thank You

