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## JOBZ and the Environment<sup>1</sup>

The Clean Water Cabinet and Environmental Quality Board believe that an upfront understanding of the environmental implications of proposed developments can head off last minute complications and delays. In that spirit, the CWC and EQB offer this package of information about JOBZ<sup>2</sup> and Minnesota's water resources to aid those involved in economic development planning.

The goal is to increase the awareness of possible water limitations within various JOBZ. Geologic and hydrogeologic differences result in the availability of water and contamination susceptibility of ground water to vary widely throughout Minnesota. Although mainly limited to information of regional resolution, the maps cross reference JOBZ with information on water resources. The idea is to help people plan for economic development in a manner that protects or restores the long-term quality and availability of Minnesota's surface and ground waters.

### **1. Ground water availability (map)**

This map gives a preliminary indication of those JOBZ that could encounter a lack of abundant water supplies. Within Minnesota, types and properties of aquifers are primarily related to the local geologic conditions. Minnesota has six ground water provinces based on bedrock and glacial geology. Ground water sources and the availability of water for drinking and industrial or agricultural uses are similar within each province.<sup>3</sup> The Department of Natural Resources encourages JOBZ planners to contact it whenever significant water using developments are contemplated.

#### General Groundwater Availability by Source

<b>Province</b>	<b>Surficial sands</b>	<b>Buried sands</b>	<b>Bedrock</b>
1. Metro	Moderate	Moderate	Good
2. South-Central	Limited	Moderate	Good
3. Southeastern	Limited	Limited	Good
4. Central	Good	Moderate	Limited
5. Western	Moderate	Limited	Limited
6. Arrowhead	Limited	Limited	Limited

## **2. TMDL – Impaired waters**

### **(map)**

This map illustrates JOBZ near lakes and streams designated as impaired in 2004.<sup>4</sup> Development in these zones may face restrictions due to the types of pollutants already nearing or exceeding designated levels. As mandated by the federal Clean Water Act, every two years the Minnesota Pollution Control Agency creates a list of waters that no longer meet the standards for their designated purpose – otherwise referred to as “impaired waters.” Total maximum daily load or TMDL studies identify both point and non-point sources of each pollutant that contributes to the impairment of these waters and necessary reductions by these sources in order to meet water quality standards. The TMDL study also may restrict any new discharges of the pollutant of concern into that impaired water. The Pollution Control Agency has posted interactive maps on JOBZ and impaired waters that allow one to focus on the information available at a particular location. (website to come) The Pollution Control Agency encourages JOBZ planners to contact the Positively Minnesota BizNice Help desk at 1-888-234-5520 whenever developments are contemplated in or near impaired waters.

## **3. Susceptibility to contamination**

### **(map)**

This map shows JOBZ located in areas of medium to high ground water contamination susceptibility. Ground water contamination susceptibility analysis focuses on four parameters: aquifer material, recharge potential, soil material and vadose zone material.<sup>5</sup> The Pollution Control Agency urges JOBZ planners to check with it and the local soil and water conservation district or watershed district on how to reduce the risk of ground water contamination associated with developments in sensitive areas.

## **4. County atlas/regional hydrologic assessment**

### **(map)**

This map highlights JOBZ which are located in counties and regions with completed geologic and ground water resource studies. These studies include an analysis of geologic near-surface deposits, bedrock, ground water flow and chemistry, special conditions such as Karst, and ground water sensitivity to pollution.<sup>6</sup> The regional studies provide information similar to that found in county atlases, but cover much larger areas (incorporating four to nine counties) with more general information. The Department of Natural Resources and Minnesota Geological Survey urge JOBZ planners to contact them and the affected county to learn about the information available in areas covered by these studies.

### **Footnotes**

<sup>1</sup> Sara Bertelsen and John Wells, Minnesota Environmental Quality Board

<sup>2</sup> The JOBZ program was created to stimulate economic development activity in distressed areas of Minnesota by providing local and state tax exemptions. It also provides an employment tax credit for high-paying jobs. ( <http://www.deed.state.mn.us/bizdev/jobz.htmf>)

<sup>3</sup> <http://www.dnr.state.mn.us/groundwater/provinces/index.html>

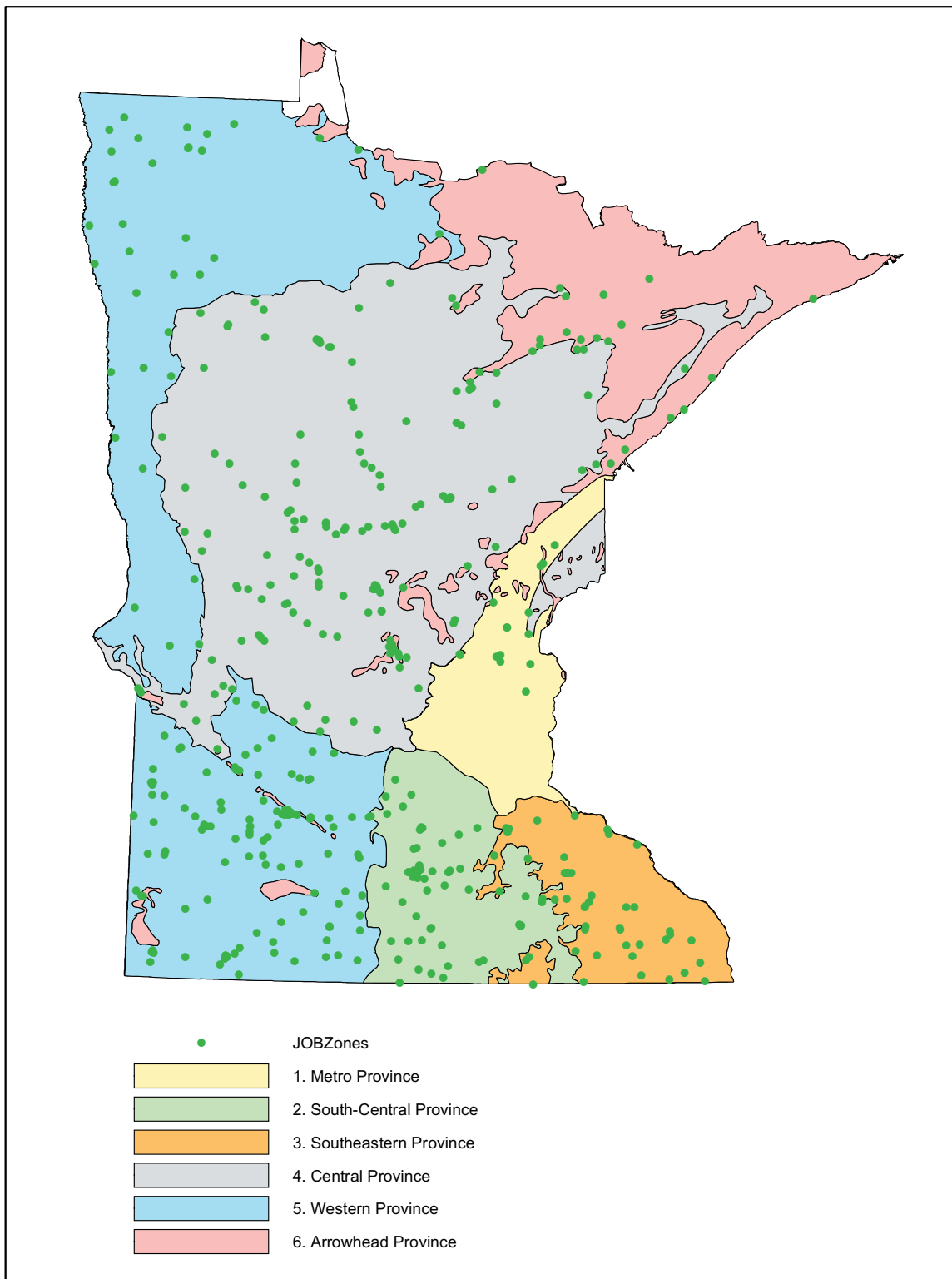
<sup>4</sup> <http://www.pca.state.mn.us/water/tmdl.html>

<sup>5</sup> [http://www.dnr.state.mn.us/waters/groundwater\\_section/mapping/sensitivity.html#references](http://www.dnr.state.mn.us/waters/groundwater_section/mapping/sensitivity.html#references)

<sup>6</sup> [http://www.dnr.state.mn.us/waters/groundwater\\_section/mapping/index.html](http://www.dnr.state.mn.us/waters/groundwater_section/mapping/index.html)

# JOBZones and Ground Water Provinces\*

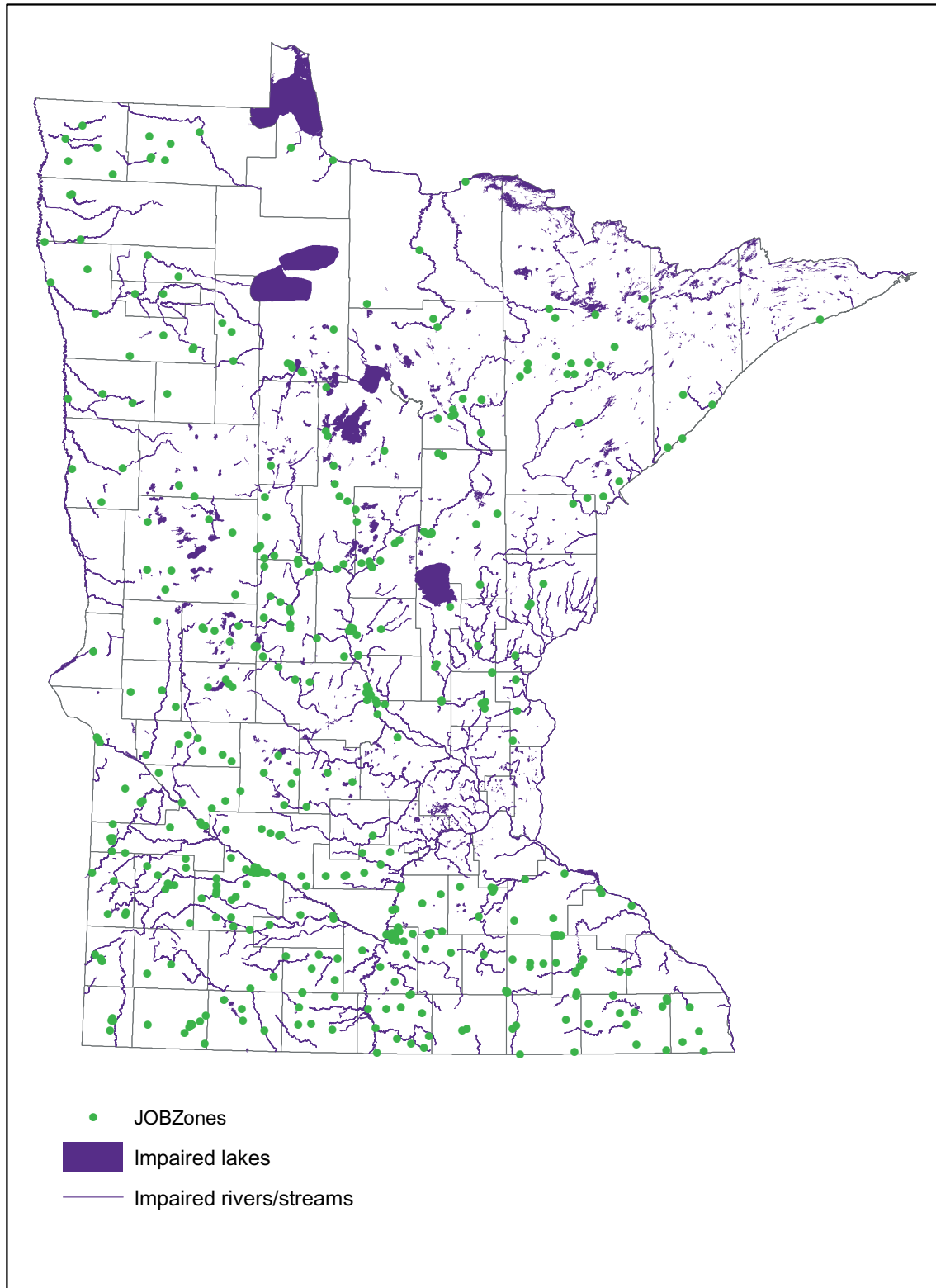
Environmental Quality Board, 2004



\* Department of Natural Resources, 2001

# JOBZones and 2004 Impaired Waters\*

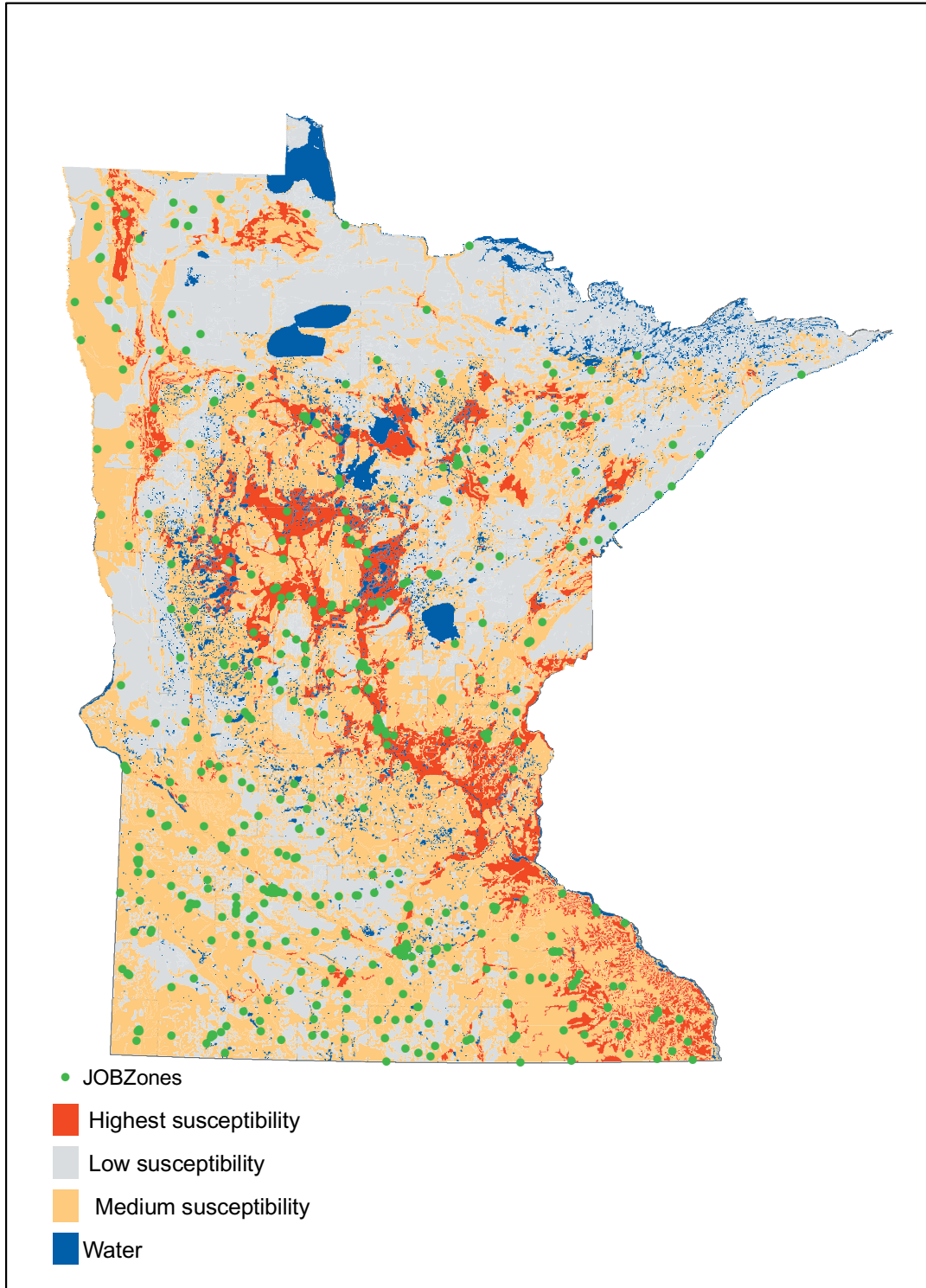
Environmental Quality Board, 2004



\* Pollution Control Agency, 2004

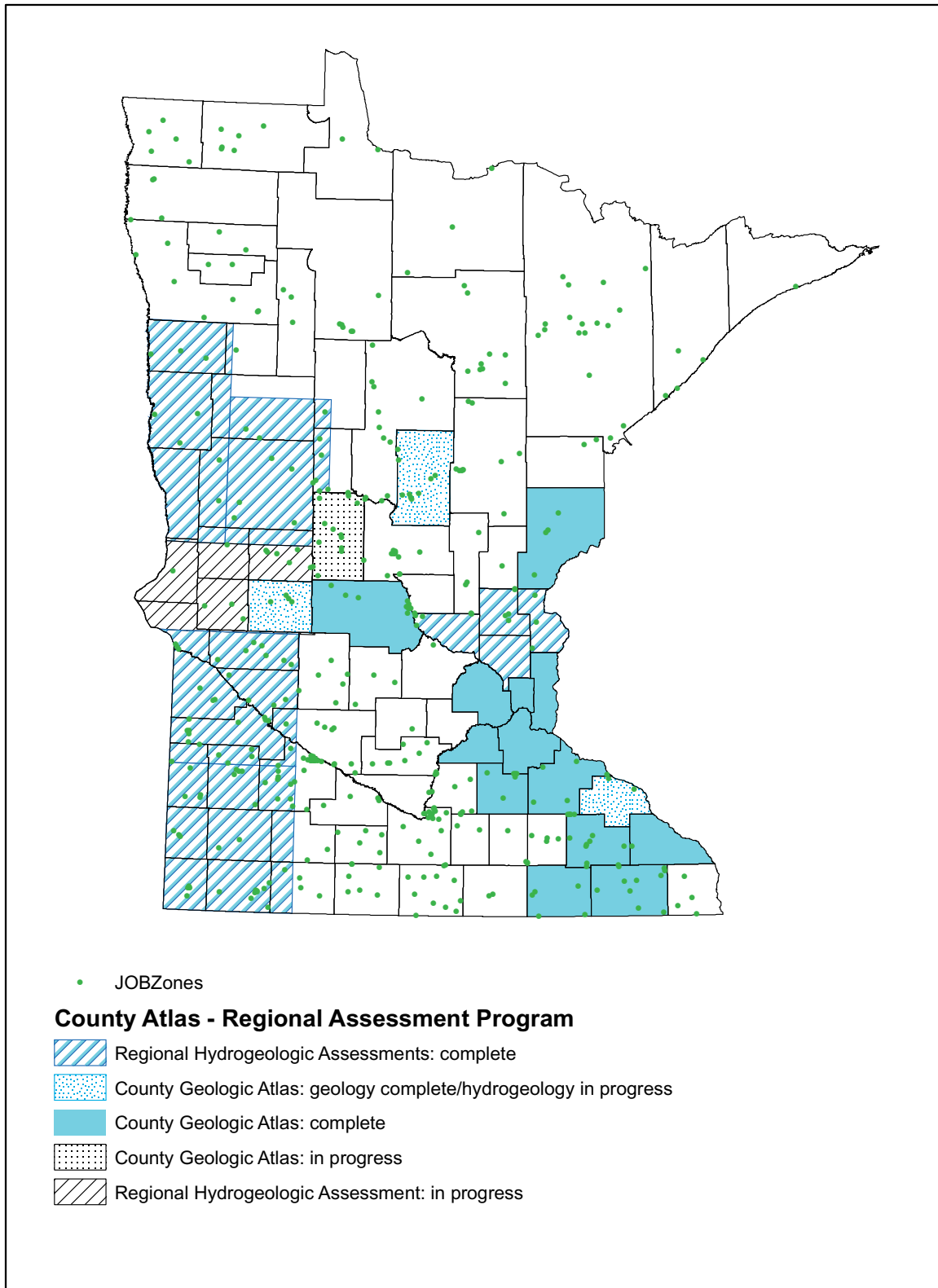
# JOBZones and Ground Water Susceptibility to Contamination\*

Environmental Quality Board, 2004



\* Pollution Control Agency, 1989

JOBZones and County Atlas - Regional Assessment Program  
Environmental Quality Board, 2004



Source: Department of Natural Resources and Minnesota Geologic Survey, 2004