

The County Well Index

**Minnesota Ground Water Association
2004 Fall Conference**

**Brian Johnson
Minnesota Department of Health**



The County Well Index

- State-wide Database of Water Well, Test Hole, and Monitoring Well Records
- Maintained by MGS and MDH



The County Well Index

Basic Data

- Well Construction Information/Driller
- Geologic Log
- Water Level Information
- Well Name/Owner
- Location Using Public Land Survey Coordinates to 10 Acres
- Reference to Cuttings, Geophysics, etc.



The County Well Index

Enhanced Data

- Field Verified Well Location
- Stratigraphic Interpretation of Geologic Log
- Aquifer Designation



The County Well Index

1979

Minnesota Geological Survey Subsurface Geology Data Base: Water Wells

Information Circular 16

Matt Walton



The County Well Index

1979

Richard Holtzman & Tim Wahl

- University of Minnesota
- Control Data Cyber 74
- FORTRAN
- Data stored by county



The County Well Index

1979

- CODING FORM
- KEYPUNCH
- TAPES



The County Well Index

1991

Minnesota Geological Survey

County Well Index version 3

Tim Wahl & Bob Tipping



The County Well Index

1991

County Well Index version 3

- Minnesota Geological Survey
- FORTRAN
- PC-based
- **Direct data entry**



The County Well Index

1997

**Minnesota Geological Survey
Minnesota Department of Health**

**County Well Index version 4
Bob Tipping & Fuliao Li**



The County Well Index

1997

County Well Index version 4

- Minnesota Geological Survey
- MS Access
- PC-based/Windows
- Multi-user data entry
- State-wide database
- GIS



The County Well Index

2002

**Minnesota Geological Survey
Minnesota Department of Health**

**County Well Index version 5
Fuliao Li**



The County Well Index

2002

County Well Index version 5

- Minnesota Department of Health
- Oracle/SDE
- Windows
- Spatial information is integrated



The County Well Index

1979
8,833

1991
135,000

1997
237,000

TODAY
375,000 well records

170,000 Field Verified Locations
126,000 Stratigraphic Interpretation



The County Well Index

Accessing CWI

- Version 4 Browser for PCs
- County Well Index Online
- Manual Files At MGS
- Public Well Data Has Restricted Access



The County Well Index

FUTURE PLANS

- Complete Entry of Historical Well Logs
- Add Images of Original Well Logs
- Add Water Chemistry Data
- Add Aquifer Test Data



The County Well Index

FUNDING

- No Direct State Funding
- Project Funding at MGS
- Federal Funding at MDH to Support Drinking Water Protection

County Well Index Online

<http://mdh-agua.health.state.mn.us/cwi>

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