

Need for a Completed, Accessible, Aquifer-Properties Database

- One of the top policy recommendations that emerged from a recent, LCCMR-funded study, (*Banking Groundwater: A study examining aquifer storage and recovery for groundwater sustainability in Minnesota*) was to improve access to existing data on aquifer properties.
- HF3004/SF3113 provides \$250,000, one-time funding to complete this data base; create a user-friendly interface and provide continued collaboration among the agencies.
- Aquifer properties are measured by sometimes lengthy pump tests (up to 30 days). Water is pumped and discharged to measure aquifer drawdown, recovery, and impact on neighboring wells. These tests are required by the state in some cases or performed by private entities to assess aquifer suitability for well production.
- Aquifer properties are essential input for regional groundwater models and models of pollution migration.
- A complete, unified aquifer-property database would save the state and municipalities money by making historic data available, thereby avoiding the need to repeat inconvenient and wasteful pump tests.
- A database structure has been created after 6 years of interagency work. DNR is populating it when they can, focusing on areas of interest to them but it does not contain many records and there are no staff dedicated to the work.
- Not all data created and housed by other agencies, consulting companies, and archived in technical documents has been discovered. Once found, reports require interpretation by a hydrologist before being compiled. Experience is required because pump tests are not reported in a standardized way.
- A complete and improved database will provide agencies, consultants and all users the ability to model groundwater across Minnesota.

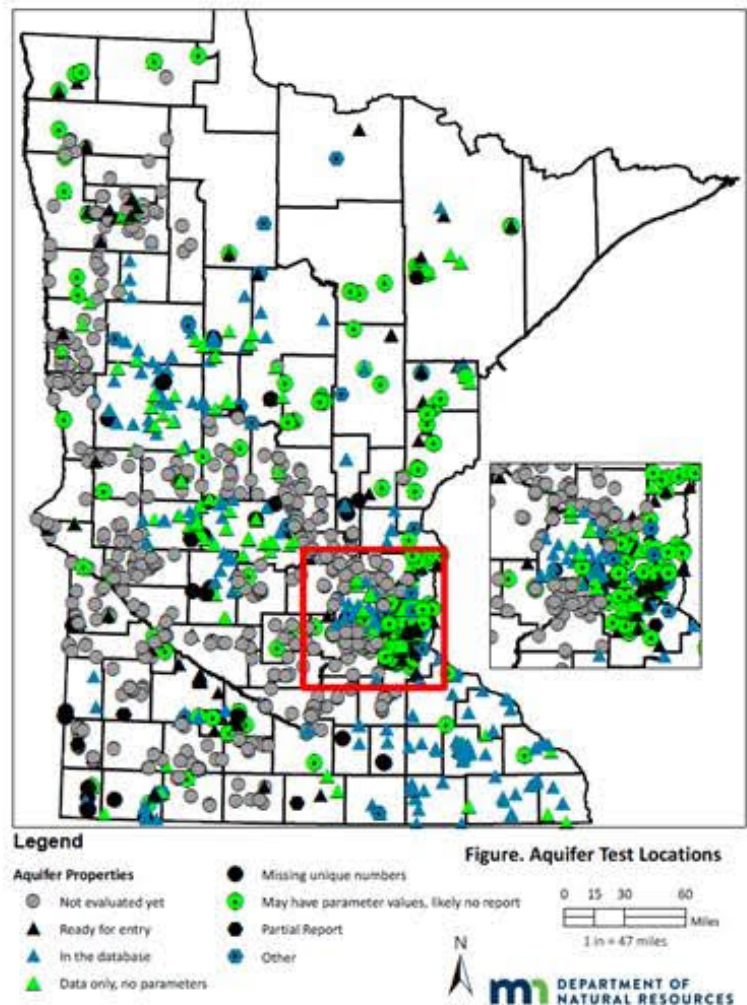


Figure 1 Status map as of January, 2022 for the aquifer property database. There are likely more data that have not yet been discovered.

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