

REVIEW OF THE MINNESOTA GROUND WATER ASSOCIATION'S WHITE PAPER #05:

“1989 GROUNDWATER PROTECTION ACT: LEGACY AND FUTURE DIRECTIONS”

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WHITE PAPER FINDINGS

- **Ensure stable funding for groundwater (GW) activities**
- **Continue and enhance sustainable GW management**
- **Enhance coordination among state water agencies**

BACKGROUND: MINNESOTA GROUNDWATER ASSOCIATION (MGWA)

- **Professional non-profit, volunteer organization focused on GW resources**
- **Approximately 400 members consisting of state agency staff, academic scientists, consultants, well drillers, educators, other interested citizens**
- **Concerned with advancement of the science, informed policy, and citizen engagement**
- **web: www.mgwa.org**

MGWA WHITE PAPERS ARE DESIGNED TO:

- **Focus on issues related to GW**
- **Convey information that is unbiased and educational**
- **Serve as a resource for public policy development**

GWA WHITE PAPER TOPICS INCLUDE:

- Manganese in GW
- Minnesota's GW education gap
- Drain tiles and GW resources
- Chloride and GW infiltration
- **GW protection Act of 1989** (topic of this presentation)
- GW data (in preparation)

1989 GW PROTECTION ACT (GWPA) PASSED WITH BIPARTISAN SUPPORT

- **Nationwide example of comprehensive GW management**
- **Major factors driving its passage:**
 - **Advancements in laboratory chemical techniques**
 - **Widespread GW contamination by industrial and agricultural chemicals**
 - **1988 drought threatened drinking water intakes for large cities**

IMMEDIATE ACCOMPLISHMENTS OF THE GWPA

- **Articulated Minnesota's GW ideals—sustainable management and degradation prevention**
- **Enacted GW appropriation rules and water-use fees**
- **Established health risk limits**
- **Defined “GW sensitive areas”**
- **Established the state well code**
- **Coordinated planning among State water agencies**
- **Provided for agricultural chemical management and cleanup (ACRRA)**
- **Initiated the County Geologic Atlas program, following USGS methods**
- **Funded projects and research**
- **Eliminated once-through cooling**

EVENTUAL ACCOMPLISHMENTS OF THE GWPA

- **Eventual accomplishments of the GWPA**
 - **Research and best management practices (BMPs) for nitrate and pesticides**
 - **Coordination of drilling and geologic data (County Well Index, CWI) and chemical data (EQulS)**
 - **Source water protection for public drinking water wells**
 - **Enabled the creation of GW management areas**
 - **Nutrient reduction strategy (MPCA/MDA)**
 - **watershed restoration and protection (WRAPS) planning approach**
 - **Enabled the creation of GW remedial action plans (GRAPS)(**

FACTORS DRIVING THE NEED FOR A REVISION OF THE GWPA

- **Many changes have occurred in 30+ years since GWPA passage:**
 - **GW demand has increased**
 - **Ability to detect and measure contaminants has improved**
 - **Our understanding of connections between land use and water quality has improved**
 - **We can expect certain effects on GW due to climate change**
 - **Funding mechanisms will become unstable in future**

MGWA WHITE PAPER PRIORITY ACTIONS

- **Ensure stable funding for critical groundwater activities**
 - **primary funding source is legacy amendment (sunsets 2034)**
 - **address predicted funding gaps**
- **Continue and enhance sustainable GW management**
 - **manage GW based on water budgets**
 - **understand thresholds that lead to unacceptable effects**
 - **quantify recharge, discharge, storage, and aquatic habitats**
 - **provide agency-specific operational definitions of GW sustainability**
 - **ensure that public and private drinking water sources are sustainable**
 - **coordinate policy for land use and water quality and water quantity**
 - **address inter-basin groundwater exports**
 - **address contaminants of emerging concern**
 - **promote technical innovation**
- **Enhance the coordination of state agencies**
 - **use ICT (interagency coordination team) model**



THANKS!

Questions or Comments?

