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Illinois Groundwater Recharge Area Protection Tools

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Tools for Protecting Constrained Water Supplies

WIN-WIN-WIN GOALS:

- **Protect Vulnerable Groundwater Resources from Contamination**
- **Protect Surface Water Resources from Development Pressures that Can Harm Aquatic Ecosystem Needs**
- **Enable Development to Go Forward in Water Supply-Constrained Counties**

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Tools for Protecting Constrained Water Supplies

- **Designate Regulated Recharge Areas to Protect Groundwater Resources and Drinking Water Supplies to Enable Development**
- **Limit Impermeable Surfaces in Vulnerable Recharge Areas to Protect Groundwater Resources and Drinking Water Supplies to Enable Development**
- **Require Water Efficient Appliances (e.g., clothes washers, dishwashers) in New Homes and Businesses to Avoid Wasteful Water Use**

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Regulated Recharge Area (“RRA”)

- **Purpose:** state-level protection of groundwater resources that are highly susceptible to contamination
- **Focus:** prevent contamination from point sources



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Under-Utilized Tool

Advances in data collection and analysis now make designation of RRAs feasible.



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Features

- Boundary based on hydrogeology
- Tailored set-back zones
- Registration of potential sources of contamination



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Features (cont.)

- Suitability assessment
- Chemical Substances Management Systems
- Training of facility personnel
- Secondary containment requirements
- Education and outreach
- Signage

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Process

IEPA proposal to Pollution Control Board.

Initiation of a proposal:

- (a) IEPA or
- (b) groundwater regional planning committee
- NOT third parties



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Process (cont.)

Grounds for a proposal:

(a) **IEPA advisory**

(b) **Groundwater needs assessment**

OR

(c) **DNR Mapping**

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Pollution Control Board

Factors:

- Protection from statutory setback zones
- PCB's groundwater standards
- Need for individualized groundwater quality standards
- Other sources of supply for public water supplies

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Alternative: Zoning

Overlay districts that provide analogous protections:

- Setback zones
- Operating permit requirements
- Reporting requirements
- Examples: City of Pekin and Tazewell County



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Urbanization & Groundwater Contamination

Recharge rates and base flow can be affected by:

- Impervious Surfaces
- Storm Sewers
- Storm water Detention Basins
- Groundwater withdrawals
- Water Distribution Systems
- Sanitary Sewer Systems

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Non-Point Source Protections

- Limitations on forms of development
- Impervious surface area and building footprint limitations
- Increased minimum lot size
- Tiered densities
- Incentives for recharge-sensitive cluster development
- Design Review promoting on-site infiltration

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How to Make This Work

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