

# WHAT IS CONSIDERED A THREAT TO GROUNDWATER

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# ILLINOIS GROUNDWATER PROTECTION ACT (415 ILCS 55/2) – ILLINOIS GROUNDWATER PROTECTION POLICY

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- (Sec. 2. (a) The General Assembly finds that:
  - (i) a large portion of Illinois' citizens rely on groundwater for personal consumption, and industries use a significant amount of groundwater;
  - (ii) contamination of Illinois groundwater will adversely impact the health and welfare of its citizens and adversely impact the **economic viability of the State**;
  - (iii) contamination of Illinois' groundwater is occurring;
  - (iv) **protection of groundwater is a necessity for future economic development in this State.**
- (b) Therefore, it is the policy of the State of Illinois to restore, protect, and enhance the groundwaters of the State, as a natural and public resource. The State recognizes the essential and pervasive role of groundwater in the social and economic well-being of the people of Illinois, and its vital importance to the general health, safety, and welfare. It is further recognized as consistent with this policy that the groundwater resources of the State be utilized for beneficial and legitimate purposes; **that waste and degradation of the resources be prevented**; and that the underground water resource be managed to allow for maximum benefit of the people of the State of Illinois. (Source: P.A. 85-863.)

# POTENTIAL SOURCES OF GROUNDWATER CONTAMINATION VS. SOURCES OF CONTAMINATION

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- Potential contamination sources (415 ILCS 5/3.345, 3.355 and 3.3500)
- Contaminant sources (415 ILCS 5/3.170)
- Contaminants (415 ILCS 5/3.165)

## 415 ILCS 5/12. ILLINOIS ENVIRONMENTAL PROTECTION ACT - ACTIONS PROHIBITED. **NO PERSON** SHALL:

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- (a) **Cause or threaten or allow** the discharge of **any contaminants** into the environment in any State so as to cause or tend to cause water pollution in Illinois, either alone or in combination with matter from other sources, or so as to violate regulations or standards adopted by the Pollution Control Board under this Act.
- (d) **Deposit any contaminants upon the land in such place and manner so as to create a water pollution hazard.** (Emphasis Added)

# PART 620 (GROUNDWATER QUALITY STANDARDS) ADOPTED BY THE ILLINOIS POLLUTION CONTROL BOARD

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- "**Resource groundwater**" means groundwater that is presently being, or in the future is capable of being, put to beneficial use by reason of being of suitable quality. [415 ILCS 5/3.430]
- **Resource Based Groundwater Classification System**
  - Class I: Potable Resource Groundwater
  - Class II: General Resource Groundwater
  - Class III: Special Resource Groundwater
  - Class IV: Other Groundwater

# SUBPART C: NONDEGRADATION PROVISIONS FOR APPROPRIATE GROUNDWATERS

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- **Section 620.301 General Prohibition Against Use Impairment of Resource Groundwater**
  - a) No person shall cause, **threaten** or allow the release of any contaminant to a resource groundwater such that:
    - 1) Treatment or additional treatment is necessary to continue an existing use or to assure a potential use of such groundwater; or
    - 2) An existing or potential use of such groundwater is precluded.

# SECTION 620.302 APPLICABILITY OF PREVENTIVE NOTIFICATION AND PREVENTIVE RESPONSE ACTIVITIES

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- a) Preventive notification and preventive response as specified in Sections 620.305 through 620.310 applies to:
  - 1) Class I groundwater under Section 620.210(a)(1), (a)(2), or (a)(3) that is monitored by the persons listed in subsection (b); or
  - 2) Class III groundwater that is monitored by the persons listed in subsection (b).

# SUBPART D: GROUNDWATER QUALITY STANDARDS

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- **Section 620.401 Applicability**
  - Groundwaters must meet the standards appropriate to the groundwater's class as specified in this Subpart and the nondegradation provisions of Subpart C.
- **Section 620.405 General Prohibitions Against Violations of Groundwater Quality Standards**
  - No person shall cause, **threaten** or allow the release of any contaminant to groundwater so as to cause a groundwater quality standard set forth in this Subpart to be exceeded.



# “POTENTIAL PRIMARY SOURCE” MEANS ANY UNIT AT A FACILITY OR SITE NOT CURRENTLY SUBJECT TO A REMOVAL OR REMEDIAL ACTION WHICH:

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- **(1)** is utilized for the treatment, storage, or disposal of any hazardous or special waste not generated at the site; or
- **(2)** is utilized for the disposal of municipal waste not generated at the site, other than landscape waste and construction and demolition debris; or
- **(3)** is utilized for the landfilling, land treating, surface impounding or piling of any hazardous or special waste that is generated on the site or at other sites owned, controlled or operated by the same person; or
- **(4)** stores or accumulates at any time more than 75,000 pounds above ground, or more than 7,500 pounds below ground, of any hazardous substances.

# “POTENTIAL SECONDARY SOURCE” MEANS ANY UNIT AT A FACILITY OR A SITE NOT CURRENTLY SUBJECT TO A REMOVAL OR REMEDIAL ACTION, OTHER THAN A POTENTIAL PRIMARY SOURCE, WHICH:

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- **(1)** is utilized for the landfilling, land treating, or surface impounding of waste that is generated on the site or at other sites owned, controlled or operated by the same person, other than livestock and landscape waste, and construction and demolition debris; or
- **(2)** stores or accumulates at any time more than 25,000 but not more than 75,000 pounds above ground, or more than 2,500 but not more than 7,500 pounds below ground, of any hazardous substances; or
- **(3)** stores or accumulates at any time more than 25,000 gallons above ground, or more than 500 gallons below ground, of petroleum, including crude oil or any fraction thereof which is not otherwise specifically listed or designated as a hazardous substance; or
- **(4)** stores or accumulates pesticides, fertilizers, or road oils for purposes of commercial application or for distribution to retail sales outlets; or
- **(5)** stores or accumulates at any time more than 50,000 pounds of any de-icing agent; or
- **(6)** is utilized for handling livestock waste or for treating domestic wastewaters other than private sewage disposal systems as defined in the “Private Sewage Disposal Licensing Act.”

# “POTENTIAL ROUTE”

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- Abandoned and improperly plugged wells of all kinds, drainage wells, all injection wells, including closed loop heat pump wells, and any excavation for the discovery, development or production of stone, sand or gravel. This term does not include closed loop heat pump wells using USP food grade propylene glycol.

# GROUNDWATER PROTECTION NEEDS ASSESSMENT (GPNA) 415 ILCS 5/17.1

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- **Sec. 17.1. (a)** Every county or municipality which is served by a community water supply well may prepare a **groundwater protection needs assessment**.
- **(1)** Evaluation of the adequacy of protection afforded to resource groundwater by the minimum setback zone and, if applicable, the maximum setback zone;
- **(2)** Delineation, to the extent practicable, of the recharge area outside of any applicable setback zones but contained within any area over which the county or municipality has jurisdiction or control;
- **(3)** Identification and location of potential primary and potential secondary sources and potential routes within, and if appropriate, in proximity to the delineated recharge area for each such well;
- **(4) Evaluation of the hazard associated with identified potential primary and potential secondary sources and potential routes contained within the recharge area** specified according to subparagraph (a)(2) of this Section, taking into account the:
  - characteristics of such potential sources and potential routes,
  - the nature and efficacy of containment measures and devices in use,
  - **the attenuative qualities of site soils in relation to the substances involved,**
  - the proximity of potential sources and potential routes and **the nature, rate of flow, direction of flow and proximity of the uppermost geologic formation containing groundwater utilized by the well;**

# GPNA CONTINUED...

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- **5)** Evaluation of the extent to which existing local controls provide, either directly or indirectly, some measure of groundwater protection; and
- **(6)** Identification of practicable contingency measures, including provision of alternative drinking water supplies, which could be implemented in the event of contamination of the water supply.

# ADVISORY OF GROUNDWATER CONTAMINATION ADVISORY (COUSIN OF THREAT) 415 ILCS 5/17.1(G)

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- The Agency may issue **an advisory of groundwater contamination hazard** to a county or municipality which has not prepared a groundwater protection needs assessment and for which the Agency has conducted a well site survey under Section 17.1(g) of the Act.
- Such advisory may only be issued where the Agency **determines that existing potential primary sources, potential secondary sources or potential routes identified in the survey represent a significant hazard to the public health or the environment.**
- The Agency shall publish notice of such advisory in a newspaper of general circulation within the county or municipality and shall furnish a copy of such advisory to any applicable regional planning committee.

# RIGHT-TO-KNOW (RTK) NOTIFICATION BASED ON THREAT (415 ILCS 55/9.1, 415 ILCS 5/25D, 415 ILCS 5/13.6)

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- Well centric
- Site centric: soil or groundwater contaminants
- Community water supply (CWS)
- Radionuclide
- Carcinogenic volatile organic compound (VOC) maximum contaminant level (MCL) prevention

# WELL CENTRIC RTK (415 ILCS 55/9.1)

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- Whenever the Agency identifies any volatile organic compound in excess of the Board's Groundwater Quality Standards or the Safe Drinking Water Act maximum contaminant level while performing its obligations under Section 7 of this Act, Section 13.1 of the Environmental Protection Act, or the federal Safe Drinking Water Act, the Agency shall notify the Department, unless notification has already been provided, and the unit of local government affected.
- Within 60 days of receipt of notice provided for in subsection (a) of this Section, the Department, or the Department in coordination with the delegated county health department, shall provide notice to the public identifying the contaminants of concern.



# SITE CENTRIC RTK (415 ILCS 5/25D)

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- (1) **Soil contamination beyond the boundary of the site** where the release occurred, soil gas contamination beyond the boundary of the site where the release occurred, or both pose a threat of exposure to the public above the appropriate Tier I remediation objectives, based on the current use of the off-site property, adopted by the Board under Title XVII of this Act, the Agency shall give **notice of the threat** to the owner of the contaminated property; or
- (2) **Groundwater contamination poses a threat of exposure to the public above the Class I groundwater quality standards** adopted by the Board under this Act and the Groundwater Protection Act, the Agency shall give notice of the threat

# CWS RTK 415 ILCS 5/25D-3(2)(B)

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- Groundwater contamination poses a threat of exposure to the public above the Class I groundwater quality standards adopted by the Board under this Act and the Groundwater Protection Act, the Agency shall give notice of the threat to the following:
  - within 2 days after determining that groundwater contamination poses a threat of exposure to the public above the Class I groundwater quality standards, provide notice of the determination by issuing a press release and posting the press release on the Agency's website
  - within 5 days after the determination, provide the owner and operator of the community water system and the owners and operators of all connected community water systems with a notice printed on Agency letterhead that:
    - identifies the contaminant posing the threat,
    - the level of contamination found, and
    - possible human health effects associated with exposure to the contaminant.

# CWS RTK 415 ILCS 5/25D-3(2)(B) CONTINUED...

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- Within 5 business days after receiving a notice from the Agency under this paragraph, the owner or operator of the community water system must send, to all residents and owners of premises connected to the affected community water system:
  - a copy of the notice by first-class mail or by e-mail; or
  - notification, in a form approved by the Agency, via first-class postcard, text message, or telephone; except that notices to institutional residents, including, but not limited to, residents of school dormitories, nursing homes, and assisted care facilities,