



IOWA CHAPTER

Protecting Iowa's Aquifers

Considering that Iowa has experienced a number of heavy floods over the last 20 years, it may seem odd that Iowans should be concerned about water quantity. However, Iowans are tapping the aquifers for water. Aquifers recharge using rainwater and snow. If water is withdrawn faster than it can recharge, the aquifer will be drained, a process called dewatering. The Iowa Chapter supports the following policies:

- Monitoring aquifer health by the Iowa Department of Natural Resources (DNR) on an on-going basis will ensure this water resource is not depleted. The Ogallala Aquifer west of Iowa is being depleted so we must be prudent and wisely manage the water resource in Iowa. Biofuel production draws significant amounts of water from ground water sources and surface sources. Corn-based ethanol production methods require approximately four gallons of water for each gallon of ethanol produced. Likewise, the large, industrial-scale concentrated animal feeding operations require significant quantities of water. Industrial uses and home water uses also consume water that is withdrawn from the aquifers. If climate change causes a much dryer climate in Iowa, farmers will increase their use of irrigation placing additional pressures on the aquifer.

- The Iowa Chapter opposes pump-and-dump geothermal installations and supports mandatory modification of



An ethanol plant. Photo credit: Pam Mackey-Taylor

those systems to closed-loop systems. Pump-and-dump geothermal withdraws water from the aquifer, uses it to heat or cool a building and then discards the water into a stream or storm sewer after the heat exchange process has been completed. Another name for pump-and-dump geothermal is open loop geothermal.

- Industries withdrawing large quantities of water from the aquifer should pay for that withdrawal. The Chapter supports regulations that increase the water use permit fees paid by industries for large-scale water withdrawal. A water use permit is required of any entity that withdraws at least 25,000 gallons in a 24-hour period during any calendar year; the permit is for 5 years for withdrawals in the Jordan aquifer and 10 years for other water sources. A new permit to

withdraw water costs \$350 with a renewable permit issued at no charge. A permit modification to increase the rate of water usage or the source of the water costs \$350 while other changes to a permit are allowed at no charge. Increased fees would be used to support Iowa DNR water monitoring programs.ⁱ

These policies will ensure that water withdrawal is sustainable.

ⁱ <http://www.iowadnr.gov/portals/idnr/uploads/forms/5421470.pdf>