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Control Agency**

The History of Solid Waste Management in Minnesota



CDI Landfill Work Group Meeting, August 25, 2008



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1960s and 1970s Milestones / laws

- **1967 – MPCA created**
- **1970's – Solid waste rules adopted**
 - **Initial rule: landfill permits and minimal design and operation requirements**
 - **Revised: prohibit haz waste disposal, require 5 ft. separation from GW, establish closure requirements for dumps**
- **1973 - 1500 dumps replaced by 140 permitted landfills**
- **1976 - Federal Resource Conservation and Recovery Act (RCRA) enacted**
- **1978 – Joint Legislative Committee on Solid & Hazardous Waste created**



- **1980 - Minnesota Waste Management Act enacted**
 - **State waste management hierarchy**
 - **Creates landfill siting process**
 - **State/County roles defined**
 - **Legislative Commission on Waste Management created**
 - **Waste Management Board created**
 - **New terminology; abatement**
- **1980 - MPCA documents ground water contamination at sanitary landfills**
- **1981 - RCRA State Plan approved by EPA**



- **1983 - Minnesota's Superfund Program created**
- **1988 - MPCA promulgates new landfill siting criteria and design standards; liner/leachate collection and ground water monitoring requirements; sets closure/post closure and financial assurance requirements; permit-by-rule for recycling, yard waste, transfer and demolition facilities**
- **1988 - WMA Amendments**
 - **Spent lead acid batteries/used oil disposal prohibited**
 - **Used motor oil restricted from disposal without approval**
- **1989 - Counties required to have HH Waste Plan**



- **1991 - New federal standards for landfills enacted (Subtitle D RCRA)**
 - **New MSW landfills must be lined**
 - **Leachate must be collected and treated**
- **1994 - Landfill Cleanup Program Act**
 - **Creates closed landfill program; transfers ownership of landfills to state**
- **1996 – LCWM abolished**



- **1990s - Waste Management Act Problem Material Bans**
 - **Dry cell batteries, sealed lead-acid batteries and rechargeable batteries banned from land disposal**
 - **Major appliances**
 - **Mercury in solid waste or wastewater**
 - **Fluorescent lamps**
 - **Lead paint banned in unlined landfill/incinerator**
 - **Motor oil filter ban extended to generation by households**
 - **Motor vehicle fluids**



- **1998 - 2003 – Demolition and industrial waste rulemaking efforts discussed and cancelled.**
 - **Cooperative guidance development effort initiated**
- **2005 – Cooperative effort resulted in many guidance documents**
 - **Most notable: Demolition landfill guidance**



- **Prior to 1970's wastes indiscriminately dumped or burned**
 - **Only diversion commercial scrap**
- **Majority of ground water contamination is a legacy of pre-1970 disposal.**
- **Change in character of wastes – especially industrial wastes – after hazardous waste rules went into effect**



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Observations

- **Some old, unlined landfills can cause widespread ground water problems (e.g. Washington Co. SLF)**
- **Ground water protection: engineering vs. siting**
 - **What is the balance?**



- **Present day landfill problems mainly due to noncompliance and demolition projects**
- **Many demolition problems will be addressed thru pre-demolition rulemaking**
- **Continue to evaluate leachate and ground water data at demo landfills**



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Basic Types of Solid Waste Permit Categories

- **Industrial Waste Landfills**
- **Demolition Waste Landfills**
- **Other Landfills:**
 - **Municipal Solid Waste (MSW)**
 - **MSW Combustor Ash**
- **Non-Landfill Facilities:**
 - **MSW Compost**
 - **Transfer**
 - **Resource Recovery**
 - **Certain Solid Waste utilization programs**



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How distinct are the waste streams that name landfills?

- **MSW vs Industrial vs Demolition**
 - **Titles make them seem more distinct than they really are**
 - **Industrial Solid Waste Management Plans provide flexibility to take in wastes upon MPCA approval**
 - **Some demo landfills can take construction and industrial wastes**
 - **< 50% rule of thumb**



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Conclusion

- **Ends my presentation on Solid Waste Management History**
- **Overview of land management of CDI wastes today**
 - **Neal Wilson, MPCA Hydrogeologist**