

Division of Waste Management

Landfill Capacity

Presentation to:

SWANA Tri-State Conference

Cincinnati, Ohio

July 25, 2008

**Department for Environmental Protection
Energy & Environment Cabinet**



KY Landfill Capacity

Why require annual surveys for capacity?

- In 1990, KY had less than five years of capacity;
- KY received over 1M tons/yr from Northeast U.S.;
- Owners were not allowing expansion review time;
- Legislature reasoned landfills would fill quickly.

KY Landfill Capacity

401 KAR 47:190, Sec. 8(2) requires an survey of remaining space:

- Annually between January 1 and May 1;
- Normal survey reports due July 1;
- Aerials due August 1;
- Report waste based on 365-day year.

KY Landfill Capacity

- 401 KAR 47:190, Sec. 8(2) also requires:
- 15 day advance notice to the cabinet;
- Certification by and seal of Professional Engineer or Land Surveyor;
- Cross-Sections on 100-foot centers showing;
 - Current waste placement; and
 - Proposed final contours.

KY Landfill Capacity

- Cabinet uses Annual survey to determine:
- Using daily average tonnage, if waste density near goal of 1200 lbs/CY;
- State-wide remaining capacity in years for annual report to legislature;
- Cross-Sections on 100-foot centers showing;
 - Current waste placement; and
 - Proposed final contours.
- Remaining landfill capacity in cubic yards (CY).

KY Landfill Capacity

- Typical Form:
- (annual survey form page 2)

KY Landfill Capacity

- Typical Form:
- (more annual survey form page 2)

KY Landfill Capacity

- Typical Form:
- (Annual survey form page 3)

KY Landfill Capacity

- Typical Cross-Section:
(One cross-section plan)

KY Landfill Capacity

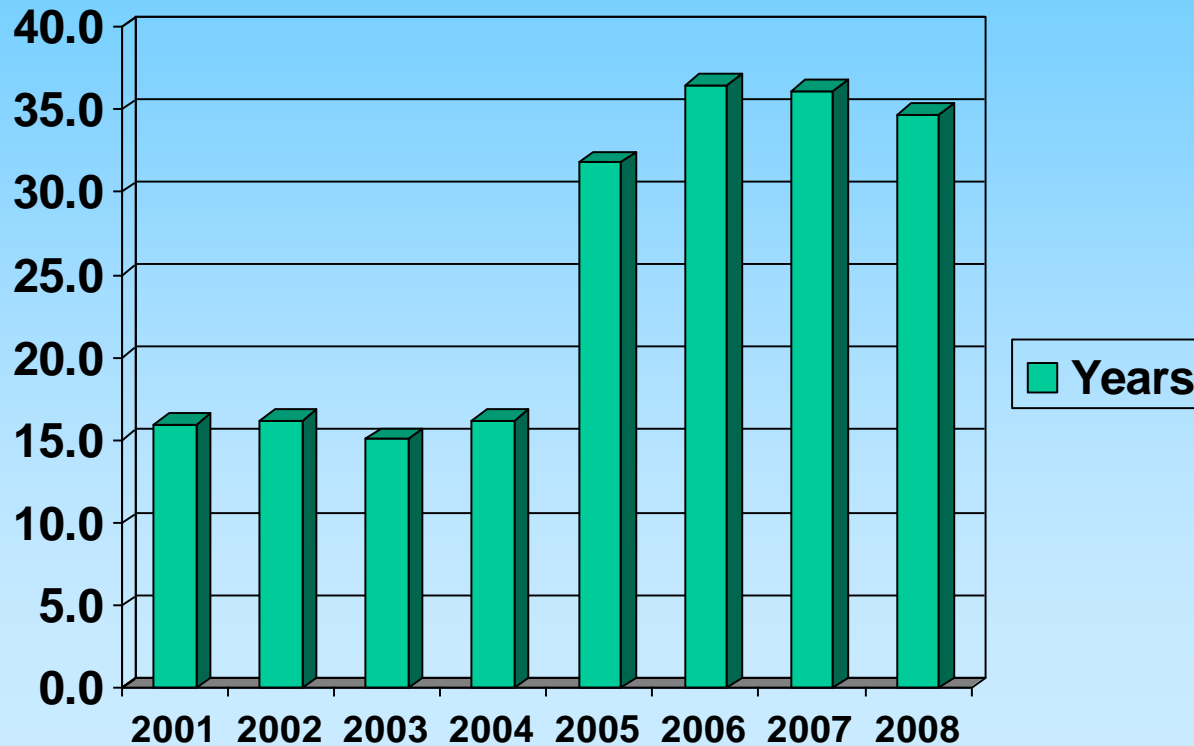
- 2008 Annual Survey Data:
- 271 MCY of remaining permitted airspace;
- 7.8 MCY used in 2007-2008; and
- 35 years capacity

KY Landfill Capacity

- Why so much space?
- Rules required new landfills by July 1, 1995; and
- The average landfill added 10 to 20 years of space;

KY Landfill Capacity

Capacity Trends:



KY Landfill Capacity

- Why so much more space?
- Outer Loop (WMI-Louisville) added 63 MCY or 50 site-years in 2004;
- Big Run (Ashland) opened with 8 MCY in 2006; and
- Other landfill expansions.

KY Landfill Capacity

- Possible effects of so much more space?
- KY has fairly low disposal rates avg. \$29.21 per ton;
- Northeast Trash (Big Run, Ashland) and
- Less incentive to recycle, maybe.

KY Landfill Capacity

- For more information, contact:
- George Gilbert
- Environmental Engineer Consultant
- Kentucky Department for Environmental Protection
- 502-564-2225, ext. 217
- george.gilbert@ky.gov