

WV Biosolids

Methods/Assumptions

WV oddities

(just relating to biosolids:)

- More regulation
- Fewer & smaller facilities
 - Class A bulk biosolids still need permit.
 - Billing for land application
 - Lifetime LR ➔ cumulative LR tracked by field

Available records

- eDMRs + old scanned paper reports
- Historical ALR calculation spreadsheets for each land application site
 - Crop type
 - Nutrient data for biosolids
- Billing records for LA fees, back to 1994
- Land application data, by field (generally more recent)

Rules for interpolating missing months/years in the dataset

- Good monthly/annual production data by facility back to 1994.
 - Divided annual production by 12 to get monthly, when not available.
 - Projected '95-2000 back to '85
- Assumed same crop types in missing years
- Analytical (Used “facility specific” data):
 - “contemporary data” (roughly annual)
 - If no data available for a year, default back to longer periods

Determining crop type

- We had pretty good info on crop type & acres permitted. (Lacked historical field application records.)
- Assumption Rules:
 - No LA on corn May-October (1 facility used corn)
 - May-October, all LA on pasture
 - Nov-April, all LA on corn
 - No LA on hay April-September
 - Nov-Mar, LA on hay until reach max LR, then back to pasture

Calculating acreage and amount applied

- Monthly production by facility (discussed previously)
- $\text{Acreage} = \text{monthly production} / \text{permitted loading rate}$

Calculating nutrient species concentrations

- Didn't for Phos
 - Default to group decision
- NO₃-NO₂
 - Assumed negligible
 - [EPA 2009 NSSS](#)