

Session F:

Agricultural Practices to Improve Water Quality Multipurpose Room - 11:45-12:45

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Sponsors:



Smart Digestion

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General Regulatory Questions

True or False

1. Some farms are “regulated” while others are not.
2. Only large farms (>80 dairy cows) or farms with high concentrations of animals are regulated.
3. All small farms (<80 cow dairy herd) are exempt from regulations.
4. Farm Conservation Plans are only needed if you are receiving money from the Federal government.
5. If you have received money from Federal government then you must be OK and have a Farm Conservation Plan.
6. Farmers are exempt from penalties if they did not know they were causing a pollution event.
7. You will only get fined if you cause a pollution event never for creating a situation that has the potential to pollute.
8. If you own both sides of the creek/stream you do not need any permits to “adjust” the stream.
9. If a complaint is sent to an agency about your farming operation you have the right to find out who made the complaint.
10. Always better to ask for forgiveness than permission.



The District is...

- Established by lawLCCD 1950
- Nine member Board appointed by Co. Com
- 26 Staff members hired by the Board (not County employees)
 - 14 working directly and 100% with Ag
 - 12 working indirectly or part-time with Ag



District's Role

Balanced Trust.....

- Common Sense buffer between big brother government and the local landowner
- Conservation Planning provides a menu of options to meet regulatory requirements
- Education and Outreach to both ag and non ag audiences
 New Technologies and Best Management Practices (BMPs)
- **Required Output Measures** by delegation agreements with DEP, PA Dept of Ag and State Conservation Commission
 upon complaint or investigation
 (Voluntary Compliance first, second and third before penalties)



Ag Baseline Compliance

- Farm Conservation Plan - 1972
PA Code 102.4
- Manure Management Plan – 1977
PA Code 91.3
- Animal Concentration Area - 2010
PA Code 102.4 (Revised 11/18/10)



Due Diligence –Now!

- Update your Farm Conservation Plan
District, NRCS, Private Consultants
- Keep records on your manure management
Self, Private Consultants
- Eliminate point source discharges
Barnyard issues, Fence Em' Out



Ag Complaints

50 Ag Complaints/yr ...are they violations?

25 NO <<⇔>> 25 YES

25 Violations:

24Resolved via Voluntary Compliance

1....Resolved via Penalty (\$1,500 avg.)



Ag Complaints

initiated by:

EPA & PennFutures

- EPA – Watson Run..... 24 Farms –Sept. 2009
- PennFutures (Southern Lanc Co.).... 5 Farms – Nov. 2009
- PennFutures (Bart Twp.) 35? Farms – July 2010
- EPA Individual Farm Inspections... 10 Farms – 2010
- EPA Muddy Run 20/88 Farms Oct-Dec 2010
- EPA - 5 Watersheds..... 250 Farms - 2010 & 2011



Common Factors

- Livestock/Poultry
- Manure
- Streams
- Observable from the public highway
- Point Source Discharge (Animal Concentration Area)



Environmental Trains Rolling into Lancaster County

- Pres. Obama # 13508 June 2009
- EPA Region III - Watson Run Fall 2009
- Total Maximum Daily Loads (TMDL) Dec 2010



Manure is the issue!



How Far Could It Go?

- No Winter spreading (Dec 15th – Mar 1st)
- No spreading on frozen ground
- No spreading on snow covered ground
- No spreading on high Phosphorus Indexed
- No spreading on fields in HQ or EV watersheds
- No daily haul and spread (storage capacity 6 months minimum)
- No spreading on no-till ground ...period!



Anaerobic Digesters

Snapshot Lancaster County 1985:

Turkey Hill, Harlan Keener, Oregon Dairy

Snapshot Lancaster County 2010:

Turkey Hill – non-functional

Harlan Keener – functional

Oregon Dairy (currently being up-graded)

Alfred Wanner – new 2007

Brubaker Farms – new 2008

Scott & Herb Kreider – construction phase

*W. Cocalico Twp. – construction scheduled

*non-traditional type of digester



Anaerobic Digesters

- Who? Large Dairy/Swine Operations
- Why? Opportunity to diversify (Historic)
Odor reduction (Dairy)
Soil Phosphorus concerns (Swine)
- Cost? \$1 – 1.5M



Anaerobic Digesters

- Grants: ARRA, PennVest, USDA, DEP
- Generation Size: 125KW – 225KW
- Number of homes: 50 - 150
- Digester Material (feedstock):
 - Manure
 - Poor Quality Cattle Feed
 - Food waste (pre and post consumer)



Anaerobic Digesters

- Show me the Money!
 - Net Metering (issue resolved with Flat Rate)
 - Pioneer Rate 6 cents per Kw
 - Flat Rate 13 cents per Kw
- Payback:
 - Estimated to be 7-10 years without grants
 - Utility pays the farmer in January for the preceding year of energy production



Anaerobic Digesters

Positive Outcomes:

- Green Renewable Energy
- Odor Reduction
- Heat
- Bedding Material
- Farm Income Diversity (Electricity, Bedding)
- Local Agribusiness (construction plus O&M)
- Higher Level of Precision Agriculture
 - (Revised Nutrient Management Plan)











- Smart Digestion – Value Added Factors
 - Environmentally Sustainable
 - Continued Expansion of Livestock Industry
 - Meets or Exceeds Regulatory Requirements
 - Positive Image