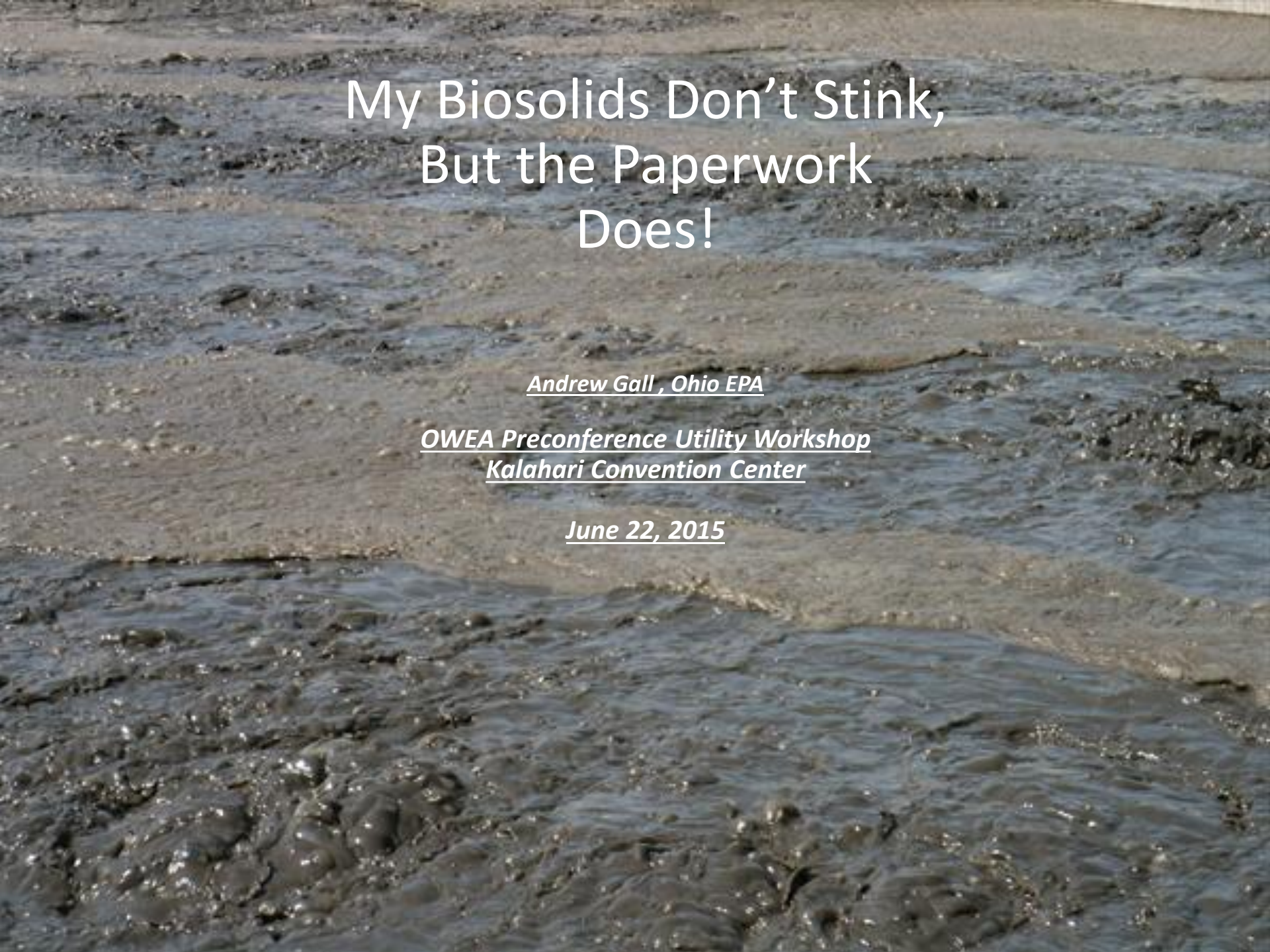


My Biosolids Don't Stink, But the Paperwork Does!

Andrew Gall , Ohio EPA

OWEA Preconference Utility Workshop
Kalahari Convention Center

June 22, 2015

The digester & drying beds are full!

Ohio Environmental Protection Agency

Let’s land apply!

Ohio Environmental Protection Agency

Not so fast…

Ohio Environmental Protection Agency

Check your records!

Ohio Environmental Protection Agency

Check your records

- Is the site authorized?
- Are your soil samples current?
- Have you sampled the biosolids and reviewed the results?
- Do you have your certification statements?
- Have you calculated the Agronomic Rate?
- Notice and Necessary Information (NANI)
- Signage Placement Records
- Weather Records and Field Tile Monitoring

Ohio Environmental Protection Agency

Make a Checklist !!

Allen County Ohio

RECEIVED
MAR 2 0 2008
OHIO E.P.A.
N.W.D.O.

Biosolids Land Application Checklist

Ohio EPA Number: 02-00103

Field Identification Number: All-4-A Field Location: Cole St at main office

_____ The field has been approved for biosolids application by OEPA.

_____ A soil sample has been taken within past the 2 years.

_____ The soil pH is 5.5 or higher.

_____ The soil phosphorous level is less than 150 parts per million (300 pounds per acre) Bray-Kurtz P1 extraction or 170 parts per million (three hundred forty pounds per acre) Mehlich 3 extraction.

_____ The metals concentrations of the biosolids to be applied are less than the Table 3 concentration limits.

_____ The biosolids to be applied meets pathogen reduction alternative 1. (The geometric mean of the fecal coliform bacteria density in seven samples is less than 2,000,000 MPN per gram of total solids.)

_____ The biosolids have been analyzed for TKN, ammonia, phosphorous, potassium, pH, % total solids, and % volatile solids.

_____ The agronomic rate calculations have been performed.

_____ The farmer has been notified of the site restrictions.

_____ The isolation distances have been marked.

_____ The signage requirements have been met.

Date Signs Posted: _____ **Date Removed:** _____

_____ The farmer has been given an information sheet on the biosolids that were applied to this site.

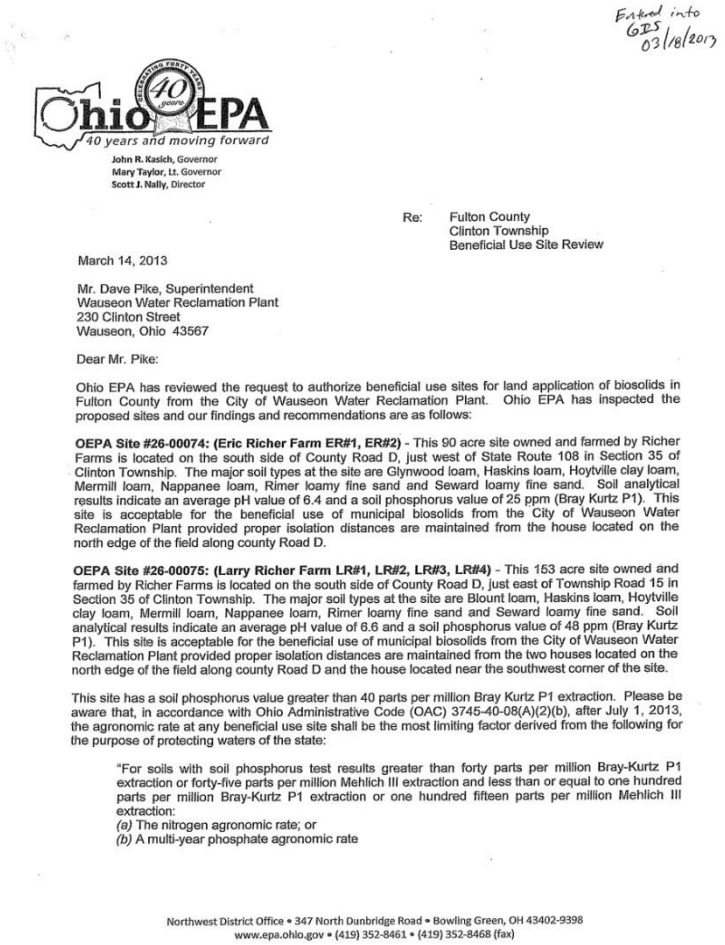
As each requirement listed has been fulfilled, the person responsible is to place their initials on the line beside the requirement. After all requirements listed are fulfilled, the responsible person is to sign and date below.

Bill Griffin _____ _____
Name **Signature** **Date**

Ohio Environmental Protection Agency

Is the site authorized?

- OAC 3745-40-09 (C)
- Biosolids generator required to have the following on file:
  - Beneficial use site authorization application
  - Ohio EPA Site Authorization Letter



Entered into GIS 03/18/2013

Ohio EPA
40 years and moving forward

John R. Kasich, Governor
Mary Taylor, Lt. Governor
Scott J. Nally, Director

Re: Fulton County
Clinton Township
Beneficial Use Site Review

March 14, 2013

Mr. Dave Pike, Superintendent
Wauseon Water Reclamation Plant
230 Clinton Street
Wauseon, Ohio 43567

Dear Mr. Pike:

Ohio EPA has reviewed the request to authorize beneficial use sites for land application of biosolids in Fulton County from the City of Wauseon Water Reclamation Plant. Ohio EPA has inspected the proposed sites and our findings and recommendations are as follows:

OEPA Site #26-00074: (Eric Richer Farm ER#1, ER#2) - This 90 acre site owned and farmed by Richer Farms is located on the south side of County Road D, just west of State Route 108 in Section 35 of Clinton Township. The major soil types at the site are Glynwood loam, Haskins loam, Hoytville clay loam, Mermill loam, Nappanee loam, Rimer loamy fine sand and Seward loamy fine sand. Soil analytical results indicate an average pH value of 6.4 and a soil phosphorus value of 25 ppm (Bray Kurtz P1). This site is acceptable for the beneficial use of municipal biosolids from the City of Wauseon Water Reclamation Plant provided proper isolation distances are maintained from the house located on the north edge of the field along county Road D.

OEPA Site #26-00075: (Larry Richer Farm LR#1, LR#2, LR#3, LR#4) - This 153 acre site owned and farmed by Richer Farms is located on the south side of County Road D, just east of Township Road 15 in Section 35 of Clinton Township. The major soil types at the site are Blount loam, Haskins loam, Hoytville clay loam, Mermill loam, Nappanee loam, Rimer loamy fine sand and Seward loamy fine sand. Soil analytical results indicate an average pH value of 6.6 and a soil phosphorus value of 48 ppm (Bray Kurtz P1). This site is acceptable for the beneficial use of municipal biosolids from the City of Wauseon Water Reclamation Plant provided proper isolation distances are maintained from the two houses located on the north edge of the field along county Road D and the house located near the southwest corner of the site.

This site has a soil phosphorus value greater than 40 parts per million Bray Kurtz P1 extraction. Please be aware that, in accordance with Ohio Administrative Code (OAC) 3745-40-08(A)(2)(b), after July 1, 2013, the agronomic rate at any beneficial use site shall be the most limiting factor derived from the following for the purpose of protecting waters of the state:

"For soils with soil phosphorus test results greater than forty parts per million Bray-Kurtz P1 extraction or forty-five parts per million Mehlich III extraction and less than or equal to one hundred parts per million Bray-Kurtz P1 extraction or one hundred fifteen parts per million Mehlich III extraction:
(a) The nitrogen agronomic rate; or
(b) A multi-year phosphate agronomic rate

Northwest District Office • 347 North Dunbridge Road • Bowling Green, OH 43402-9398
www.epa.ohio.gov • (419) 352-8461 • (419) 352-8468 (fax)

Ohio Environmental Protection Agency

The site is not authorized if you don’t have copies of these items!

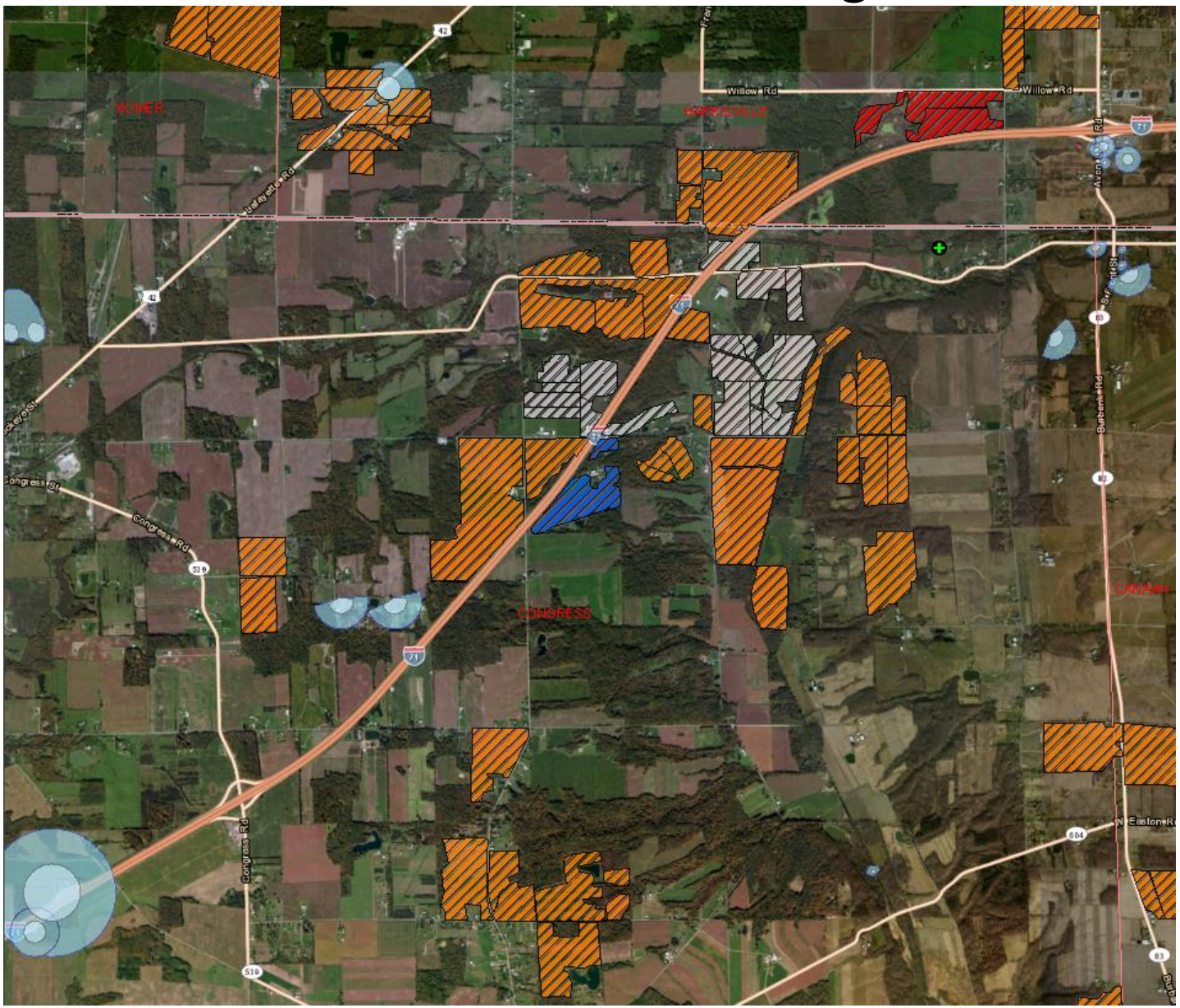
Ohio Environmental Protection Agency

If your site is not authorized…

- New Site Authorizations
  - Submit completed beneficial use site authorization requests as soon as you know a new site needs to be authorized.
  - Sites are reviewed in the order they are received.
  - It takes Ohio EPA a minimum of 30 days to review a site request and issue a site authorization letter.

Ohio Environmental Protection Agency

Ohio EPA Site Tracking



Are your soil samples current?

- Soil samples must be less than 3 years old.

- Soil pH –
  - Above 5.5

- Soil Phosphorus
  - Bray- Kurtz – P1
  - Mehlich 3

Report No. F12325-0653
Account No. 39514

A & L GREAT LAKES LABORATORIES, INC.
3505 Conestoga Drive • Fort Wayne, Indiana 46808 • 260-483-4759 • Fax 260-483-5274
www.algreatlakes.com • lab@algreatlakes.com
QUALITY ANALYSES FOR INFORMED DECISIONS®

To: ALLOWAY
1101 N. COLE STREET
LIMA, OH 45805-2003

For: L12-19922

Attn: KATHY WHITE

Date Received: 11/20/2012 Date Reported: 11/26/2012 **SOIL TEST REPORT** Page: 1 of 1

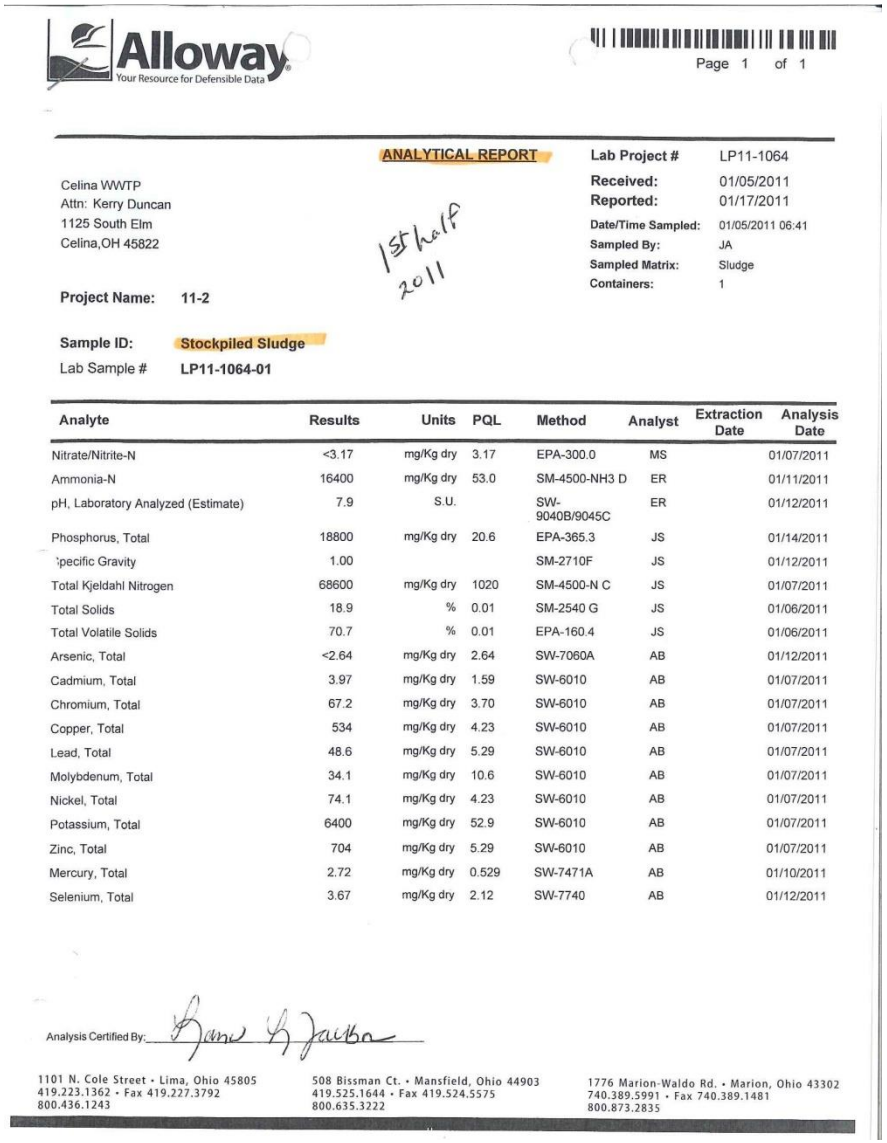
Sample ID	Lab Number	Organic Matter %	Phosphorus Bray P1 Equiv ppm-P	Phosphorus Bray P2 ppm-P	Potassium K ppm	Magnesium Mg ppm	Calcium Ca ppm	Sodium Na ppm	pH Soil pH	pH Buffer pH	Cation Exchange Capacity meq/100g	Percent Cation Saturation % K	% Mg	% Ca	% H	% Na
01	26672	3.3	25 *M*		137 *M*	270 *H*	1500 *M*		6.4	6.9	11.3	3.1	19.9	66.4	10.6	
02	26673	3.1	48 *H*		108 *M*	235 *H*	1800 *M*		6.6	6.9	12.4	2.2	15.7	72.4	9.7	

VL = VERY LOW *L* = LOW *M* = MEDIUM *H* = HIGH *VH* = VERY HIGH

Sample ID	Sulfur S ppm	Zinc Zn ppm	Manganese Mn ppm	Iron Fe ppm	Copper Cu ppm	Boron B ppm	Soluble Salts mmhos/cm	Nitrate NO3-N ppm	Ammonium NH4-N ppm	Bicarb-P P ppm				Comments

Ohio Environmental Protection Agency

Have you sampled the biosolids?



Alloway
Your Resource for Defensible Data

Page 1 of 1

ANALYTICAL REPORT

Lab Project # LP11-1064
Received: 01/05/2011
Reported: 01/17/2011

Celina WWTP
Attn: Kerry Duncan
1125 South Elm
Celina,OH 45822

1st half 2011

Date/Time Sampled: 01/05/2011 06:41
Sampled By: JA
Sampled Matrix: Sludge
Containers: 1

Project Name: 11-2

Sample ID: Stockpiled Sludge
Lab Sample # LP11-1064-01

Analyte	Results	Units	PQL	Method	Analyst	Extraction Date	Analysis Date
Nitrate/Nitrite-N	<3.17	mg/Kg dry	3.17	EPA-300.0	MS		01/07/2011
Ammonia-N	16400	mg/Kg dry	53.0	SM-4500-NH3 D	ER		01/11/2011
pH, Laboratory Analyzed (Estimate)	7.9	S.U.		SW-9040B/9045C	ER		01/12/2011
Phosphorus, Total	18800	mg/Kg dry	20.6	EPA-365.3	JS		01/14/2011
Specific Gravity	1.00			SM-2710F	JS		01/12/2011
Total Kjeldahl Nitrogen	68600	mg/Kg dry	1020	SM-4500-N C	JS		01/07/2011
Total Solids	18.9	%	0.01	SM-2540 G	JS		01/06/2011
Total Volatile Solids	70.7	%	0.01	EPA-160.4	JS		01/06/2011
Arsenic, Total	<2.64	mg/Kg dry	2.64	SW-7060A	AB		01/12/2011
Cadmium, Total	3.97	mg/Kg dry	1.59	SW-6010	AB		01/07/2011
Chromium, Total	67.2	mg/Kg dry	3.70	SW-6010	AB		01/07/2011
Copper, Total	534	mg/Kg dry	4.23	SW-6010	AB		01/07/2011
Lead, Total	48.6	mg/Kg dry	5.29	SW-6010	AB		01/07/2011
Molybdenum, Total	34.1	mg/Kg dry	10.6	SW-6010	AB		01/07/2011
Nickel, Total	74.1	mg/Kg dry	4.23	SW-6010	AB		01/07/2011
Potassium, Total	6400	mg/Kg dry	52.9	SW-6010	AB		01/07/2011
Zinc, Total	704	mg/Kg dry	5.29	SW-6010	AB		01/07/2011
Mercury, Total	2.72	mg/Kg dry	0.529	SW-7471A	AB		01/10/2011
Selenium, Total	3.67	mg/Kg dry	2.12	SW-7740	AB		01/12/2011

Analysis Certified By: Jane L Jacobs

1101 N. Cole Street • Lima, Ohio 45805
419.223.1362 • Fax 419.227.3792
800.436.1243

508 Bissman Ct. • Mansfield, Ohio 44903
419.525.1644 • Fax 419.524.5575
800.635.3222

1776 Marion-Waldo Rd. • Marion, Ohio 43302
740.389.5991 • Fax 740.389.1481
800.873.2835

- Metals
- Pathogens
  - Fecal Coliform
- Nutrients
  - TKN
  - Ammonia
  - Phosphorus
  - Potassium

Ohio Environmental Protection Agency

Screening

- By July 1, 2015, any treatment plant who wishes to beneficially use biosolids must have a means of screening out manufactured inerts from the influent sewage and septage **or** sewage sludge.

- This may be accomplished through fine screening (5/8" max aperture, but the finer the better) or other means approved by the Director.

Ohio Environmental Protection Agency

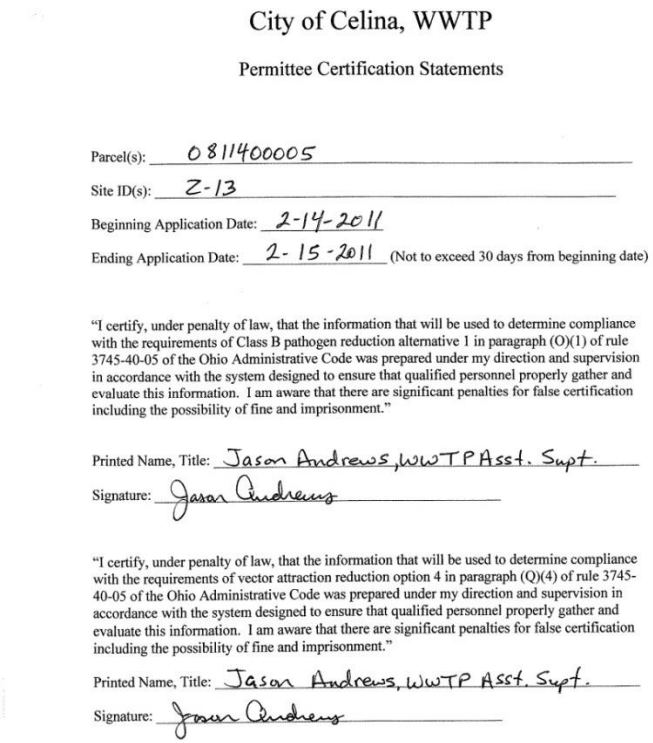
Pathogen Reduction	Vector Attraction Reduction
P1 – Geometric Mean of 7 Fecal Coliform Samples	VAR1 – 38% Volatile Solids Reduction
P2 – Aerobic Digestion	VAR2 – Bench Scale Anaerobic Digestion
P3 – Air Drying	VAR3 – Bench Scale Aerobic Digestion
P4 – Anaerobic Digestion	VAR4 – Specific Oxygen Uptake Rate
P5 – Class B Composting	VAR5 – Aerobic process Time and Temperature
P6 – Lime Treatment	VAR6 – Lime Treatment
P7 – Equivalent Process to Significantly Reduce Pathogens	VAR7 – Greater Than or Equal to 75% Solids
P8 – Time and Temperature Regime	VAR8 – Greater Than or Equal to 90% Solids
P9 – High pH and High Temperature Process	VAR9 – Injection
P10 – Exceptional Quality Composting	VAR10 – Immediate Incorporation
P11 – Heat Drying	
P12 – Thermophilic Aerobic Digestion	
P13 – Beta Ray Irradiation	
P14 – Gamma Ray Irradiation	
P15 – Pasteurization	
P16 – Equivalent Process to Further Reduce Pathogens	

Exceptional Quality Biosolids

Note: Class B Biosolids can utilize any pathogen reduction alternative and vector attraction option.

Do you have your certification statements?

- Certify that you have reviewed the treatment records and sampling results to verify that pathogen reduction alternative and vector attraction reduction options have been met.



City of Celina, WWTP

Permittee Certification Statements

Parcel(s): 0811400005

Site ID(s): Z-13

Beginning Application Date: 2-14-2011

Ending Application Date: 2-15-2011 (Not to exceed 30 days from beginning date)

"I certify, under penalty of law, that the information that will be used to determine compliance with the requirements of Class B pathogen reduction alternative 1 in paragraph (O)(1) of rule 3745-40-05 of the Ohio Administrative Code was prepared under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate this information. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment."

Printed Name, Title: Jason Andrews, WWTP Asst. Supt.

Signature: Jason Andrews

"I certify, under penalty of law, that the information that will be used to determine compliance with the requirements of vector attraction reduction option 4 in paragraph (Q)(4) of rule 3745-40-05 of the Ohio Administrative Code was prepared under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate this information. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment."

Printed Name, Title: Jason Andrews, WWTP Asst. Supt.

Signature: Jason Andrews

Ohio Environmental Protection Agency

Agronomic Rates

"Agronomic rate" means a rate of application of nutrients from any source to the land or an amount of nutrients removed by crop based on:

(1) Nutrient content of the biosolids to be applied;
(2) Nutrient needs of the current or planned crops; and
(3) Nutrient holding capacity of the soil.

Ohio Environmental Protection Agency

Have you calculated the Agronomic Rate?

- Beginning July 2013, beneficial users have to evaluate phosphorus loadings as well as nitrogen loadings for beneficial use.

- The limits on application of phosphorus are based on the phosphorus soil tests for the beneficial use site.

Ohio Environmental Protection Agency

Ohio EPA's Agronomic Rate Calculation Spreadsheet!

Under "Compliance Tools" at:
http://epa.ohio.gov/dsw/sludge/biosolid.aspx

Ohio Environmental Protection Agency

Biosolids Data and Beneficial Use Methods

Ammonia Nitrogen		mg/kg
Total Kjeldahl Nitrogen		mg/kg
Total Phosphorus		mg/kg
Organic Nitrogen	0.00	lbs/ton
Available Nitrogen	0.00	lbs/ton
Phosphate (P_2O_5)	#N/A	lbs/ton
Will Immediate Incorporation / Injection be performed?		

Beneficial Use Site Information

Soil Phosphorus		ppm				
	#N/A	ppm				
Please note that the agronomic rates and phosphorus index have been calculated within the *Calculated Agronomic Rates* section; however, based upon the above provided *Soil Phosphorus* result, you must utilize the most limiting factor or the *Phosphorus Index*:	#N/A					
County						
Soil Type						
Hydrologic Soil Group						
Year 1	Crop 1	Crop 2	Crop 3	Crop 4	Crop 5	
Crop Type(s)						
Expected Crop Yield(s)(bu/acre or tons/acre)						
Year 2	Crop 1	Crop 2	Crop 3	Crop 4	Crop 5	
Crop Type(s)						
Expected Crop Yield(s)(bu/acre or tons/acre)						
Year 3	Crop 1	Crop 2	Crop 3	Crop 4	Crop 5	
Crop Type(s)						
Expected Crop Yield(s)(bu/acre or tons/acre)						
Year 4	Crop 1	Crop 2	Crop 3	Crop 4	Crop 5	
Crop Type(s)						
Expected Crop Yield(s)(bu/acre or tons/acre)						
Year 5	Crop 1	Crop 2	Crop 3	Crop 4	Crop 5	
Crop Type(s)						
Expected Crop Yield(s)(bu/acre or tons/acre)						
Crop Nitrogen Requirements (Year 1)		lbs/acre				
Existing Available Nitrogen		lbs/acre				
Non-Biosolids Nitrogen Application		lbs/acre				
Phosphate (P_2O_5) Fertilizer Application		lbs/acre				
Non-Biosolids Organic Phosphate (P_2O_5) Application		lbs/acre				
Biosolids Phosphate (P_2O_5) Beneficial Use	#N/A	lbs/acre				
Total Organic Phosphate (P_2O_5) Fertilizer Application	#N/A	lbs/acre				

Phosphorus Index

			Subvalue
Soil Loss	#N/A	tons/acre/year	#N/A
Connectivity to "waters of the State"			#N/A
Runoff Class - Slope Range			#N/A
Soil Phosphorus			#N/A
Application - Phosphate (P_2O_5) Fertilizer			0
Method - Phosphate (P_2O_5) Fertilizer			#N/A
Application - Organic Phosphate (P_2O_5) Fertilizer			#N/A
Method - Organic Phosphate (P_2O_5) Fertilizer			#N/A
Does runoff flow through a filter strip designed per USDA Ohio-NRCS Field Office Technical Guide Standard 393?			#N/A
Total Phosphorus Index			**#N/A**

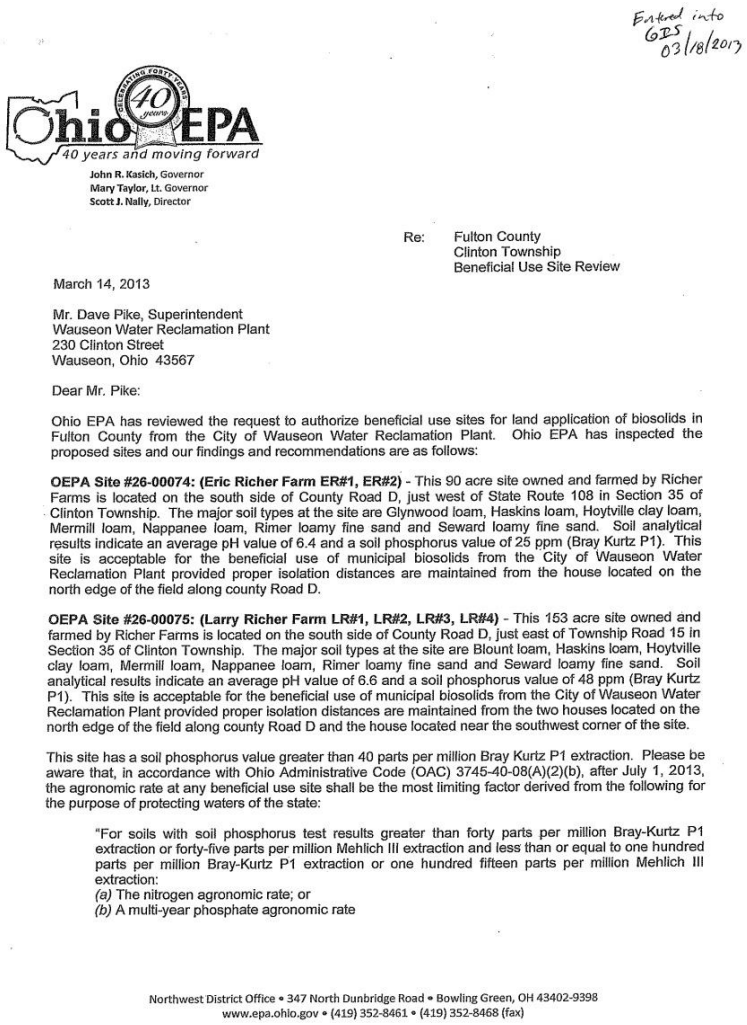
Calculated Agronomic Rates

Nitrogen Agronomic Rate	#DIV/0!	dry tons/acre
i. Calculated Agronomic Rate	#DIV/0!	dry tons/acre
Single Year Phosphate Agronomic Rate	#N/A	dry tons/acre
Multi-Year Phosphate Agronomic Rate	#N/A	dry tons/acre
Phosphorus Index	#N/A	

Beneficial Use Site Records

Quantity of Biosolids Beneficially Used		dry tons			
Phosphate (P_2O_5) Beneficially Used Per Acre	#DIV/0!	lbs/acre			
Acreage					
Date Biosolids Delivered to Beneficial Use Site					
Dates of Beneficial Use		to			
Total Days Biosolids Stored at Beneficial Use Site	0.00	Days			
Date Signage Posted at Beneficial Use Site			☐ Yes	Is a permanent sign posted at the beneficial use site?	
Date Signage Removed from Beneficial Use Site			☐ No		

Step 1 – General Information



Entered into GIS 03/18/2013

Ohio EPA
40 years and moving forward

John R. Kasich, Governor
Mary Taylor, Lt. Governor
Scott J. Nally, Director

Re: Fulton County
Clinton Township
Beneficial Use Site Review

March 14, 2013

Mr. Dave Pike, Superintendent
Wauseon Water Reclamation Plant
230 Clinton Street
Wauseon, Ohio 43567

Dear Mr. Pike:

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This site has a soil phosphorus value greater than 40 parts per million Bray Kurtz P1 extraction. Please be aware that, in accordance with Ohio Administrative Code (OAC) 3745-40-08(A)(2)(b), after July 1, 2013, the agronomic rate at any beneficial use site shall be the most limiting factor derived from the following for the purpose of protecting waters of the state:

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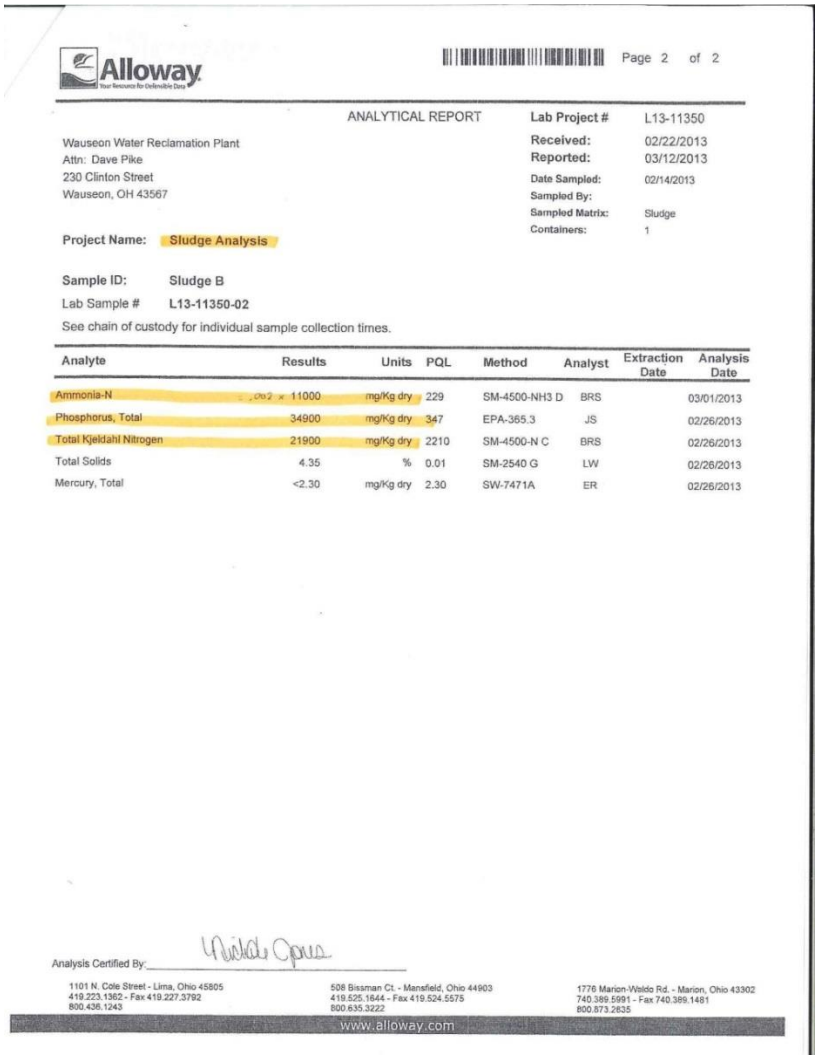
(a) The nitrogen agronomic rate; or
(b) A multi-year phosphate agronomic rate

Northwest District Office • 347 North Dunbridge Road • Bowling Green, OH 43402-9398
www.epa.ohio.gov • (419) 352-8461 • (419) 352-8468 (fax)

- Enter Ohio EPA Site #
- Enter generator "Field ID"
- Enter "Generator Name"

Ohio Environmental Protection Agency

Step 2– Biosolids Data



Alloway

Page 2 of 2

ANALYTICAL REPORT

Lab Project # L13-11350
Received: 02/22/2013
Reported: 03/12/2013
Date Sampled: 02/14/2013
Sampled By:
Sampled Matrix: Sludge
Containers: 1

Wauseon Water Reclamation Plant
Attn: Dave Pike
230 Clinton Street
Wauseon, OH 43567

Project Name: Sludge Analysis

Sample ID: Sludge B
Lab Sample # L13-11350-02

See chain of custody for individual sample collection times.

Analyte	Results	Units	PQL	Method	Analyst	Extraction Date	Analysis Date
Ammonia-N	11000	mg/Kg dry	229	SM-4500-NH3 D	BRS		03/01/2013
Phosphorus, Total	34900	mg/Kg dry	347	EPA-365.3	JS		02/26/2013
Total Kjeldahl Nitrogen	21900	mg/Kg dry	2210	SM-4500-N C	BRS		02/26/2013
Total Solids	4.35	%	0.01	SM-2540 G	LW		02/26/2013
Mercury, Total	<2.30	mg/Kg dry	2.30	SW-7471A	ER		02/26/2013

Analysis Certified By:

1101 N. Cole Street - Lima, Ohio 45805
419.223.1362 - Fax 419.227.3792
800.436.1243

508 Bissman Ct. - Mansfield, Ohio 44903
419.525.1644 - Fax 419.524.5575
800.635.3222

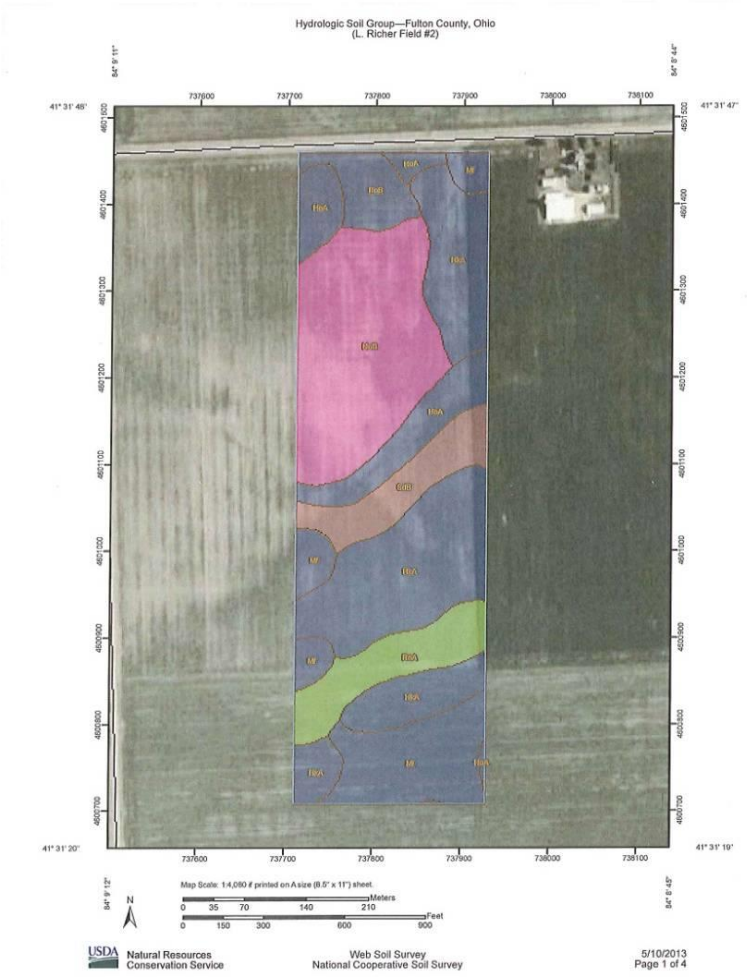
1776 Marion-Waldo Rd. - Marion, Ohio 43302
740.389.5991 - Fax 740.389.1481
800.873.2635

www.alloway.com

- Enter analytical results for the nutrients in the biosolids.
- Answer question - “will immediate incorporation or injection be performed?”

Ohio Environmental Protection Agency

Step 3 – Beneficial Use Site Info



- Enter Soil Phosphorus Results & Analysis Method.
- Select Hydrologic Soil Group from the drop down box.
- Find using the USDA NRCS Web Soil Survey.

Ohio Environmental Protection Agency

Step 4 – Enter Crop Information

- Crops that will be grown (1-5 year rotation)
- Crop Nitrogen Requirement
- Account for residual available Nitrogen
  Refer to: *Tri-State Fertilizer Recommendations*
  ohioline.osu.edu/e2567/index.html
- Account for Non-Biosolids Fertilizer Application Rates

Ohio Environmental Protection Agency

Residual Nitrogen Values

Previous Crop	Nitrogen Credits (lbs/acre)
Corn, small grains	0
Soybeans	30
Grass sod	40
Established forage legume	=40+20*(plants/ft^2)
Annual legume cover crop	30

Ohio Environmental Protection Agency

Crop Information

- First year crop is corn-grain, expected yield of 200 bushels/acre.
- Second year crop is soybeans, expected yield of 60 bushels/acre.
- Third year crop is wheat, expected yield of 90 bushels/acre.

Ohio Environmental Protection Agency

Which Rate to Use?

The soil phosphorus value is 48 ppm so we must use the most limiting of:

- Multi-year phosphate rate = 2.3 dry tons/acre
- Nitrogen Agronomic Rate = 7.0 dry tons/acre

Use Multi-year phosphate agronomic rate!

Ohio Environmental Protection Agency

Agronomic Rate Record Keeping

- Agronomic rate description
  - Must have documentation showing that equipment utilized for biosolids spreading has been calibrated.
  - Example would be calculating volume of spreader, pull at certain speed/rpm/gear until empty, measure area covered.

Ohio Environmental Protection Agency

Signage Requirements

- Signage
  - Signs must be posted at all Class B biosolids beneficial use sites at least one week prior to delivery of Class B biosolids to the site.
  - Within 25ft. of field entrance from the public road
  - “Notice: Ohio EPA Authorized Class B Biosolids Beneficial Use Site. Trespassing Prohibited.”

Ohio Environmental Protection Agency

Signage Posting Records

City of Celina, Ohio WWTP 2011 Class B Biosolids
Beneficial Use Site Signage Record

Signage to be posted for 30 days after end of benificial use event

NPDES Permit #: 2PD00033*OD

BENIFICIAL USE EVENT NUMBER	BENIFICIAL USE EVENT DATES		DATE BIOSOLIDS SIGN IS POSTED	DATE BIOSOLIDS SIGN IS SCHEDULED TO BE REMOVED	DATE BIOSOLIDS SIGN IS REMOVED
1	START	2/14/2011	2/14/2011	3/16/2011	
	END				
	START			1/30/1900	
	END				
	START			1/30/1900	
	END				
	START			1/30/1900	
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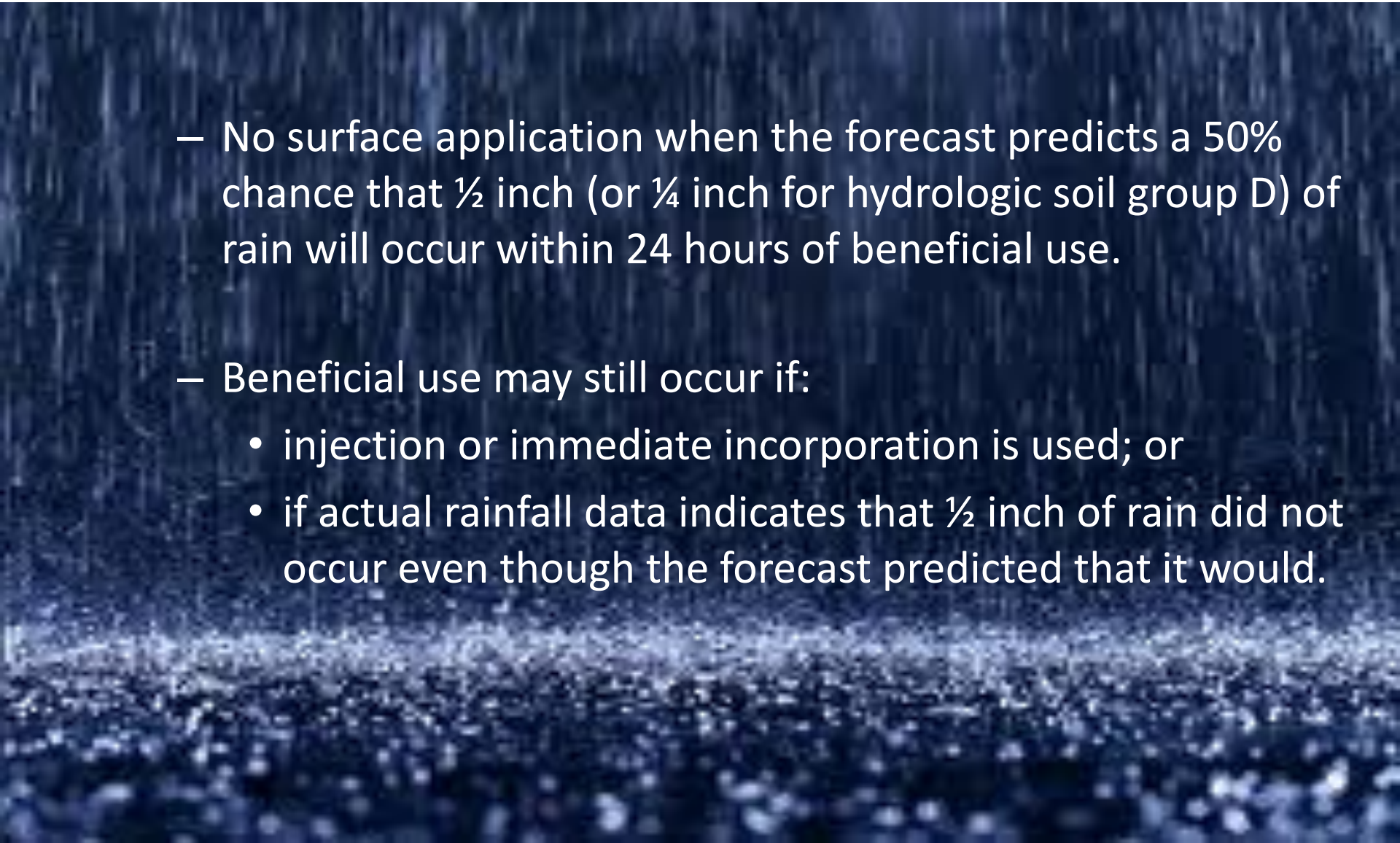
	START			1/30/1900	
	END				
	START			1/30/1900	
	END				
	START			1/30/1900	
	END				

Record of the dates the signs are posted and removed shall be maintained.

Ohio Environmental Protection Agency

Precipitation Restrictions for Class B Biosolids



- No surface application when the forecast predicts a 50% chance that ½ inch (or ¼ inch for hydrologic soil group D) of rain will occur within 24 hours of beneficial use.

- Beneficial use may still occur if:
  - injection or immediate incorporation is used; or
  - if actual rainfall data indicates that ½ inch of rain did not occur even though the forecast predicted that it would.

http://www.noaa.gov/ | epa.ohio.gov | farming on sloped land in ... | NOAA - National Ocea... | Close
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NOAA NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

UNITED STATES DEPARTMENT OF COMMERCE

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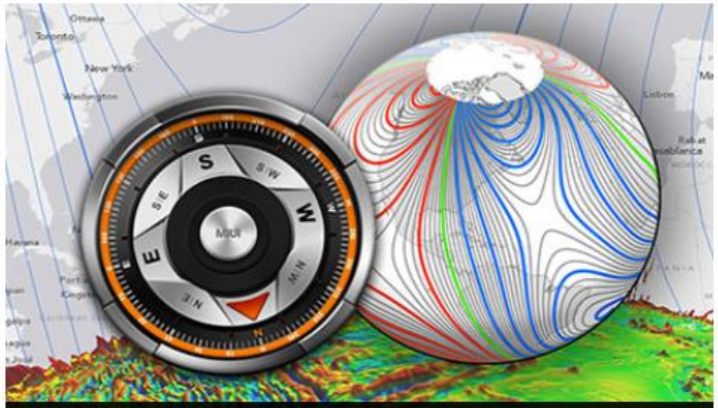
Law Enforcement Updates



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See how NOAA data, information help you live well & safely on a changing planet

More »

IN THE SPOTLIGHT

- Severe weather is expected across the central and southern Plains on Wednesday
- March global temperature is fourth highest on record and year-to-date seventh warmest on record
- Contiguous U.S. experienced coldest March since 2002

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All Releases

- Coast Survey ship finds 19th century shipwreck off Golden Gate Bridge — again
- Expansion proposal for Gulf of the Farallones and Cordell Bank national marine sanctuaries
- 'Virtual explorers' invited to the depths of the Gulf of Mexico on NOAA expedition
- WMO retires Ingrid and Manuel for Atlantic and eastern North Pacific basins
- Oyster aquaculture could significantly improve Potomac River estuary water quality

GET OUR WALLPAPER AND POSTER

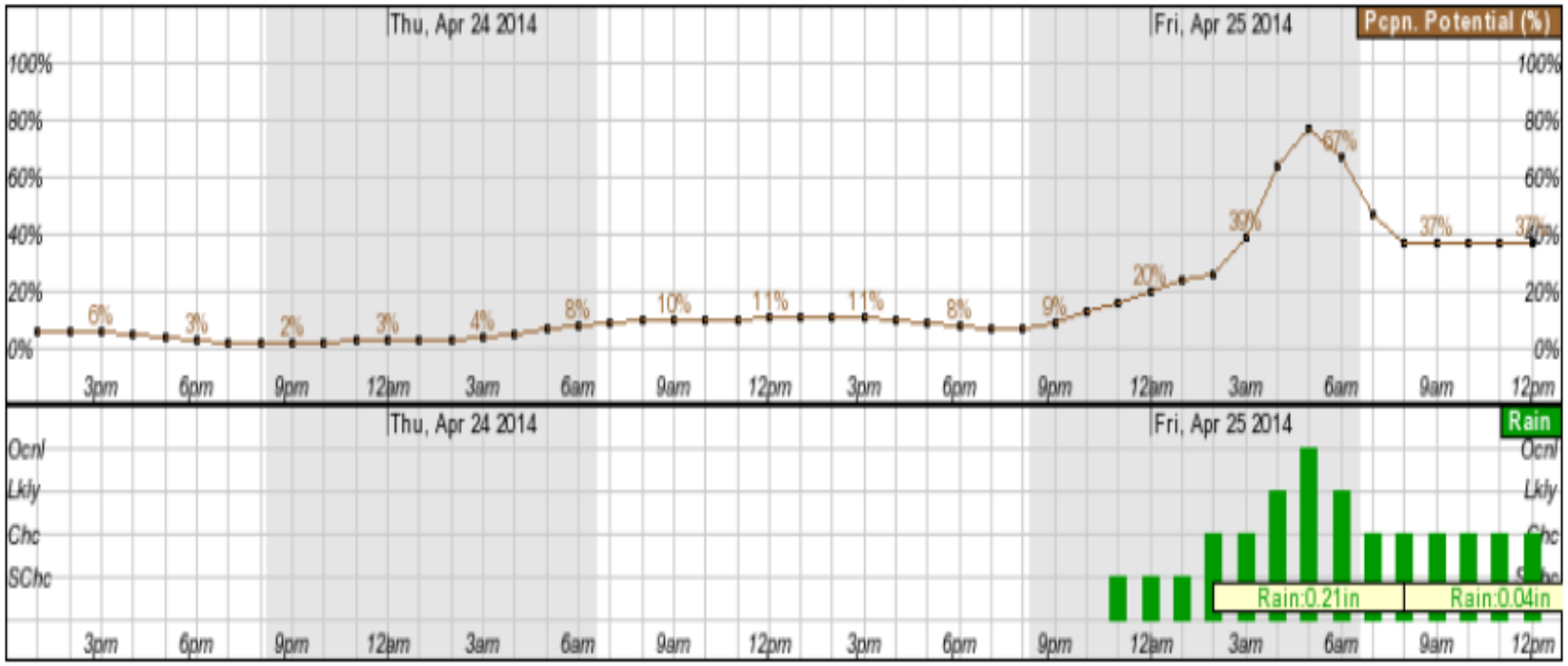
12:47 PM

Hourly Weather Forecast Graph

[dashes/dots] | [b/w] | [hide menu]

Weather Elements		Weather/Precipitation
☐ Temperature (°F)	☐ Surface Wind mph	☐ Thunder
☐ Dewpoint (°F)	☐ Sky Coverage	☑ Rain
☐ Wind Chill (°F)	☑ Precipitation Potential	☐ Snow
	☐ Relative Humidity	☐ Freezing Rain
		☐ Sleet

48-Hour Period Starting: 1pm Wed, Apr 23 2014 Submit Back 2 Days Forward 2 Days

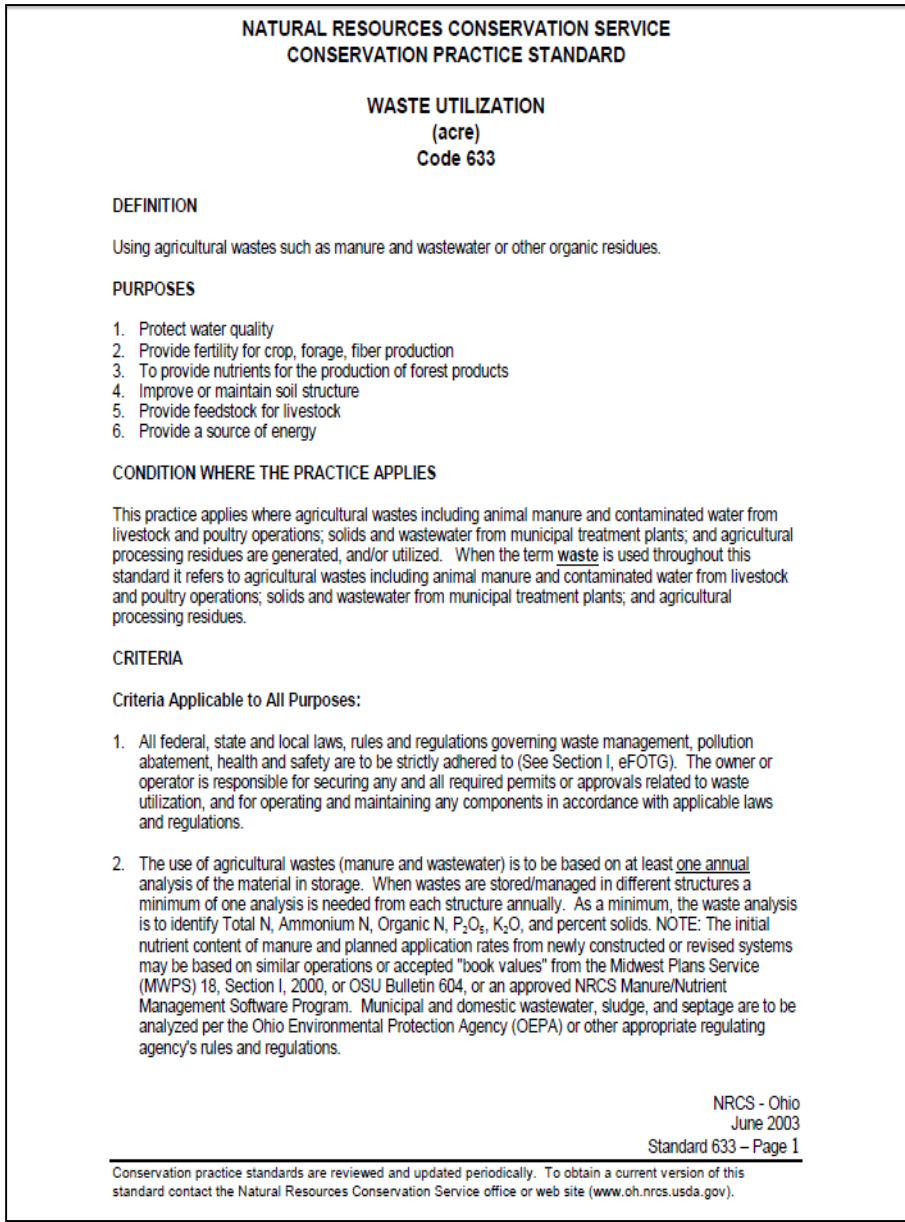


Friday, April 25 at 11am
Precipitation Potential: 37%
Rain: Chance (30%-50%)

Frozen Snow Covered Ground

- Surface application of bulk biosolids to land from December 15 through March 1 is prohibited, unless injected or incorporated within 24 hours of application.

- Surface application of bulk biosolids to frozen and snow covered ground during the rest of the year will have to be in accordance with NRCS Waste Utilization Code 633.
  - Greater than 90% ground cover and not covered with snow/ice;
  - <5,000 gallons/acre if liquid;
  - <20 contiguous acres;
  - >200 feet from “waters of the state”;
  - <6% slope;
  - Visual outlet (drainage and tile) monitoring; and
  - <26 mg/L ammonia nitrogen at discharge.



NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE STANDARD

WASTE UTILIZATION
(acre)
Code 633

DEFINITION

Using agricultural wastes such as manure and wastewater or other organic residues.

PURPOSES

1. Protect water quality
2. Provide fertility for crop, forage, fiber production
3. To provide nutrients for the production of forest products
4. Improve or maintain soil structure
5. Provide feedstock for livestock
6. Provide a source of energy

CONDITION WHERE THE PRACTICE APPLIES

This practice applies where agricultural wastes including animal manure and contaminated water from livestock and poultry operations; solids and wastewater from municipal treatment plants; and agricultural processing residues are generated, and/or utilized. When the term waste is used throughout this standard it refers to agricultural wastes including animal manure and contaminated water from livestock and poultry operations; solids and wastewater from municipal treatment plants; and agricultural processing residues.

CRITERIA

Criteria Applicable to All Purposes:

1. All federal, state and local laws, rules and regulations governing waste management, pollution abatement, health and safety are to be strictly adhered to (See Section I, eFOTG). The owner or operator is responsible for securing any and all required permits or approvals related to waste utilization, and for operating and maintaining any components in accordance with applicable laws and regulations.

2. The use of agricultural wastes (manure and wastewater) is to be based on at least one annual analysis of the material in storage. When wastes are stored/managed in different structures a minimum of one analysis is needed from each structure annually. As a minimum, the waste analysis is to identify Total N, Ammonium N, Organic N, P_2O_5, K_2O, and percent solids. NOTE: The initial nutrient content of manure and planned application rates from newly constructed or revised systems may be based on similar operations or accepted "book values" from the Midwest Plans Service (MWPS) 18, Section I, 2000, or OSU Bulletin 604, or an approved NRCS Manure/Nutrient Management Software Program. Municipal and domestic wastewater, sludge, and septage are to be analyzed per the Ohio Environmental Protection Agency (OEPA) or other appropriate regulating agency's rules and regulations.

Conservation practice standards are reviewed and updated periodically. To obtain a current version of this standard contact the Natural Resources Conservation Service office or web site (www.oh.nrcs.usda.gov).

Field Tile Monitoring

- If liquid biosolids are to be beneficially used, tile outlet monitoring shall occur before, during and after beneficial use.
- Rates are limited to ½ inch or 13,000 gallons/acre/beneficial use event.
- Tools shall be used to disrupt preferential flow pathways during beneficial use or all tile outlets shall be plugged.
- If injected, only inject deep enough to cover biosolids with soil.
- Have tools available onsite to plug tiles, if necessary!

Ohio Environmental Protection Agency

Now Lets Land Apply!

Ohio Environmental Protection Agency

Record Keeping

- Notice and Necessary Information
  - The biosolids generator is required to provide the land applier a copy of metal testing results, PR and VAR results.
  - The land applier is a required to provide the farm operator and land owner information a copy of the application rate and nutrients in the biosolids that were beneficially used.

Ohio Environmental Protection Agency

Everyday WWTP
50 W. Town St., Columbus, OH 43215
(614) 644-2018
NPDES Permit #6PA00000

The material you are receiving is or contains biosolids that have been treated to meet the requirements in Chapter 3745-40 of the Ohio Administrative Code.

Most recent analysis of biosolids:

TKN =	35,000 mg/kg	Hg=	<1 mg/kg	As=	24 mg/kg	Cu=	500 mg/kg
NH_4=	7,000 mg/kg	Mb=	15 mg/kg	Cd=	<1 mg/kg	Pb=	75 mg/kg
Total P=	18,000 mg/kg	Zn=	1,300 mg/kg	Se=	4 mg/kg	Ni=	30 mg/kg
Total K=	3,000 mg/kg						

Pathogen Reduction Alternative P-1, Geometric Mean of Seven Fecal Colifrom Samples, has been met.
Vector Attraction Reduction Option VAR-1, 38% Volatile Solids Reduction, has been met.

The biosolids you are receiving are Class B, and shall be further treated, stored, transferred, disposed of, or beneficially used in accordance with Chapter 3745-40 of the Ohio Administrative Code, which may be found here:
http://www.epa.state.oh.us/dsw/rules/3745_40.aspx

Treatment Plant Official Name (printed) _____ Treatment Plant Official Name (signature) _____ Date _____

Allen County Ohio

SANITARY ENGINEERING DEPARTMENT
Stephen M. Kayatin, P.E.
Sanitary Engineer

♦204 N. Main Street, Suite 301, Lima, Ohio 45801♦Phone: 419-228-3700 ex.8866♦Fax: 419-229-3297♦Website: allencountyohio.com/san/san.html♦

Date 5-25-07

RECEIVED
MAR 20 2008
OHIO E.P.A.
N.W.D.O.

Dwain Metzger
3794 N. Cable Rd.
Lima, Ohio 45804

Dear Mr. Metzger

On May 7,8,9,10, 2006, biosolids from Shawnee II and Tank 4 at Am. Bath Wastewater Treatment Plant, Ohio EPA Permit 2PK00002*HD and 2PH00007*HD, were applied to the field located on Cole St. next to our driveway. Biosolids are a by-product of wastewater treatment.

Analysis of the biosolids showed the following concentrations:

	Shawnee	Am. Bath Tank 4
Total Kjeldahl Nitrogen:	81,900 mg/kg	60,900 mg/kg
Ammonia Nitrogen:	7,800 mg/kg	11,100 mg/kg
Total Phosphorous:	31,000 mg/kg	29,400 mg/kg
Total Potassium:	7,030 mg/kg	8,240 mg/kg

Application Rates applied to the site:

Available Nitrogen:	25.4 lbs/acre
Phosphorous:	88.0 lbs/acre
Potassium:	26.6 lbs/acre

The above information is supplied as a requirement of the Ohio EPA, Division of Surface Water, at 1-877-644-2001.

If you have any questions, please contact me at American-Bath Wastewater Treatment Plant, 3226 N. Cole St., Lima, Ohio 45801, or by phone at (419) 225-8048 Monday thru Friday between the hours of 7:30 am and 3:30 pm.

Sincerely,

Bill Griffin
Chief Sludge Operator
Allen County Sanitary Engineers

Ohio Environmental Protection Agency

Andrew Gall
Environmental Specialist II
Division of Surface Water
Biosolids Program
(419) 373-3003
andrew.gall@epa.ohio.gov

Ohio Environmental Protection Agency

Ohio EPA's Biosolid Program Contacts

Chris Moody
Northeast District Office
Division of Surface Water
2110 East Aurora Road
Twinsburg, OH 44087

Phone: (330) 963-1118
Fax: (330) 487-0769
Email: chris.moody@epa.ohio.gov

Andy Gall
Northwest District Office
Division of Surface Water
347 North Dunbridge Road
Bowling Green, OH 43402

Phone: (419) 373-3003
Fax: (419) 352-8468
Email: andrew.gall@epa.ohio.gov

Betsy VanWormer
Central, Southeast, and Southwest District Offices
Division of Surface Water
P.O. Box 1049
Columbus, Ohio 43216-1049

Phone: (614) 644-2150
Fax: (614) 644-2745
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