



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

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Eric J. Holcomb

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Commissioner

Instructions for Reporting the Monthly Land Application of Pollutant-Bearing Water (PBW)

Before you begin to land apply, be sure to review the permit requirements for your facility. Your permit may have additional information that needs to be reported and is not outlined in these instructions. Please note that these are generic instructions to cover the basics for filling out the IDEM monthly report forms. To obtain the report forms document, please contact either Jeff Harmon at (317) 232-8735 or by email at jharmon@idem.in.gov, or the permit manager assigned to your facility.

The pollutant-bearing water excel document, titled “EZLAPBW”, is comprised of 3 pages.

- a. The first page is titled “Land Application Monthly Report – Pollutant-Bearing Water”. It is located under the first tab at the bottom of the screen labeled *Monthly Report*. This page will need to be submitted to IDEM.
- b. The second page is titled “Land Application Site Activity Report – Pollutant-Bearing Water”. It is located under the second tab at the bottom of the screen labeled *Site Activity*. This page will also need to be submitted to IDEM.
- c. The third page is titled “Land Application Nutrient Summary – Pollutant-Bearing Water”. It is located under the third tab at the bottom of the screen labeled *Nutrient Summary*. This page DOES NOT need to be submitted to IDEM. This page was created to assist you, and the farmer, to keep track of your heavy metal and nutrient summary for each site.

Please follow the red numbers on the enclosed documents for instructions on how to fill out each page.

Page 1- Land Application Monthly Report – Pollutant-Bearing Water

1. Enter the month for which you are reporting.
2. Enter the facility name.
3. Enter the year for which you are reporting.
4. Enter your land application permit number.
5. If the land application of PBW **did not** occur during the month, place an “X” in the box and proceed to number 8.
6. If PBW was land applied during the month, place an “X” in the box.
7. Enter the total number of gallons applied for the entire month.

- a. If land application of PBW occurred at multiple sites, add the total gallons applied for each site.
- 8. The person filling out the report must provide a hand-written signature if land activity occurred. Please note, this person must have signature authority from the permit holder and be on file with the IDEM Land Application office.
- 9. Print the name of the person filling out the report.
- 10. Provide the employee title of the person filling out the report.
- 11. Provide the date the report was filled out.

Example 1:

Clear
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Page

Indiana Department of Environmental Management
Solid Waste Permits Section - Office of Land Quality
Land Application Monthly Report - Pollutant-Bearing Water
>>Complete and submit this form to IDEM each report month<<

Clear
All
Pages

Month:	March	Year:	2017
Permittee	Water's Wet Treatment Plant	L.A. Permit No. IN LA:	999999
Disposal Summary:			Gallons
<input type="checkbox"/> No pollutant-bearing water was disposed this month			NA
<input checked="" type="checkbox"/> Pollutant-bearing water was land applied this month			60,500
I hereby certify that to the best of my knowledge and understanding this report is complete and accurate.			
_____ Signature		_____ Nikki Jeffers Printed Name	
_____ Operations Manager Title		_____ April 5, 2017 Date	

Page 2- Land Application Site Activity Report – Pollutant-Bearing Water

1. Enter the month that land application took place.
2. Enter the facility name.
3. Enter your land application permit number.
4. Enter the year that land application took place.
5. Enter the name of the site in which land application occurred. Enter the ID exactly as it is identified in your permit.
6. Enter the total number of acres for the site.
7. Enter the total number of acres that was used for land application.

For *Loading Data*, the numbers on the far left of the box refer to the dates in a month. Only enter information corresponding to that specific day in which land application occurred.

Example 2:

								Acres Used		
Loading Data:			Method	Daily Analysis			Weekly	Monthly	L W A	
Date:	Gallons Applied	Acres Used	Used* 1 or 2	Susp Solids	Fecal Coliform	Residual Chlorine	Analysis 1-5	Analysis 1 or 2		
1										
2										
3										
4										
5										
6	76400	26	1				1	1		
7	94500	26	1				1	1	*E	
8									M	
9	83600	26	1				1	1		
10									Tc	
11									Ar	

8. Enter the total gallons applied for that day. If no land application occurred on that day, leave it blank.
9. Enter the total number of acres used for land application on that day.
10. Enter the method of application used, either 1 or 2. The two methods are listed at the bottom of the table, **1 refers to surface application, 2 refers to injection application.**

If you land apply domestic wastewater, you may be required to sample for suspended solids, fecal coliform, and/or residual chlorine. If you are not required to sample for these parameters, then skip numbers 11-13 and proceed to number 14.

11. If your permit requires sampling for suspended solids, enter the daily result.
12. If your permit requires sampling for fecal coliform, enter the daily result
13. If your permit requires sampling for residual chlorine, enter the daily result

Depending on your permit, you may be required to sample weekly for pH, BOD5, and/or volatile solids. If you are not required to sample for one or more of these parameters, then leave it blank. The numbers on the far left of the box refer to the weeks in a month.

Example 4:

Weekly Analysis 1-5	Monthly Analysis 1 or 2	Lab Data: <u>Weekly Analysis:</u> ANALYSIS #	DO NOT USE < IF NOT DETECTED ENTER DETECTION LIMIT!		
			pH	BOD5*	Vol. Solids*
1	1	1	7.4	20	326
1	1	2	7.4	25	288
1	1	3	7.3	17	270
1	1	4	7.7	8	474
1	1	5	7.5	11	380
2	1	*Enter BOD5 and Volatile Solids as mg/l wet weight			
2	1	<u>Monthly Analysis:</u>	ANALYSIS #		

14. Enter the pH value corresponding to the correct weekly analysis.
15. Enter the BOD5 value corresponding to the correct weekly analysis.
16. Enter the volatile solids value corresponding to the correct weekly analysis.
17. Enter the number that corresponds to the correct weekly analysis taken from the PBW land applied on that date.

According to your permit, you will be required to sample for nutrients every 30 days. This 30 days period can be a calendar month or any sliding 30 day period. There are two columns available to report nutrients to accommodate for different batches of wastewater or if more than one sample is analyzed during the calendar month. Enter the results from the additional analysis in the second column. *Please note that these values must be reported in mg/L wet weight.*

Example 5:

Weekly Analysis 1-5	Monthly Analysis 1 or 2	Lab Data: <u>Weekly Analysis:</u> ANALYSIS #	DO NOT USE < IF NOT DETECT ENTER DETECTION LIMIT!		
			pH	BOD5*	Vol. Solid:
1	1	1	7.4	20	
1	1	2	7.4	25	
1	1	3	7.3	17	
1	1	4	7.7	8	
1	1	5	7.5	11	
2	1	*Enter BOD5 and Volatile Solids as mg/l wet weight			
2	1	<u>Monthly Analysis:</u>	ANALYSIS #		
2	1		1	2	
2	1	Total N*	67.38		mg/l wet wt.
2	1	Ammonium N	11.54		mg/l wet wt.
2	1	Nitrate N	48.18		mg/l wet wt.
2	1	Phosphorus	0.34		mg/l wet wt.
3	1	Potassium	95.20		mg/l wet wt.
3	1	*Total N = Total Kjeldahl Nitrogen + Nitrate N			

18. Enter the values that correspond to the correct nutrient.
19. If you have a second analysis, enter the results for the parameters that correspond to the correct nutrient.
20. Enter the analysis number, 1 or 2, that corresponds to the monthly analysis taken from the PBW land applied on that date.

According to your permit, you will be required to sample annually for heavy metals. You must have the analysis in hand before you land apply. *Please note that these values must be reported in mg/L wet weight.*

21. Enter the values that correspond to the correct heavy metal.

According to your permit, you may be required to sample for additional parameters either annually or monthly.

22. Enter the value that corresponds to the appropriate PCB analysis.
23. Enter the value that corresponds to any additional analysis parameters.
24. Enter the value that corresponds to any additional analysis parameters.

The last boxes refer to the specific site on which land application took place.

25. Enter the projected crop you intend to fertilize, such as: corn, soybeans, hay/pasture, grain, or set aside/idle. Each of these types of crops has a specific Plant Available Nitrogen (PAN) Loading rate per acre that cannot be exceeded. See your permit for the PAN loading rates.
26. Place an "X" in the box if that is the appropriate answer.
27. Indicate who applied the additional biosolids, industrial waste products, and/or pollutant-bearing water on the site.
28. Place an "X" in the box if that is the appropriate answer.
29. Enter the date of the last soil analysis from the site. Soil analyses must be no more than 2 years old at the time of land application.
30. Enter the pH range from the most recent soil analysis. If the pH is less than 5.5, the soil pH must be adjusted using lime or a similar material before land application can take place.
31. If the soil pH was adjusted, enter the date on which it occurred.

Please see the completed examples below demonstrating how your Site Activity Report form should look.

Example 6:

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Indiana Department of Environmental Management
Solid Waste Permits Section - Office of Land Quality
Land Application Site Activity Report - Pollutant-Bearing Water
 >>Complete and submit this form to IDEM for each application site used during a report month<<

Month:	February	Year:	2017
Permittee:	Water's Wet Treatment Plant	Site ID:	Site 1
L.A. Permit No. IN LA:	999999	Acres Available:	0.91
		Acres Used This Month:	0.91

Date:	Loading Data:		Method Used* 1 or 2	Daily Analysis			Weekly Analysis 1-5	Monthly Analysis 1 or 2	Lab Data:	DO NOT USE < IF NOT DETECTED		
	Gallons Applied	Acres Used		Susp Solids	Fecal Coliform	Residual Chlorine				Weekly Analysis #	pH	BOD5*
1	3144	0.91	2	1			1	1	1	7.2	2	
2	2898	0.91	2	5			2	1	2	7.3	2	
3	2421	0.91	2	5			2	1	3	7.3	5	
4	3512	0.91	2	5			2	1	4	7.4	7	
5	3553	0.91	2	5			2	1	5	7.7	4	
6	2408	0.91	2	5			2	1				
7	3514	0.91	2	5			2	1				
8	3817	0.91	2	5			2	1				
9	3455	0.91	2	3			3	1				
10	3919	0.91	2	3			3	1				
11	3227	0.91	2	3			3	1				
12	2808	0.91	2	3			3	1				
13	2536	0.91	2	3			3	1				
14	3087	0.91	2	3			3	1				
15	3958	0.91	2	3			3	1				
16	1991	0.91	2	4			4	1				
17	2823	0.91	2	4			4	1				
18	3811	0.91	2	4			4	1				
19	3659	0.91	2	4			4	1				
20	3490	0.91	2	4			4	1				
21	3545	0.91	2	4			4	1				
22	3324	0.91	2	4			4	1				
23	2866	0.91	2	4			5	1				
24	2652	0.91	2	4			5	1				
25	2862	0.91	2	4			5	1				
26	2848	0.91	2	4			5	1				
27	2801	0.91	2	4			5	1				
28	2827	0.91	2	4			5	1				
29												
30												
31												

*Methods of Application: 1 = Surface, 2 = Injection

Weekly Analysis:	DO NOT USE < IF NOT DETECTED		
ANALYSIS #	ENTER DETECTION LIMIT!		
	pH	BOD5*	Vol. Solids*
1	7.2	2	
2	7.3	2	
3	7.3	5	
4	7.4	7	
5	7.7	4	

*Enter BOD5 and Volatile Solids as mg/l wet weight

Monthly Analysis:	ANALYSIS #		
	1	2	
Total N*	44.70		mg/l wet wt.
Ammonium N	41.00		mg/l wet wt.
Nitrate N	2.70		mg/l wet wt.
Phosphorus	6.10		mg/l wet wt.
Potassium	17.00		mg/l wet wt.

*Total N = Total Kjeldahl Nitrogen + Nitrate N

Annual Analysis:			
Arsenic	0.006		mg/l wet wt.
Cadmium	0.005		mg/l wet wt.
Copper	0.006		mg/l wet wt.
Lead	0.005		mg/l wet wt.
Mercury	0.000		mg/l wet wt.
Nickel	0.005		mg/l wet wt.
Selenium	0.005		mg/l wet wt.
Zinc	0.018		mg/l wet wt.

Other Analysis:			
PCB		0.03	mg/kg dry wt.
Other			
Other			

What is the projected crop(s) for which the above application(s) was intended to fertilize? Hay

If more than one crop is listed, indicate on the site-use map the areas planted, or to be planted, in each different type of crop.

Has this application site been used for land application of any biosolids or industrial waste products within the past 365 day period?
 Yes No If yes, by whom? _____

Date of last soil analysis of this site 10/10/16

Example 7:

Month:	September	Year:	2016
Permittee:	Water's Wet Treatment Plant 2	Site ID:	Area 1
L.A. Permit No. IN LA:	999998	Acres Available:	135.5
		Acres Used This Month:	26

Date:	Loading Data:			Daily Analysis			Weekly	Monthly	Lab Data:	DO NOT USE < IF NOT DETECTED																										
	Gallons Applied	Acres Used	Method Used*	Susp Solids	Fecal Coliform	Residual Chlorine	Analysis 1-5	Analysis 1 or 2		Weekly Analysis #	ENTER DETECTION LIMIT!																									
1										1	pH	BOD5*	Vol. Solids*																							
2										2	8.9	8	1630																							
3										3																										
4										4																										
5										5																										
6	76400	26	1					1	1																											
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*Methods of Application: 1 = Surface, 2 = Injection

What is the projected crop(s) for which the above application(s) was intended to fertilize?	corn in zones 1-4, beans in zone 5
If more than one crop is listed, indicate on the site-use map the areas planted, or to be planted, in each different type of crop.	
Has this application site been used for land application of any biosolids or industrial waste products within the past 365 day period?	
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/> If yes, by whom? Pollutant bearing water - Jay County Landfill
Date of last soil analysis of this site	11/20/15
pH range from last soil analysis of this site	7.2 to 8.5
Date on which last soil pH adjustment was made on this site	03/07/07

Other information required to be submitted with the report:

Analytical data reported in mg/l:

Heavy metal concentrations

Nutrient concentrations

Fecal coliform (as specified in the permit)

Suspended solids (as specified in the permit)

Volatile solids (as specified in the permit)

Residual chlorine (as specified in the permit)

pH of the pollutant-bearing water

PCBs

Soil pH