



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

OHIO E.P.A.

OCT 11 2013

ENTERED DIRECTOR'S JOURNAL

October 11, 2013

I certify this to be a true and accurate copy of the official documents as filed in the records of the Ohio Environmental Protection Agency.

Scott Young
Burch Hydro, Inc.
PO Box 230
Fredericktown, Ohio 43019

By:  Date: 10-11-13

Re: Land Application Management Plan Permit Approval to Beneficially Use Paper Sludge from Ohio Paperboard Corporation as a Fertilizer and Soil Conditioner

Application Received: September 11, 2013

Effective Date: October 11, 2013

Expiration Date: October 10, 2018

Dear Mr. Young:

The Ohio Environmental Protection Agency (Ohio EPA) has reviewed the land application management plan (LAMP) permit application dated September 11, 2013, submitted by Burch Hydro, Inc. (Burch Hydro) pursuant to Chapter 6111 of the Ohio Revised Code (ORC) for the proposed beneficial use of paper sludge generated by Ohio Paperboard Corporation (Ohio Paperboard) in Baltimore, Ohio. The submitted LAMP permit application proposes to beneficially use paper sludge from two different wastewater lagoons as an alternative to commercial fertilizer and as a soil conditioner. Burch Hydro will land apply the paper sludge on farm fields in Fairfield, Licking, and Perry Counties.

Pursuant to the authority of the Director of Ohio EPA (Director) under ORC Chapter 6111, the LAMP permit application for Burch Hydro, dated September 11, 2013, is approved subject to compliance with all of the conditions below. The Director has determined that the beneficial use of paper sludge as an alternative to commercial fertilizer or as a soil conditioner, in the quantities and under the circumstances specifically authorized in this LAMP permit, is unlikely to adversely affect the public health or safety or the environment.

CONDITIONS

1. This LAMP permit authorizes Burch Hydro to beneficially use paper sludge generated by Ohio Paperboard as an alternative to commercial fertilizer and as a soil conditioner in accordance with the LAMP permit application submitted on September 11, 2013, which is attached and incorporated herein. All other beneficial uses must be separately approved by Ohio EPA. Only paper sludge from Ohio Paperboard, as identified in the LAMP permit application, is eligible for beneficial use under this permit.
2. The Director, or his authorized representative(s), may enter upon any premises at any reasonable time in which Burch Hydro is managing paper sludge for the purpose of conducting inspections, collecting samples of paper sludge, conducting tests, or examining records or reports pertaining to the generation or beneficial use of paper sludge from Ohio Paperboard.
3. Issuance of this LAMP permit does not relieve Burch Hydro of the duty to comply with all applicable federal, state, and local laws, ordinances, and regulations.
4. Burch Hydro shall notify Ohio EPA if Ohio Paperboard anticipates a significant change in, or does significantly change, the generating process or the raw materials used in the generating process of the paper sludge. This LAMP permit does not authorize beneficial use of paper sludge generated by the changed process or raw materials unless authorized by Ohio EPA. Under such circumstances, the Director may request that Burch Hydro submit a revised LAMP permit application for approval.
5. The following shall be maintained by Burch Hydro for a minimum of five years after the beneficial use of the paper sludge and be made available to Ohio EPA upon request:
 - a. Records of the annual volume of paper sludge that is beneficially used;
 - b. Records identifying the recipients or locations of paper sludge and the volume provided to each recipient or location during the previous year;
 - c. A sampling plan detailing where samples of paper sludge are to be collected, how those samples are to be collected, how frequently those samples are to be collected, and a list of parameters that are used to characterize the samples;
 - d. All laboratory reports of all characterizations of the paper sludge;

6. At a minimum, the paper sludge intended for beneficial use shall be analyzed for the pollutants specified in the following table. Burch Hydro shall not designate, make available, or distribute for beneficial use any paper sludge that exceeds the Beneficial Use Limit for any pollutant(s) specified in the following table.

Beneficial Use Limits	
Pollutant	Totals (mg/kg)
Arsenic	41
Cadmium	39
Chromium	1200
Copper	1500
Lead	300
Mercury	17
Molybdenum	420
Nickel	420
Selenium	100
Zinc	2800

7. By January 31st of each year following a year when paper sludge from Ohio Paperboard was land applied, Burch Hydro shall submit a report regarding the beneficial use of the paper sludge. The annual report shall include the total amount, in tons, of paper sludge sold or distributed for beneficial use and the analytical results for any analysis performed.
8. The annual report shall be sent to the following address:

Ohio EPA
Division of Materials & Waste Management
Authorizing Actions and Engineering Unit
P.O. Box 1049
Columbus, OH 43216-1049

9. Burch Hydro shall include in the annual report the following:

"I certify, under penalty of law, that the information used to determine compliance with the requirements contained in Chapter 6111. of the Ohio Revised Code, and all rules thereunder, for the period beginning (insert date of last certification statement) and ending (insert current certification statement date) was prepared under my direction and supervision in accordance with a 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."

10. The certification statement referenced in Condition number 9 shall be signed by one of the following persons: In the case of a corporation, by a principal executive officer of at least the level of vice president or the principal executive officer's duly authorized representative, if such representative is responsible for the overall operation of the facility. In the case of a partnership, a general partner. In the case of a sole proprietorship, the proprietor. The signature shall constitute personal affirmation that all statements or assertions of fact in the records are true and complete and comply fully with applicable state requirements and shall subject the signatory to liability under ORC Section 2921.13.
11. Storage and beneficial use of the paper sludge shall not create a nuisance and shall not adversely affect public health or safety or the environment. Should a nuisance condition develop, or a determination be made by Ohio EPA that storage or land application of paper sludge is a threat to public health or safety or the environment, this LAMP permit to beneficially use the paper sludge may be revoked upon written notification from the Director. Immediately upon the effective date of any such revocation, Burch Hydro shall cease distribution and/or use of the paper sludge for beneficial use under this LAMP permit. Furthermore, storage or beneficial use of paper sludge that creates a nuisance or adversely affects public health or safety or the environment may subject Burch Hydro to enforcement by Ohio EPA.
12. Burch Hydro shall notify Ohio EPA in writing not later than seven days after discovering noncompliance with this LAMP permit.
13. Burch Hydro shall supply end users with a copy of this LAMP permit approval and the attached LAMP permit application.
14. The Director may add, delete, or change any conditions of this LAMP permit to protect public health or safety or the environment.
15. This permit to beneficially use paper sludge shall expire at midnight on the expiration date shown above. In order to renew the permit to beneficially use paper sludge beyond the above date of expiration, Burch Hydro shall submit such information and forms as are required by Ohio EPA not later than 180 days prior to the above date of expiration.

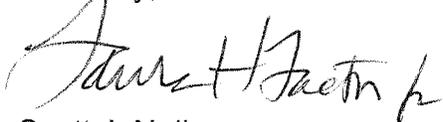
The paper sludge shall be beneficially used in strict accordance with the conditions of this LAMP permit and as outlined in the LAMP permit application submitted for this approval to the Director. Approval of this LAMP permit does not constitute an assurance that use of the paper sludge in accordance with the approved LAMP permit will be in compliance with all Ohio laws and regulations.

You are hereby notified that this action of the Director is final and may be appealed to the Environmental Review Appeals Commission pursuant to ORC Section 3745.04. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the Commission within thirty (30) days after notice of the Director's action. The appeal must be accompanied by a filing fee of \$70.00, made payable to "Treasurer, State of Ohio." The Commission, in its discretion, may reduce the fee if by affidavit it is demonstrated that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
77 South High Street, 17th Floor
Columbus, Ohio 43215

If you have any questions concerning this authorization, please contact Deb Hoffman at Ohio EPA, Division of Materials and Waste Management at (614) 728-5353.

Sincerely,



Scott J. Nally
Director

SJN/DH/ljm

cc: Phil Farnlacher, DMWM, CDO
Anthony Hanes, DSW, CDO

Attachment: LAMP



Permit-to-Install/Plan Approval Application

FOR AGENCY USE ONLY		
Date Received: 9/11/13	Application/Revenue ID: 948491	Organization ID: 26333
Document ID: 200814	Place ID:	Check ID: 642305
Check Date: 9/9/13	Check Number: 41977	Check Amount: \$200.00

1. Project Name: Newark Group Industries – dba Ohio Paperboard Corporation – Land Application Management Plan

2. Applicant (see note after signature)

Name: Newark Group Industries dba Ohio Paperboard Corporation

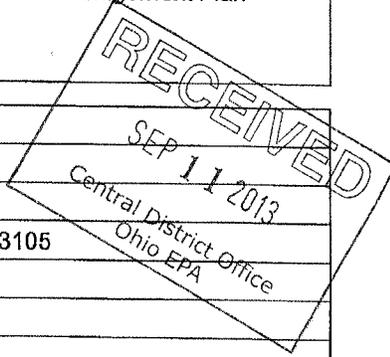
Mailing Address: 310 West Water Street

City: Baltimore State: OH Zip: 43105

Contact Name: Bob Wintrode

Title: General Manager

Phone: (740) 862-3570 Fax: (740) 862-8320 E-mail: bwintrode@tngus.com



3. Application/Plans Prepared by:

Name: Burch Hydro Inc.

Mailing Address: P.O. Box 230

City: Fredericktown State: OH Zip: 43019-0230

Contact Name: Scott A. Young

Title: Agronomist

Phone: (740) 694-9146 Fax: (740) 694-4188 E-mail: syoung@burchhydro.com

4. Billing Address (if different than Applicant)

Name: _____

Mailing Address: _____

City: _____ State: _____ Zip: _____

Contact Name: _____

Title: _____

Phone: () - Fax: () - E-mail: _____



5. Future Owner (if different than Applicant)

Name: _____

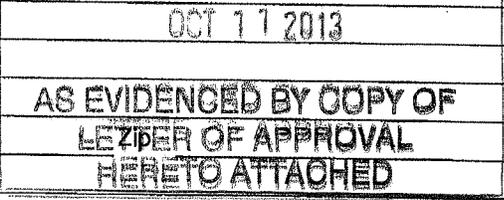
Mailing Address: _____

City: _____ State: _____

Contact Name: _____

Title: _____

Phone: () - Fax: () - E-mail: _____



6. Project Location

Street Address or Location Description: Wastewater Treatment Facility located on West Rome Street, Baltimore, Ohio 43105
 County: Fairfield Township: Liberty
 Municipality: Baltimore, Ohio Latitude: 39.850654 Longitude: -82.605047
 Method of Determination: Google Earth

7. Brief Project Description: This PTI is being submitted to revise and update the existing Land Application Management Plan for the Waste Activated & Anaerobic Sludge generated by the existing Newark Group Industries dba Ohio Paperboard Corporation wastewater treatment system. The existing LAMP was written in 1994 and then received an approved addendum in 2006. The LAMP will detail operational procedures for the removal, transport and land application of the sludge materials at agronomic rates on farm fields.

8. Will one or more acres be disturbed during construction of this project? Yes No
 If Yes, enter the date the NOI for coverage under the construction storm water NPDES permit was submitted: / / and the date coverage was granted: / /

9. Will wetlands be disturbed during construction of this project? Yes No
 If Yes, enter the date the 401/404 permit application was submitted: / /

10 a. Is this application part of a combined permit-to-install application? (for example air + water) Yes No
b. Has an application for a Class V injection well permit been submitted? Yes No N/A
 If Yes, date submitted: / /

11. Compliance Status

a. Will this project connect to a collection/treatment system that has a NPDES permit? Yes No
 If Yes, list federal and state permit numbers:
 OH _____
b. Is this application filed in compliance with findings and orders, a consent decree, and/or NPDES permit schedule? Yes No
 If Yes, effective date of the document containing the schedule: / /

12. Compliance with 208 plan

Does the project conform to the 208/201 plan for the area? Yes No N/A
 If Yes, has the engineer submitted supporting documentation? Yes No

13. Designated Ohio, Wild, Scenic, & Recreational Rivers

Is this project located within 1000 feet of a designated wild, scenic, and recreational river? Yes No
 See <http://ohiodnr.com/?TabId=985> for additional information

14. Estimated Project Schedule:

Beginning construction date: / / Ending construction date: / / Beginning operation date: 10/01/2013

15. Project Cost:

*Installation/Construction Cost: \$ N/A (Mark one): Actual Bid Estimate
 Annual Operation/Maintenance Cost (if applicable - this project only): \$ N/A
 Are Water Pollution Control Loan Funds going to be used for this project? Yes No
 If No, Funding Source: N/A

*This is costs of the treatment/dispersal/collection system that will serve the project

16. Attachments

The following are included in this application package (check appropriate box(es) and indicate how many copies of each are provided):

<input type="checkbox"/> Detail Plans	_____	X Management Plan	4
<input type="checkbox"/> Soil Evaluation Form	_____	<input type="checkbox"/> Engineering Report	_____
<input type="checkbox"/> Hydrogeologic Site Investigation Report	_____	<input type="checkbox"/> Engineering Specifications	_____
<input type="checkbox"/> Site Evaluation Form	_____	<input type="checkbox"/> Sewer Authority Letter	_____
<input type="checkbox"/> Other (describe):	_____	<input type="checkbox"/> Antidegradation Addendum	_____
<input type="checkbox"/> Narrative Plans (LTCP, GP, etc.)	_____		

17. Form B / C Submission (check all that apply):

- Sewer and Pump Station Construction – Form B1
- Onsite Sewage Treatment Systems – Form B2
- Wastewater Treatment Plants Less Than 100,000 GPD – Form B3
- Wastewater Treatment Plants Greater Than or Equal to 100,000 GPD and all Pond Systems – Form B4
- Industrial Direct Discharge Facility – Form B5
- Industrial Indirect Discharge Facility – Form B6
- Underground Storage Tank Remediation – Form B7
- Holding Tanks – Form B8
- Industrial Impoundment Ponds – Form B9
- X Land Application Management Plan for Sludge or Waste other than Treated Sewage – Form C1
- Treated Sewage Land Application Management Plan – Form C2
- Sewage Holding Tank Management Plan – Form C3

18. Fee Calculations:

Permit-to-Install (maximum total fee \$15,100)

a. Application fee:	\$ 100.00
b. Plan review fee:	\$ 100.00
c. Plan review fee (installation/construction cost x .0065):	\$ _____
d. Total Fee (a + b + c):	\$ _____

Sludge Management Plan Approval*

a. Application fee:	\$ 100.00
b. Plan review fee:	\$ 100.00
c. Total fee (a + b):	\$ 200.00

* No separate fee is needed for land application

19. Antidegradation

Is this project subject to the Antidegradation Rule (OAC 3745-1-05)? Yes X No

If Yes, an antidegradation addendum must be submitted (Note: It applies even if an exclusion and/or waiver is met)

If No, check all that apply:

- Application with no direct surface water discharge (Projects that do not meet the applicability section of 3745-1-05 (B)1, i.e., onsite sewage treatment systems, sanitary sewer extensions, indirect discharger to POTW, etc.).
- Renewal NPDES application or PTI application with no requested increase in loading of currently permitted pollutants.
- X Narrative Plans (Examples: LTCP, Land Application, General Plans, etc.)

20. Submittals:

To be considered complete, this application must include the following unless otherwise directed by Ohio EPA:

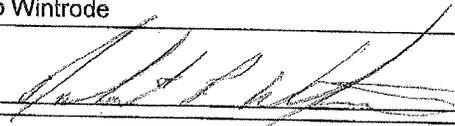
Four copies of the detail plans including profile and plan views of all sewers (shown on the same sheet), existing (as applicable) and proposed pump station facilities, incorporating all of the details outlined in Section 20.1, 20.2 and 20.3 of *Recommended Standards for Wastewater Facilities*.

- Two copies of complete technical specifications.
- Two copies of the Permit-to-Install Application including Form A, pertinent B & C form(s), and the antidegradation addendum (if applicable)
- Fee check payable to "Treasurer, State of Ohio."

21. Signature of the Applicant: (see Ohio Administrative Code 3745-42-03)

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision and that all the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are substantial penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Typed name: Bob Wintrode Title: General Manager

Signature:  Date: 9/16/13

NOTE (Who Must Sign):

The person signing as Applicant is not the applicant's engineer or architect or any other person submitting the Permit-to-Install Application on behalf of the owner. The Applicant should be owner of the facility, business, corporation, company, etc. or the legal responsible entity. It is not the engineer who prepared the plans.

APPROVED
OHIO ENVIRONMENTAL PROTECTION AGENCY
OCT 11 2013
AS EVIDENCED BY COPY OF
LETTER OF APPROVAL
HERETO ATTACHED



Plan Approval - Management Plan For Sludge or Industrial Byproducts other than Treated Sewage

Note: This form, with the attachments indicated, is intended to serve as the main substance of the management plan. If you prefer to submit a separate and complete document to serve as your management plan, then to respond to a question where a description or calculation is requested (such as Items C.1 through C.4), simply enter the page number where the information requested can be found. Please respond on this form when just a check mark or brief statement is requested.

APPROVED
 OHIO ENVIRONMENTAL PROTECTION AGENCY
 OCT 11 2013

FOR AGENCY USE ONLY		AS EVIDENCED BY COPY OF
Application Number:	Date Received:	LETTER OF APPROVAL HERETO ATTACHED

Applicant:	Newark Group Industries dba Ohio Paperboard Corporation
Facility Owner:	same
Application/Plans Prepared by:	Burch Hydro Inc.
Project Name:	Land Application Management Plan

RECEIVED
 SEP 11 2013
 Central District Office
 Ohio EPA

A. Background Information

- a. Briefly describe type and source of material to be land applied: Ohio Paperboard Corp. operates a wastewater treatment facility that processes the effluent from their paper recycling process. This wastewater facility has a series of treatment lagoons for both anaerobic primary and waste activated sludge.
- b. Briefly describe proposed uses of materials (agronomic uses, soil blends, structural fill, etc.): The primary method of beneficial use will be to remove the sludge from the lagoons, transport, and then land apply on farm fields at agronomic rates.
- c. Existing Plan Approval number: 01-053-IW N/A

B. Generating Facility

a. Amount of sludge/byproduct generated	<u>200</u>	dry tons/year	<input type="checkbox"/> N/A
b. Amount proposed for beneficial use	<u>200</u>	dry tons/year	
c. Disposal method for amount not used	<u>stored</u>		
d. Storage capacity at facility:	<u>1080</u>	days	

C. Land Application (If N/A, Skip to D)

- a. Use category of land application area (check all that apply): Unrestricted Access site Restricted Access site
- b. Quantity of material to be land applied:
 Inches/acre/year (annual average-liquid) up to 6 Dry tons/acre/year (annual average-sludge)
- c. Does the land application area have subsurface drains/tiles located less than 24 inches below natural grade?
 Yes No Unknown at this time
- d. Amount of land area available for land application if known (do not include buffer zones in the figure) tbd acres
- e. Maximum slope of land to be used for land application = 12 %
- f. Type(s) of crops or vegetation to be grown on land application area: **corn, soybeans, wheat, hay, pasture**

C.1 Describe the method or methods used for the storage and land application of sludge/other byproducts (including detailed information about the distribution system):

The Waste Activated Sludge (WAS) or primary sludge will be removed from the storage lagoon using a "manure style" pit pump powered by a tractor which will mix and slurry the sludge to achieve a uniform consistency. The sludge will then be pumped into truck tankers via a loading chute. The sludge will then be transported to the land application sites in sealed truck tankers to prevent spillage. Upon arrival at the field application site the sludge will be pumped from the truck tankers to a waiting "high flotation" spreading vehicle that will be capable of surface applying on the site, or immediately incorporating beneath the soil surface. The method of application will be dictated by crop type and farmer tillage preference.

C.2 State what the maximum land application rate(s) are proposed to be and the total acres required and available for land application. Attach calculations and references showing how the application rates and acreage needs were determined.

The maximum land application rate would be 6 dry tons per acre. That rate would be achieved with the primary anaerobic sludge averaging 10% solids. The waste activated sludge typically averages 6% solids when applied, therefore the dry tons per acre would be less.

Anaerobic Sludge: $14,000 \text{ gallons per acre} \times 10\% \text{ solids} \times 0.0000417 = 5.84 \text{ dry tons per acre}$

Waste Activated Sludge: $14,000 \text{ gallons per acre} \times 6\% \text{ solids} \times 0.0000417 = 3.5 \text{ dry tons per acre}$

At an average generation rate of 200 dry tons per year, cleaning the lagoon on a 3 year cycle the land base requirement would be:

$600 \text{ dry tons} / 3.5 \text{ dry tons per acre} = 171 \text{ acres every three years or } 57 \text{ acres per year}$

C.3 Describe the monitoring of the material to be land applied and the soils in the land application area(s), including frequency, methods and parameters that will be measured in each:

Each cycle the lagoon is to be cleaned, the lagoon will be sampled in a number of locations and then a composite of those samples will be analyzed for nutrients and metals by a certified laboratory. Those results will then be used for determining agronomic rates of application. Once the project is operational and the mixing of the lagoon is consistent by the manure pit pump, a percent solids test will be run to verify actual dry tons being hauled. This delay is due to the variability of sampling the lagoon in it's static "settled" state versus being mixed with the free water on the lagoon when sludge removal is occurring.

C.4 Describe the appropriate weather conditions required for the land application of sludge/other byproducts and how they will be determined and documented:

Sludge will not be land applied with there is a greater than a 50% chance of rain with a projected accumulation of 0.5 inches of rainfall or greater within the 24 hour period after beneficial use. Forecast information will be obtained for the nearest municipality from the NOAA.GOV website.

C.5 Check which land application activities listed below are proposed. If yes, please explain how runoff, ponding or discharges to waters of the state will be prevented (attach separate pages as needed).

Do you propose to land apply during precipitation events?
If **yes**, please explain: Yes No

Do you propose to spray irrigate when instantaneous wind speeds exceed 20 miles per hour?
If **yes**, please explain: Yes No

Do you propose to land apply within 10-year floodplain?
If **yes**, please explain: Yes No

C.7 Land application on frozen/snow-covered ground is not recommended. If land application on frozen/snow-covered ground is proposed, please indicate which of the following practices will be used to minimize pollutant discharges or nuisances:

- Application rate is limited to 10 wet tons/acre for solid materials (50% moisture or more) and 5 wet tons/acre for material less than 50% moisture. For liquids the application rate is limited to 5,000 gallons/acre.
- Applications will be made on land with at least 90% surface residue cover.
- Material shall not be land applied on more than 20 contiguous acres, separated by breaks of at least 200 feet.
- Application setbacks shall be increased to at least 200 feet from all grassed waterways, drainage ditches, streams, surface inlets, and water bodies.
- The rate of application will not exceed: 100lbs Nitrogen/acre or 100 lbs Phosphorus/acre
- Application will not take place on slopes greater than 6% unless material is applied in alternating strips less than 200' wide generally on the contour, or in the case of contour strips, on alternating strips.

If any of these practices are not proposed to be followed, please attach a description of how pollutant discharges will be minimized during application on frozen/snow covered ground.

C.8 Describe or list any other practices that will be used to minimize pollutant discharges or nuisances:

At the plant site, during loading of the truck tankers, caution will be used to re-direct liquid from the loading tower back into the storage lagoon after truck loading. At the field application sites, a hose stand will be used to contain excess liquid in the loading hose between each floater loading cycle. Loading areas at the field site will be at least 33 feet away from any open ditches or other "waters of the state".

C.9 Land Application Records

How will land application information be recorded? :

- Ohio EPA's Land Application Record Form Our Own Land Application Record Form (attached)

Where will the records be kept? : On file at the Burch Hydro Inc. office located in Fredericktown, Ohio. Ohio Paperboard Corporation will also have copies of the records after the project is complete.

C.10 Application Site Map (If known)

a. A map locating each land application site shall be attached. Each site shall be labeled "Restricted access site" or "Unrestricted access site". The map(s) should show the following items and are considered part of this plan:

- All present and known proposed occupied buildings within 300 feet of the land application area.
- All present and known proposed non occupied buildings within 300 feet of the land application area.
- All present and known proposed public and private water supply wells within 1,000 feet of the land application area.
- All sinkholes and waters of the state (including ditches, grass waterways, streams and rivers) within 200 feet of the land application area.
- All public surface drinking water supply intakes within 1500' of the land application area.
- All present and known proposed developments and public access areas within 300 feet of the land application area.

b. If the land application site(s) are not known, will site maps be submitted before land application starts? Yes No

D. Other Beneficial Uses

1. Is this material one of the following:
- Spent Foundry Sand
 - Bottom Ash From Coal Combustion
 - Fly Ash
 - Steel Slag
 - Sludge
 - Other:
2. If the material is "Other", have you contacted Ohio EPA to discuss the applicable regulations? Yes No
3. Is a comprehensive management plan attached for uses other than land application? Yes No

E. Miscellaneous Information:

The following items shall be included with this land application management plan:

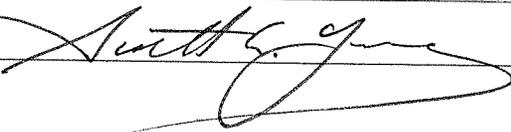
- Two copies of the Permit-to-Install/Plan Approval Application Form A or the NPDES Permit Application.
- If applicable, two copies of the site and soil evaluation(s) (For renewal applications, this is only needed if additional or different areas)
- One copy of the sampling results for the material to be beneficially used (the most recent, but no older than one year).
- Four copies of this management plan and any attachments or Four copies of a separate/complete management plan.
- Fee check payable to "Treasurer, State of Ohio."

The following additional information is included with this form:

F. The foregoing data is a true statement of facts pertaining to this proposed management plan.

Printed (Person Preparing Plan): SCOTT A. YOUNG

Title: Agronomist

Signed: 

Date: 09 / 05 / 2013

APPROVED
OHIO ENVIRONMENTAL PROTECTION AGENCY
OCT 11 2013
AS EVIDENCED BY COPY OF
LETTER OF APPROVAL
HERE TO ATTACHED

Newark Group Industries
Doing Business As:
OHIO PAPERBOARD CORPORATION
Located In: Baltimore, Ohio
LAND APPLICATION
MANAGEMENT PLAN
For:
Waste Activated Sludge (WAS)
And Anaerobic Primary Sludge
September 2013

APPROVED
OHIO ENVIRONMENTAL PROTECTION AGENCY
OCT 11 2013
AS EVIDENCED BY COPY OF
LETTER OF APPROVAL
HERETO ATTACHED

RECEIVED
SEP 11 2013
Central District Office
Ohio EPA

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GENERAL INFORMATION

I. General Information

Burch Hydro, Inc. will be contracted by Newark Group Industries dba Ohio Paperboard Corporation (Ohio Paperboard) to pump, transport and land apply the Waste Activated Sludge (WAS) and on occasion Anaerobic Sludge retained in a storage lagoons located on the grounds of their water treatment facility located at the end of West Rome Street in Baltimore, Ohio.

Ohio Paperboard operates a cardboard/paper recycling mill that produces a variety of paper board products. Process waste water from all aspects of the mill operation is conveyed to the waste water treatment system located adjacent to the mill site, undergoes treatment, recycles much of the treated water back to the plant as process water, and ultimately discharges effluent to the West Branch of Pawpaw Creek in Fairfield, County under an NPDES permit.

The Ohio Paperboard Corporation paper mill is located at 310 West Water Street in Baltimore, Ohio 43105 and the wastewater treatment facility is located immediately to the north of the mill site, accessed by West Rome Street. The GPS Coordinates of the wastewater treatment facility are: 39.850603 -82.605080.

The process wastewater is typical of a recycled paper mill flow. All fiber for paper making is derived from recycled paper, primarily corrugated cardboard, which is pulped in a wet system, cleaned of tramp plastic, metal and other contaminants then transferred after processing to the paper making machines. Wastewater flow is minimized in an effort to conserve water, fiber and heat. Most of the wastewater is generated at the paper machine when re-pulped fiber is delivered to the machine at 0.5% fiber and 99.5% liquid. Approximately 80% of the water drains from the machine as the paper fiberboard sheet is formed.

A portion of the process wastewater flow is directed to a Marx settling system to recover fiber, and then to a Krofta dissolved air floatation (DAF) system for further fiber recovery. Recovered fiber and clarified water are returned to the pulper utilizing the heat content of both. Excess wastewater is directed to the process sewer system which receives other wastewater, primarily the wash water from the paper machine which is then all pumped to the wastewater treatment system. There is a separate sanitary sewer system for the mill and no sanitary sewage is introduced to the process wastewater system.

The treatment system consists of a number of treatment processes. There are two primary lagoons operating under anaerobic conditions, only one of which is on line at any time. Solids are accumulated in a primary pond until primary effluent quality indicates the need to switch to the other pond. The pond is then allowed to settle and consolidate the solids. The accumulation and consolidation period is between 12 to 18 months. These lagoons are the source of the anaerobic "primary" sludge which has a nutrient content slightly greater than that of the waste activated sludge.

Primary lagoon decant effluent is directed either to the aerated “finishing” stabilization lagoon, or to the Waste Activated Sludge process and clarifier. The aerated “finishing” lagoon has an approximate five million gallon capacity with six floating, shaft driven electric aerators. The finishing lagoon has an approximate retention time of fourteen days. The effluent decant from the aerated finishing lagoon is then recycled back to the plant for process water, or the remained is discharged to the west branch of Pawpaw Creek under an NPDES permit.

The Waste Activated Sludge Plant takes in the solids discharge from the primary lagoons and operates in a plug flow “batch” mode with nutrient addition. As the mixed liquor exits the aeration basin a polymer is added to assist in flocculation of the solids to then be removed in the clarifier. Treated effluent from the clarifier is directed to the outfall line for post aeration in the finishing lagoon. Waste Activated Solids which are accumulated in the clarifier are then pumped to the Waste Activated Sludge Storage Lagoon and are then periodically removed by a contractor to be taken to land application. This interim storage and removal of WAS occurs on approximately a three to six year rotation, depending on mill production and WAS storage lagoon capacity.

TWO TYPES OF RESIDUALS TO BE LAND APPLIED

On a periodic rotational basis solids are removed from either the anaerobic primary treatment lagoons or the waste activated sludge storage lagoon. The nature and nutrient value of each type of sludge varies slightly from each other. Both types of sludge have been verified by Toxic Characteristic Leaching Procedure (TCLP) testing to be Non-Hazardous. Also it is also important to note again that there is no sanitary waste included in this waste water treatment system, therefore pathogen content (and/or reduction) is not a concern.

The anaerobic primary sludge generated in the primary lagoons is predominately fiber based, comprised of cellulose and has a moderate level of plant nutrients. This material can have some odor associated with it due to the anaerobic “reducing” action of the lagoon on the organic material. The organic fraction is approximately 45% by weight. The primary sludge is essentially non-putrescible largely due to the fact that the nitrogen content has been reduced thereby inhibiting biological activity. The primary sludge when removed from the lagoons in a slurry form generally averages around 10% solids content.

The waste activated sludge held in the storage lagoon is an accumulation of the biological solids from the aerobic (waste activated) treatment system on the plant site. After settling in the clarifier they are transferred to the waste activated sludge storage lagoon. Generally these solids are slightly lower in nutrient content than those in the primary lagoons, and have fewer odors. The waste activated sludge when removed from the lagoons in a slurry form, generally average around 5% solids content.

ESTIMATED VOLUMES TO BE LAND APPLIED

The primary anaerobic lagoon was last cleaned by solids removal and land application in the fall of 2009. The primary anaerobic lagoons are cleaned approximately once every 10 years, as they

do not serve as “storage” lagoons, but part of the wastewater treatment process. In 2008 approximately 500 dry tons were removed and land applied at agronomic rates on area farms. The waste activated sludge “storage” lagoon is the primary source and collection point for solids generated by the wastewater treatment system. Typically this lagoon is cleaned on a rotational cycle removing approximately 1.5 million gallons every three years. It is estimated that the 1.5 million gallons at approximately 5% solids on average would equal approximately 320 dry tons removed each time on that rotational cycle. At this amount of volume being removed – it is not cleaning the lagoon back out to empty, but creating enough room in the lagoon for the next 3 years of storage space.

METHOD OF BENEFICIAL USE - LAND APPLICATION

The chosen method to beneficially reuse these wastewater solids is by land application. The waste activated sludge or primary sludge will be land applied as an alternative to commercial fertilizer, and will also act as soil conditioner by adding valuable organic matter. The land application activity is proposed to occur in one or more of the following counties: Fairfield, Licking, Perry.

CONTACT INFORMATION

The primary contact for Ohio Paperboard Corporation is Mr. Kevin McMunn whose address is: 310 West Water Street, Baltimore, Ohio 43105. Mr. McMunn’s contact phone numbers are: (740) 862-3569 office. The contractor in charge of the sludge removal is Burch Hydro, Inc., 17860 Ankenytown Road, Fredericktown, Ohio 43019. Mr. Scott A. Young, Lead Agronomist for Burch Hydro, Inc., is the person responsible for ensuring proper record-keeping, reporting, and complaint response for the project. He can be reached at the Burch Hydro office at 740-694-9146.

Burch Hydro, Inc. is completely responsible for all facets of this project. These include all removal, transportation, and land application activities. All applicable rules and regulations of the Ohio EPA, Ohio Department of Agriculture, and all other applicable State and Federal regulations will be strictly adhered to.

REMOVAL & SPREADING PROCEDURES

II. Removal and Spreading Procedures

Burch Hydro, Inc. will locate, educate, and enter into sales agreements with farmers for the beneficial soil amendment material. A sample sales order form is included as part of this management plan. All land application management guidelines, set forth by the Ohio EPA will be explained to each farmer/end user.

Upon mobilization of equipment to commence operations of the project, a lagoon style, tractor driven manure pit pump will be lowered into the area of the lagoon with the heaviest build-up of solids. The pump will then begin the circulation and mixing of the solids in the lagoon to obtain a uniform consistency for pumping and transfer to the truck tanker units. Each truck tanker unit will have latches on the ports to insure there is no spillage or loss of the liquid to the field. A truck loading tower will be positioned close to the lagoon so that when an empty tanker is ready to be filled the driver will park the tanker under the chute of the loading tower to convey the liquid sludge into the tanker. When that capacity is filled from the pump unit, the driver will signal the pump operator that he is full.

Each truck tanker unit has a registered capacity, so that volume will be noted for each respective load. After filling the tanker, the driver will then close and securely seal the hatch on his trailer before leaving the plant site. The truck driver will then deliver the load to the field site to the waiting high flotation spreading unit. The sludge is then transferred from the truck tanker via a hose under pressure to the field application unit. The ends of the hose used to transfer the sludge from the tanker to the floater spreader will be placed on stands to reduce spillage between loads in the loading area. Loading areas at the field will be chosen to avoid ditches and other "waters of the state". The field floater operator will then evenly spread the material either by surface application or incorporation to meet the farm operator's needs. The floater operator will know his calibration settings to control speed and application based on predetermined rates. On average no more than 14,000 gallons per acre will be applied in a single pass on the field at any one time but rates can vary based on field conditions. If the sludge is surface applied, a farm operator may preform subsequent tillage to incorporate the material if it is not immediately incorporated by the application unit, unless the field is in no-till, hay or pasture. Once empty the truck tanker unit will return to the plant site for the next load. The most direct routes will be taken to the field application sites to minimize traffic if possible. Field spreading will be limited to daylight hours only.

OPERATIONAL MANAGEMENT OVERSIGHT

The quantity of sludge in each truckload will be recorded by Burch Hydro job site supervisor. The supervisor will have a written list of pre-determined site numbers and maps with the quantity to be delivered to each individual site. Copies of each day's hauling activities will be put on file routinely at Burch Hydro, Inc.'s headquarters in Fredericktown, Ohio. These records are available at all times for inspection by the Ohio Paperboard Corporation and the Ohio EPA. Ohio Paperboard Corp. will also receive Monthly Hauling and Site Status Reports summarizing each month's activities and copies of all site maps on where the sludge was be applied.

Once the trucks are loaded, a designated route will be chosen to the application sites where the liquid sludge will be spread. Each site will have its' own pre-determined site identification number. All truck drivers will have a written list of sites for reference and will be given daily delivery instructions and maps by the job site supervisor.

Pre-determined, agronomic application rates will be mutually agreed upon by the end user "farmer" and a Burch Hydro, Inc. representative. These application rates will be strictly adhered to. Burch Hydro, Inc. will not over apply the sludge. Daily monitoring records will be kept of farmer/landowner's name, field number, acres spread, gallons applied, dry tons per acre applied, and application date.

APPLICATION ISOLATION DISTANCES

Ditches, Streams, Waterways	33 Feet
Residences, Businesses	100 Feet
Sinkholes	33 Feet
Ponds, Lakes	33Feet
Private Water Supply Well	100 Feet
Public Water Supply Well	300 Feet
Public Surface Water Intake	300 Feet
Bedrock	3 Feet

SPILL PREVENTION & EMERGENCY PROCEDURES

III. Spill Prevention and Emergency Procedures

Every precaution will be taken to prevent an accidental spill of the sludge. For liquid operations, sealed tankers with turnbuckles on the hatches will be used with no open hatches or ports during transportation, and all valve ports will have safety caps secured in place.

If a spill should occur during transportation of the sludge, the following procedures will take place:

- A. Burch Hydro, Inc. will isolate the area of the spill using and absorbent material such as sand, straw, or similar drying material.
- B. After containment of the spill, clean-up procedures will take place by scraping up material in the area with a front-end loader and placing it into a sealed truck bed or trailer.
- C. Any remainder of the spill will be swept up and/or squeegeed and collected for removal.
- D. The Appropriate Ohio EPA District Office and other concerned Agencies will be contacted to notify them of the spill event and all the measures that were taken to remediate the accidental spill scene. The spill notification number for the Ohio EPA is: (800) 282-9378.

In case of any emergency or spill the contact numbers are as follows:

BURCH HYDRO INC.
Office: (740) 694-9146
Bryan Burch, Director of Operations: (614) 348-8248
Scott Young, Agronomist: (740) 694-9146

OHIO PAPERBOARD CORP.
Office: (740) 862-3569
Kevin McMunn, Technical Manager: (614) 588-7081

OHIO EPA SPILL HOTLINE
(800) 282-9378
Ms. Betsy VanWormer, Division of Surface Water: (614) 644-2150
Ms. Deb Hoffman, Division of Materials & Waste Management: (614) 728-535

MONITORING & REPORTING

IV. Monitoring and Reporting

Daily monitoring records will be kept of landowner name, field number, acres spread, gallons applied, dry tons per acre applied, and application date.

PARAMETERS ANALYZED AND MONITORED

Samples will be obtained and analysis will be performed by a certified laboratory on the composite sample of sludge taken from the respective storage lagoon each time that is intended to be cleaned prior to the operations start up. The following parameters for nutrients and metals will be tested for to insure land application quality:

Nutrients:

Total Kjeldahl Nitrogen (TKN), Ammonium (Nh₃), Total Phosphorous (P) Total Potassium (K)

Trace Elements:

Arsenic (As), Cadmium (Cd), Chromium (Cr), Copper (Cu), Lead (Pb), Nickel (Ni), Zinc (Zn), Selenium (SE), Mercury (Hg), Molybdenum (Mo)

Other Parameters:

% Solids, pH

Every month, a "Monthly Activity Report" is generated for reporting the exact amount of nutrients and trace metals applied on each field site. The reports will indicate the sludge generator, the farmer name, the material type, the dedicated field number, the acres available, the acres spread, the haul month and year, the date hauled and applied, the % solids used to calculate the dry tons per acre, the quantity applied, and the total dry tons applied to the field (see example in appendix).

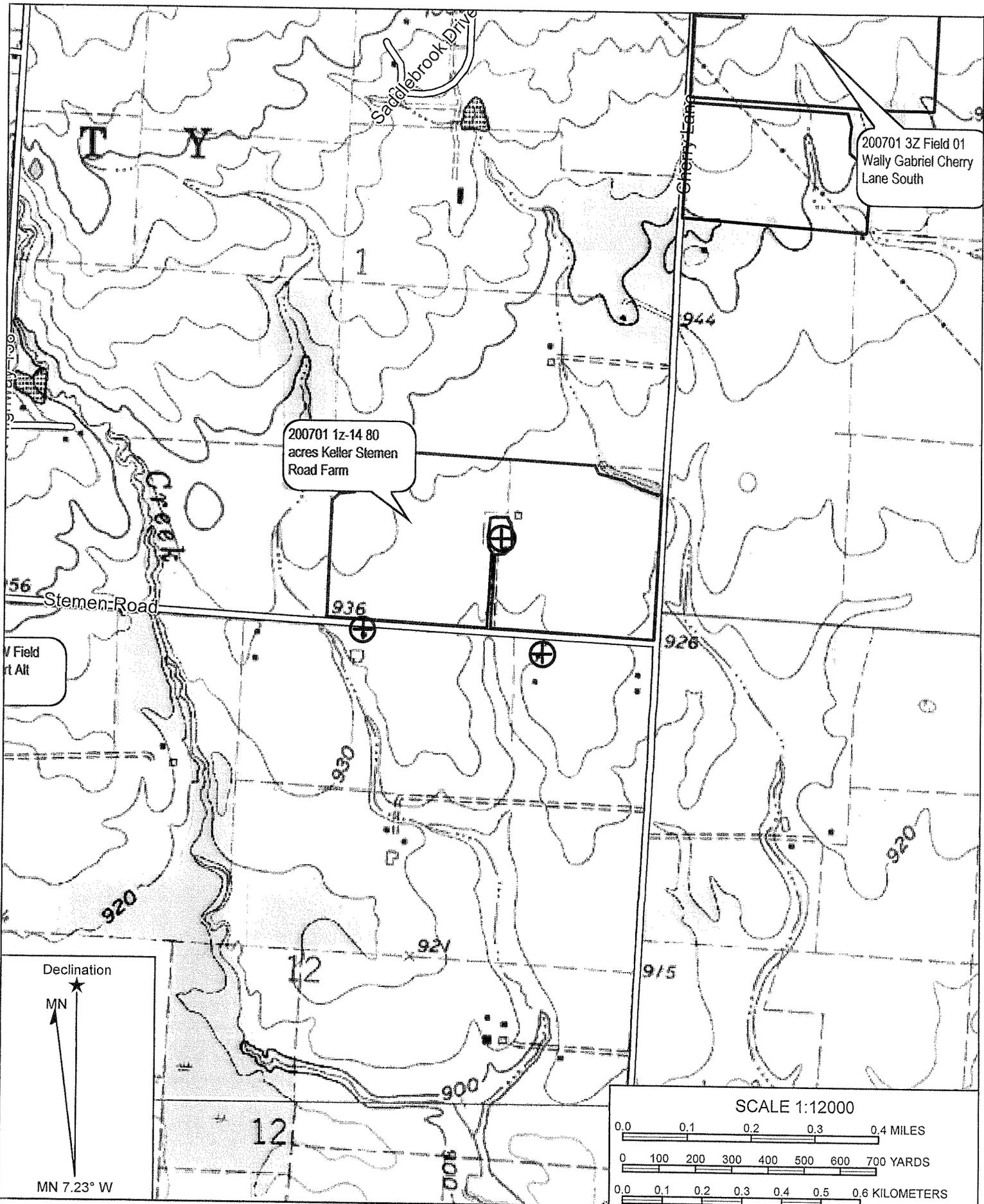
Also a Site Status Report indicating Fertility Values and Metals will be generated which includes all the analysis data from above but also the nutrient loadings and metal loadings for the field (see example in appendix).

A Farmer Summary report will be sent to the farm operator indicating the nutrients they have received so that they can adjust their future fertilizer inputs to account for the nutrients that have been applied (see example in appendix).

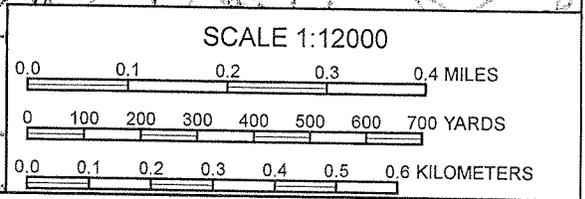
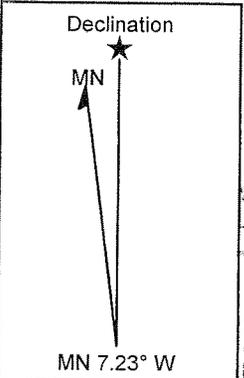
Upon the completion of the project these records will be forwarded to Ohio Paperboard Corporation for their records, and will be maintained in the Burch Hydro Inc. office for a period of no shorter than 5 years.

**EXAMPLE
LAND APPLICATION SITE MAPS
V.**

APPROVED
OHIO ENVIRONMENTAL PROTECTION AGENCY
OCT 11 2013
AS EVIDENCED BY COPY OF
LETTER OF APPROVAL
HERE TO ATTACHED



V Field
rt Alt



Name: MILLERSPORT
 Date: 09/05/13
 Scale: 1 inch = 1,000 ft.

Location: 039.8860786° N 082.5895148° W
 200701 1z Field 14 80 acres Farmer: Keller

200701 1z-14 80
acres Keller Stemen
Road Farm

Cherry Lane

Stemen Road

Miller Farm Landing Strip

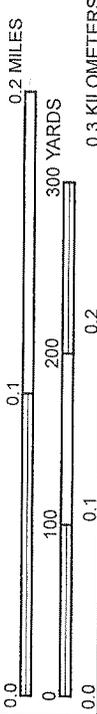
Declination



MN

MN 7.23° W

SCALE 1:4000



Name: MILLERSPORT SW, OH
Date: 09/05/13
Scale: 1 inch = 333 ft.

Location: 039 8866322° N 082 5895990° W
200701 1Z 14 80 acres Farmer: Keller

**EXAMPLES OF:
MONTHLY ACTIVITY REPORT
SITE STATUS REPORT
FARMER NOTIFICATION REPORT**

BURCH HYDRO INC.

17860 Ankneytown Road – P.O Box 230
Fredericktown, OH 43019-0230
(740) 694-9146 Office

On July 15 and 16, 2013, biosolids from the City of Mount Vernon, Ohio WWTP – Ohio NPDES Permit #4PD00100*LD, were delivered for beneficial use on site number 20110C-02 located in Morris Township, of Knox County. Biosolids are a by-product of the wastewater treatment process.

The latest analysis of the biosolids indicates the following concentrations of nutrients to be present:

Ammonium Nitrogen (NH3):	13300 ppm	26.6 lbs/dry ton
Total Kjeldahl Nitrogen:	64700 ppm	129.4 lbs/dry ton
Total Organic Nitrogen:	51400 ppm	102.8 lbs/dry ton
Total Phosphorous:	16200 ppm	32.4 lbs/dry ton
Total Potassium:	2270 ppm	4.54 lbs/dry ton

The following beneficial use rates of nutrients were applied to your field (201101C-02) were as follows:

Total Dry Tons Per Acre of biosolids spread:	2.14 dry tons per acre
Total Acres Authorized for use:	18 acres
Total acres spread during this event:	12 acres

Total Plant Available Nitrogen Spread per Acre:	100.15 pounds per acre (represents 30% of the organic nitrogen & 60% of the NH3 N)
Total Phosphate (P2O5) Spread per Acre:	158.779 pounds per acre
Total Potash (K2O) Spread per Acre:	11.71 pounds per acre

The above information is provided as a requirement of the Ohio EPA, Division of Surface Water, which may be contacted at (877) 644-2001.

Travis L. Shuff

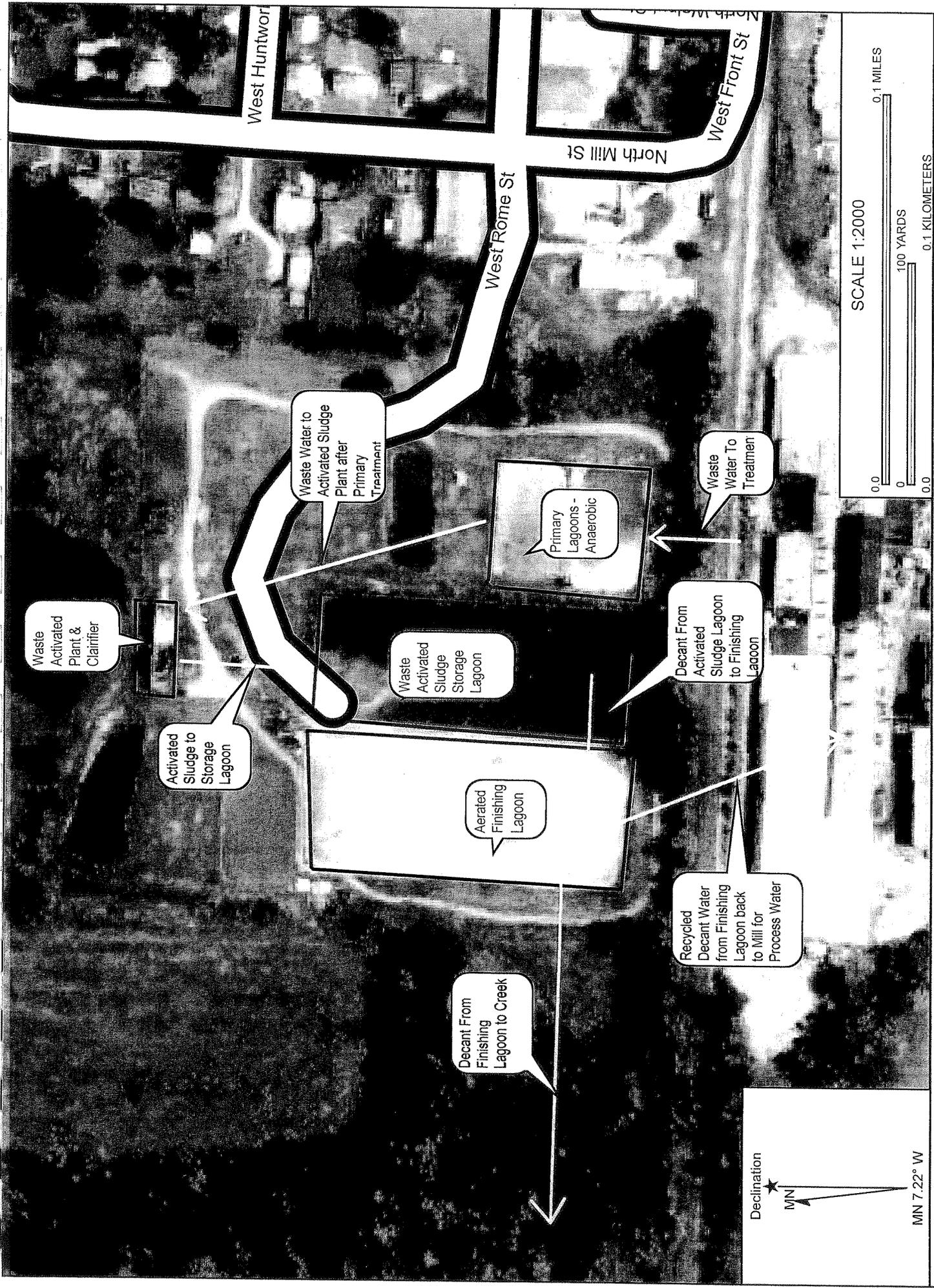
Beneficial User Name (print)

Beneficial User Name (signature)

7/24/13

Date:

**SITE MAP OF OHIO PAPERBOARD
WASTEWATER TREATMENT PLANT**



Waste Activated Plant & Clarifier

Activated Sludge to Storage Lagoon

Waste Water to Activated Sludge Plant after Primary Treatment

Waste Activated Sludge Storage Lagoon

Decant From Finishing Lagoon to Creek

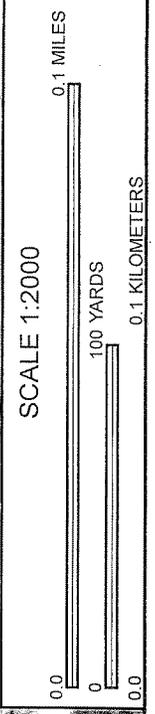
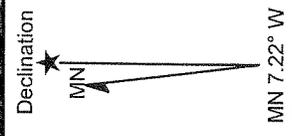
Aerated Finishing Lagoon

Primary Lagoons - Anaerobic

Recycled Decant Water from Finishing Lagoon back to Mill for Process Water

Decant From Activated Sludge Lagoon to Finishing Lagoon

Waste Water To Treatment



Name: BALTIMORE NW, OH
 Date: 09/04/13
 Scale: 1 inch = 166 ft.

Location: 039.8506032° N 082.6050804° W
 Newark Industries Group - Ohio Paperboard Corporation - Wastewater Treatment
 Copyright (C) 2013

**ANALYTICAL DATA
SEPTEMBER 2013**