



FILE COPY

State of Ohio Environmental Protection Agency

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P.O. Box 1049
Columbus, OH 43216-1049

April 22, 2009

The Honorable Steve Butcher
Mayor
City of Pataskala
621 West Broad Street
Pataskala, OH 43062

Dear Mayor Butcher:

Enclosed is a report regarding a Compliance Evaluation Inspection that Jacob Howdyshell and I performed at the City of Pataskala Wastewater Treatment Plant (WWTP) on March 25, 2009. Please read the report carefully since there are deficiencies that must be addressed. Deficiencies highlights include:

1. The current sewage sludge treatment system at the WWTP is not adequate to properly treat sewage sludge for land application. The city's land application of sludge program must cease until the city is able to demonstrate consistent compliance with Sewage Sludge Rules contained in the Ohio Administrative Code (OAC) 3745-40. The city's sludge may be hauled to another approved facility for additional treatment prior to land application on authorized sites. When the city demonstrates consistent compliance with OAC 3745-40 its land application program may continue.
2. Land application of sludge on fields south of the WWTP must cease until the soil phosphorus level in these fields decrease to acceptable levels. These fields have had sludge land applied on them yearly, yet no crops have been planted to use the nutrients being applied to the site.
3. Wastewater overflows from the WWTP oxidation ditch must cease.
4. Submit a plan for removal of infiltration/inflow sources of relatively clean water into the city's sanitary sewer collection system. A portion of this work has been reported as completed but status is needed for another portion which may as yet remain unfinished. Such work will reduce the hydraulic load delivered to the city's WWTP and help provide capacity for wastewater from new development.

Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

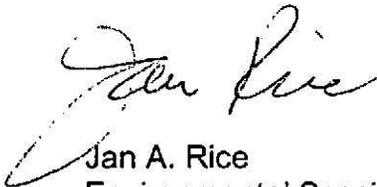
The Honorable Steve Butcher
Mayor
City of Pataskala
Page -2-

On April 15, 2009, you, Tim Boland and Stephen Kill from your office along with Jennifer Frommer from W.E. Stilson met with Ohio EPA staff to discuss the city's short and long term plans for improving its WWTP. It is good to see that the city is actively pursuing WWTP improvements to resolve existing problems and to allow future growth. This work must continue as rapidly as possible to prevent a situation from developing which could possibly hinder continued growth in Pataskala.

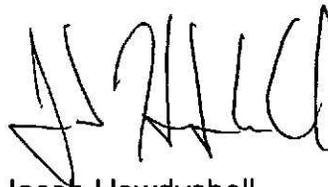
If the city does not quickly proceed with necessary improvements it faces the possibility of enforcement action from this office in response to wastewater discharge permit noncompliance. It also faces the possibility that this office would have no choice but to withhold Permits to Install for additional wastewater sources from new development until the WWTP upgrade is well underway.

If there are questions regarding sludge management please contact Jacob Howdysshell by telephone at (614) 644-2018 or by e-mail at jacob.howdysshell@epa.state.oh.us. For other questions you may contact Jan Rice by telephone at 614-728-3850 or by e-mail at jan.rice@epa.state.oh.us.

Sincerely yours,



Jan A. Rice
Environmental Specialist
Field Operations Unit
Division of Surface Water
Ohio EPA/CDO



Jacob Howdysshell
Environmental Specialist
Biosolids Unit
Division of Surface Water
Ohio EPA/CO

c: Tim Boland, City Administrator
Stephen Kill, WWTP Superintendent

NPDES Compliance Inspection Report

A. NATIONAL DATA SYSTEM CODING

Permit No.	NPDES No.	Date	Inspection Type	Inspector	Facility Type
4PB00009*HD	OH0020273	3/25/09	C	S	1

B. FACILITY DATA

Name and Location of Facility Inspected	Entry Time	Permit Effective Date
City of Pataskala Wastewater Treatment Plant 9550 Creek Road Pataskala, Ohio, 43062	10:00 A.M.	3/1/01
	Exit Time	Permit Expiration Date
	12:30 P.M.	2/28/06

Name(s) and Title(s) of On-Site Representative(s)	Phone Number(s)
Stephen Kill, WWTP Superintendent	614-554-3649
Name, Address and Title of Responsible Official	Phone Number
Tim Boland/City Administrator, 621 W. Broad Street, /Suite 2B Pataskala, Ohio 43062	740-964-2416

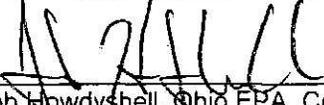
C. AREAS EVALUATED DURING INSPECTION

<u>S</u> Permit	<u>M</u> Flow Measurement	<u>N</u> Pretreatment
<u>N/M</u> Records/Reports	<u>N</u> Laboratory	<u>U</u> Compliance Schedules
<u>U/S</u> Operations & Maintenance	<u>U/S</u> Effluent/Receiving Waters	<u>M</u> Self-Monitoring Program
<u>U</u> Facility Site Review	<u>S/M</u> Sludge Storage/Disposal	<u> </u> Other
<u>M</u> Collection System		

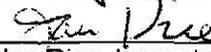
(S = Satisfactory, M = Marginal, U = Unsatisfactory, N = Not Evaluated)

D. SUMMARY OF FINDINGS/COMMENTS (attach additional sheets if necessary)

Reports – marginal due to missing discharge monitoring report data for the period of time 4/1/07 through 3/31/08.
Operations – unsatisfactory due to wastewater overflows from the WWTP oxidation ditch.
Facility Site Review – unsatisfactory due to sludge in drainage ditches and miscellaneous debris in north lagoon.
Collection System – marginal due to incomplete sanitary sewer collection system installation in the Oaks Subdivision.
Flow Measurement – marginal due to overdue flow meter calibration.
Effluent – unsatisfactory due to effluent limitations violations.
Sludge Disposal – marginal due to overuse of land application sites adjacent to the WWTP.
Compliance Schedules – unsatisfactory due to failure to submit infiltration/inflow plan to Ohio EPA.
Self-Monitoring Program – marginal since effluent sampler is not set up to provide flow proportionate samples.



 Jacob Howdysshell, Ohio EPA, Central Office



 Jan/Rice, Inspector, Ohio EPA, Central District Office



 Erin Sherer, Reviewer, Ohio EPA, Central District Office

4/22/09

 Date

4/22/09

 Date

4/24/09

 Date

E. PERMIT VERIFICATION

Inspection Observations Verify the Permit	Yes	No	N/A	N/E
a. Correct name and mailing address of permittee	X			
b. Correct name and location of receiving waters	X			
c. Product(s) and production rates conform with permit application (industries)			X	
d. Flows and loadings conform with NPDES permit	X			
e. Treatment processes are as described in permit application/briefing memo	X			
f. New treatment process(es) added since last inspection		X		
g. Notification given to state of new, different, or increased discharges	X*			
h. All discharges are permitted		X*		
i. Number and location of discharge points are as described in permit	X			

Comments:

*(g) the permittee requested in writing that the WWTP discharge permit design flow be changed from 0.8 to 1.1 million gallons per day. This change is reflected in the permit renewal effective 4/1/09.

*(h) oxidation ditch overflows are not permitted. A wastewater high-water level sensor has been installed in the oxidation ditch and is being adjusted to alert operators when flow must be diverted into the lagoons to prevent oxidation ditch overflow. If not already done, the permittee should keep a tracking log to document overflow frequency. Photographs of sludge from a recent overflow are included in Attachment "B" of this report. The permittee should provide this office a drawing showing how flow is routed into and out of the lagoons.

F. COMPLIANCE SCHEDULES/VIOLATIONS

	Yes	No	N/A	N/E
a. Any significant violations since the last inspection (last inspection 4/9/07)	X*			
b. Permittee is taking actions to resolve violations	X*			
c. Permittee has compliance schedule	X			
d. Compliance schedule contained in permit.	X			
e. Permittee is meeting compliance schedule		X*		

Comments:

*(a) effluent limitations violations are listed in Attachment "A". The Ohio EPA has no record of discharge monitoring reports for the period of time 4/1/07 through 3/31/08. The permittee should contact Jaimie Roberts (tele.: 614-644-2054) in the Ohio EPA to arrange for submittal of this information as soon as possible.

*(b) the superintendent indicated that the city is reviewing plans for improving its WWTP. A letter from the permittee dated April 1, 2009 indicates that the permittee intends submitting to this office by October 1, 2009 a Permit to Install for WWTP upgrade.

*(e) the compliance schedule contained in the permit which expired 2/28/06 required submittal of a general plan to resolve Infiltration/Inflow (I/I) impacts on the WWTP. A letter dated 8/8/07 from the permittee indicates that the general plan would be submitted to this office by 12/31/07. There is no record in this office's file that the general plan has been submitted. The permittee must provide this office by May 15, 2009 the date by which the I/I removal general plan will be submitted. The plan must include a time-line that the permittee intends using for completion of its I/I removal project.

G. OPERATION AND MAINTENANCE

Treatment Facility Properly Operated and Maintained	Yes	No	N/A	N/E
a. Standby power available: Generator _____ Dual Feed _____		X*		
b. Adequate alarm system available for power or equipment failures	X*			
c. All treatment units in service other than backup units	X			
d. Sufficient operating staff provided: # of shifts - 1 Days/Week - 5 (with weekend checks)				X
e. Operator holds unexpired license of class required by permit Class: II (required) III (held)	X			
f. Routine and preventive maintenance schedule/performed on time	X			
g. Any major equipment breakdown since last inspection	X*			
h. Operation and maintenance manual provided and maintained		X		
i. Any plant bypasses since last inspection		X		
j. Regulatory agency notified of bypasses _____ on MORS _____ 800 Number			X	
k. Any hydraulic and/or organic overloads experienced since last inspection	X*			

Comments:

*(a) standby power will be reviewed during planning for the WWTP upgrade.

*(b) the superintendent indicated that a wastewater high-level and power loss alarm in the WWTP is connected to an auto dialer system to notify operators. The superintendent indicated that the high-level alarm was being adjusted for optimal performance.

*(g) the superintendent indicated that two aeration disk rotor shafts had been replaced. The skimmer arm in the south clarifier is bent and needs repair. A photograph of the skimmer arm is included in Attachment "B".

*(k) it was apparent that flows had increased, at some point in time, to the point where wastewater had again overflowed from four notches in the oxidation ditch exterior walls. The overflows flowed into drainage ditches around the plant. Sludge residue could be seen in the drainage ditches. At the time of this inspection it did not appear that the overflow had extended beyond the fence surrounding the WWTP. Photographs of the oxidation ditch notches and sludge in drainage ditches are included in Appendix "B" of this report. The superintendent indicated that plant improvements would address these overflows.

Inspection of a small portion of the southeast corner of the north lagoon shoreline showed an accumulation of miscellaneous debris that has accumulated at that location. A photograph of this debris is provided in this report. This material must be removed from wastewater routed through this WWTP. The permittee should evaluate the volume of sludge that may have accumulated in these lagoons over the years. Sludge accumulation will reduce the wastewater storage volume that may be needed during wet weather periods of time.

Collection System	Yes	No	N/A	N/E
a. Percent combined system: 100%				
b. Any collection system overflows since last inspection (CSO <u> </u> SSO <u> </u>)		X		
c. Regulatory agency notified of overflow (SSOs)		X		
d. CSO O and M plan provided and implemented			X	
e. CSOs monitored and reported in accordance with permit			X	
f. Portable pumps used to relieve system		X		
g. Lift station alarm systems provided and maintained				X*
h. Are lift stations equipped with permanent standby power or equivalent	X*			
i. Is there an inflow/infiltration problem (separate sewer system), or were there any major repairs to collection system since last inspection	X*			
j. Any complaints received since last inspection of basement flooding		X		
k. Are any portions of the sewer system at or near capacity				X

Comments:

*(g) there are six lift stations in the collection system. The permittee must confirm status of each lift station alarm system.

(h) The Black's Road, Creek Road and Eastside lift stations have permanent standby power. A portable generator is available for use at The Settlement, River Forest and Sugar Mill lift stations.

*(i) The permittee must provide this office by May 15, 2009 the date by which the I/I removal general plan will be submitted. The plan must include a time-line that the permittee intends using for completion of its I/I removal project.

H. SLUDGE MANAGEMENT

a. Sludge Management Plan (SMP): 6/26/91 Submitted Date
01-234-PW Approval Number
 Not submitted
 N/A

	Yes	No	N/A	N/E
b. Sludge Management Plan current		X		
c. Sludge adequately disposed (Method: land fill (Suburban)/land application)	X*	X*		
d. If sludge is incinerated, where is ash disposed of?			X	
e. Is sludge disposal contracted (Name: Waste Management Inc.)	X			
f. Has amount of sludge generated changed significantly since last inspection				X
g. Adequate sludge storage provided at plant		X		
h. Land application sites monitored and inspected per SMP				X
i. Records kept in accordance with state and federal law		X		
j. Any complaints received in last year regarding sludge		X		
k. Is sludge adequately processed (digestion, dewatering, pathogen control)		X		

Comments: *Pages 5 through 16 of this report provide an additional sewage sludge land application checklist used during this inspection.

*(c) a portion of the permittee's sludge is adequately disposed by a contractor in a landfill. Another portion of the permittee's sludge has been inadequately disposed by land application on fields adjacent to the WWTP. As was indicated in the last inspection report, land application of sludge must occur in accordance with the Ohio EPA Sludge Rules contained in the Ohio Administrative Code 3745-40. As indicated in the sludge inspection checklist, sludge produced in this WWTP must receive additional treatment prior to land application.

The current method of sludge treatment is to send secondary sludge to a series of two aerated holding tanks, with a capacity of approximately 12,000 gallons each. Sewage sludge is then removed from the aerated tanks and sent to the

be it press on site. After drying, the sewage sludge is currently being sent to landfill. Normal practice included land applying the sewage sludge on two sites located next to the treatment plant.

During the inspection, the following deficiencies were discovered in regards to sewage sludge management and record keeping:

- OAC 3745-40-04(D) states the following:

"Bulk sewage sludge shall be land applied at a rate that is equal to or less than the agronomic rate..."

At the time of my inspection, it was not clear whether an agronomic rate calculation was being performed for each field where Pataskala WWTP sewage sludge is land applied. The Pataskala WWTP shall calculate agronomic rates for each site where sewage sludge is to be land applied before land application resumes. An example of how to calculate agronomic rates, as well as an agronomic rate worksheet may be found in DSW Policy 0100.028. The policy may be downloaded at http://www.epa.state.oh.us/dsw/policy/01_28u_nc.pdf or a hard copy will be mailed upon request.

- OAC 3745-40-05(K) states the following:

"One of the class A pathogen requirements in paragraphs (N)(1) to (N)(6) of this rule or one of the class B pathogen requirements in paragraphs (O)(1) to (O)(3) of this rule and ... shall be met when sewage sludge is applied to the land."

In previous annual sewage sludge reports, the treatment plant reported meeting pathogen reduction through aerobic digestion. However, upon inspection of the plant there were no records to verify this claim, and with the amount of sewage sludge produced on a daily basis it appears that it would be impossible to meet this pathogen reduction option with the current treatment system at the plant. At this time, the treatment plant should continue to landfill their sewage sludge or find another treatment plant to haul the sewage sludge to until the proposed upgrades for the facility can be completed. The current sewage sludge treatment system at the plant is not adequate to properly treat sewage sludge for land application. One possible temporary solution would be to install a dry storage area that would drain all leachate back to the head of the plant. With this installation the requirements for meeting air drying for pathogen reduction could potentially be met.

- OAC 3745-40-05(M) states the following:

"One of the vector attraction reduction requirements in paragraphs (Q)(1) to (Q)(10) of this rule shall be met when sewage sludge is applied to the land."

At the time of my inspection, a vector attraction reduction alternative was not being performed prior to land application. The treatment plant shall immediately start performing one of the vector attraction reduction requirements found in OAC 3745-40-05(Q) and develop and maintain records to verify compliance. Previous annual sewage sludge reports stated that the treatment plant met the immediate incorporation requirements for vector attraction reduction. However, this option requires the sewage sludge to be incorporated into the soil within six hours of application to the field. The time requirement for incorporation was not being met when the sewage sludge was land applied. If land application resumes, it is recommended that the treatment plant meet this option to fulfill the requirements for vector attraction reduction.

- OAC 3745-40-06(I) requires that the permittee who provides treatment to bulk sewage sludge develop and sign the following certification statements:

"I certify, under penalty of law, that the information that will be used to determine compliance with class (insert A or B) pathogen reduction alternative (insert one of the class A alternatives in paragraphs (N)(1) to (N)(6) of rule 3745-40-05 of the Administrative Code or one of the class B alternatives in paragraphs (O)(1) to (O)(3) of rule 3745-40-05 of the 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."

and

"I certify, under penalty of law, that the information that will be used to determine compliance with vector attraction reduction requirement (insert one of the vector attraction reduction requirements in paragraphs (Q)(1) to (Q)(8) of rule 3745-40-05 of the 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."

The WWTP shall develop these certification statements and sign them in accordance with paragraph 3745-31-04 of the Ohio Administrative Code (according to that paragraph the superintendent of the WWTP shall sign the statements) before land application resumes. These statements shall be developed and signed at the end of each reporting period to verify the pathogen and vector attraction reduction for that reporting period. The statements must be kept for 5 years and copies of the statements shall be submitted yearly with the annual sewage sludge use/disposal report.

- OAC 3745-40-06(1) requires that the permittee who provides treatment to bulk sewage sludge develop a description of how the pathogen reduction requirements of rule 3745-40-05 of the Administrative Code are met and a description of how the vector attraction reduction requirements of rule 3745-40-05 of the Administrative Code are met, and keep these descriptions for a minimum of five years and make them available to the Ohio EPA upon request.

At the time of the inspection, these descriptions were not available. The WWTP shall develop these descriptions to keep on file at the treatment plant before land application resumes.

During Ohio EPA's inspection, we instructed Mr. Kill that the City of Pataskala could no longer use the sites next to the treatment plant due to high phosphorous levels in the soil. Soil test results provided during the inspection for the application site next to the treatment plant showed soil phosphorous levels at 200 parts per million, well above the 150 parts per million amount allowed by rule for application. Also, Ohio EPA questions the use of these sites at all as upon review it was clear that there were no crops being grown onsite for harvest or pasturing animals. Instead of being used for agronomic purposes, it appears these sites were merely being used for disposal of the sewage sludge. Before land application resumes, new sites must be secured for land application where actual agronomic use of the sewage sludge will take place.

Ohio EPA is pleased to hear that there are many upgrades being proposed for sewage sludge treatment at the plant, including: preliminary screening, two new aerobic digesters, and a new sludge press. During our inspection, it was apparent that having the preliminary screening installed is a top priority as a large amount of manufactured inert materials are making their way into the sewage treatment train. Due to new regulations that are being proposed for sewage sludge, Ohio EPA suggests that the facility install screens with maximum openings of 3/8 inch or smaller. This would remove nearly all manufactured inert materials that may be a concern. For the two new digesters being proposed, Ohio EPA suggests that these digesters be sized so that they may each handle the volume of sewage sludge being produced adequately so that one or the other can be taken offline for maintenance when needed. Lastly, for the new sludge press it is imperative that the treatment plant install covered storage to house the dried sludge. Ohio EPA requires a minimum of 120 days of sewage sludge storage at the treatment plant. The covered storage should be built to handle at least the amount of sewage sludge that will be produced in 120 days.

On April 15, 2009 permittee staff and Ohio EPA staff met for further discussion of both short and long term sludge treatment options. The permittee intends further review of its sludge and sites available for land application. The permittee will be submitting a Permit to Install for installation of a sludge press. The press will be installed as Phase I of the overall plant upgrade. A separate PTI will be submitted later this year for Phase II of the WWTP upgrade. Permittee staff indicated that arrangements have been made to plant corn this year on sludge sites adjacent to the WWTP.



SEWAGE SLUDGE LAND APPLICATION INSPECTION

Date of Inspection: 3/25/09

Inspector Name: JACOB HOWDYSHILL

MAYOR + COUNCIL

Facility Name PATASKALA

Facility Address: 388 SHAWNEE LOOP S
City: PATASKALA
Zip: 43062

Mailing Address: 621 W. BROAD ST.
City: PATASKALA
Zip: 43062

Contacts Present

Name: STEPHEN KILL
Title: WW SUPERINTENDENT
Phone: (614) 554-3649
Fax: (740) 927-2917

Name: JAN RICE
Title:
Phone:
Fax:

I. Facility Information

Facility Background

Average Daily Flow (MGD)	0.82 #
Sewage Sludge Class	EQ (B) Unknown
Sewage Sludge Storage Capacity (Days)	2
Contracted Alternative (if applicable)	LANDFILL

Facility Sewage Sludge Treatment Process(es)

Treatment Process	# Units	Notes
AERATED DIGESTERS	2	~12,000 GALLONS EACH
BELT PRESS	1	SMALL
SAND DRYING BEDS	2	NOT IN USE

CONTRACTOR
CONTRACT

II. Management Practices

General Facility Sewage Sludge Treatment

Yes <input checked="" type="radio"/> No <input type="radio"/> N/A	1. Are the sewage sludge treatment units being operated/maintained in accordance with the manufacturer's specifications?
Yes <input type="radio"/> No <input checked="" type="radio"/> N/A	2. Does the facility have adequate equipment redundancy (ie. back-up sewage sludge treatment units)?
Yes <input checked="" type="radio"/> No <input type="radio"/> N/A	3. Does the facility have any plans for upgrades to any of the sewage sludge treatment units? If so, explain: 2 NEW DIGESTERS NEW BELT PRESS SCREENING COVERED STORAGE
Yes <input type="radio"/> No <input checked="" type="radio"/> N/A	4. Does the facility have a contingency plan for sewage sludge disposal?
Yes <input type="radio"/> No <input checked="" type="radio"/> N/A	5. Is the sewage sludge handling operation adequate to manage the volume of sewage sludge generated?
Comments:	CONTINGENCY PLAN WILL BE TOP PRIORITY UNTIL UPGRADES.

Drying Beds, Gravity Thickener, Centrifuge, and Dissolved Air Floatation

N/A

Average percent (%) solids before thickening:		Average percent (%) solids before thickening:	
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Yes <input type="radio"/> No <input type="radio"/> N/A	1. Is primary unstabilized sewage sludge fed to the drying beds, gravity thickener, or centrifuge?
Yes <input type="radio"/> No <input type="radio"/> N/A	2. Is the sewage sludge mixed with other materials, including coagulants, before or after thickening?

Average percent (%) solids before mixing sewage sludge with other materials:	
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Comments:	
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Aerobic Digestion

N/A

	1. Sewage sludge fed to the aerobic digester includes: <input type="checkbox"/> Primary <input checked="" type="checkbox"/> Secondary <input type="checkbox"/> Combined
Yes No <input checked="" type="checkbox"/> N/A	2. Aerobic digester is operated at proper temperature? <input type="checkbox"/> Cryophilic (<10° C = <50° F) <input type="checkbox"/> Mesophilic (10° to 42° C = 50° to 108° F) <input type="checkbox"/> Thermophilic (>42° C = >108° F)
Comments:	

Anaerobic Digestion

N/A

	1. Sewage sludge fed to the aerobic digester includes: <input type="checkbox"/> Primary <input type="checkbox"/> Secondary <input type="checkbox"/> Combined
	2. Anaerobic digester operating mode: <input type="checkbox"/> High Rate* <input type="checkbox"/> Low Rate <small>*Utilize a combination of active mixing and elevated temperatures.</small>
Yes No N/A	3. Aerobic digester is operated at proper temperature? <input type="checkbox"/> Cryophilic (35° C = 95° F) <input type="checkbox"/> Thermophilic (55° C = 131° F)
Comments:	

Composting

N/A

	1. Type of sewage sludge composting performed: <input type="checkbox"/> In Vessel <input type="checkbox"/> Static Piles <input type="checkbox"/> Windrows
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	2. Type of sewage sludge composted includes: <input type="checkbox"/> Primary <input type="checkbox"/> Secondary <input type="checkbox"/> Combined
Yes No N/A	3. Is the moisture content of the composting operation monitored?
Yes No N/A	4. Is the compost mixed? If so, number of turnings: <input type="text"/>
Yes No N/A	5. Is the oxygen content of the compost monitored?
Yes No N/A	6. Is the temperature of the compost monitored?
Yes No N/A	7. Are total and total volatile solids of the compost monitored?
Yes No N/A	8. Active Phase (days): <input type="text"/> Curing Phase (days): <input type="text"/>
Comments:	

Land Application

N/A

	1. Sewage sludge is applied to: <input checked="" type="checkbox"/> Authorized Sewage Sludge Site <input type="checkbox"/> Unauthorized Sewage Sludge Site <input type="checkbox"/> Forest <input type="checkbox"/> Reclamation Site <input type="checkbox"/> Lawn or Garden <input type="checkbox"/> Public Contact Site (ie. park, etc.)
--	--

Yes No N/A

2. Are Class A pathogen reduction requirements met (indicate method being performed)?

- Alt. 1 - Fecal Coliform <1,000 MPN/g total solids, or Salmonella <3 MPN/4 g total solids, and time/temperature:
 - >7% solids at >50° C (>122°F) for >20 minutes (no warmed gases or immiscible liquid).
 - >7% solids at >50° C (>122°F) for >15 seconds (warmed gases or immiscible liquid).
 - <7% solids at X° C for >15 seconds to <30 minutes.
 - <7% solids at >50° C (>122°F) for >30 minutes.

- Alt. 2 - Fecal Coliform <1,000 MPN/g total solids, or Salmonella <3 MPN/4 g total solids, and pH > 12 for 72 hours.

- Alt. 3 - Fecal Coliform <1,000 MPN/g total solids, or Salmonella <3 MPN/4 g total solids, and other processes:
 - Enteric virus is <1 plaque forming unit (PFU) per 4 grams of total solids (TS) **PRIOR** to pathogen treatment (PT).
 - Enteric virus is >1 PFU per 4 grams of TS prior to PT but is <1 per 4 grams of TS **AFTER** PT.
 - Helminth ova is <1 per 4 grams of TS **PRIOR** to PT.
 - Enteric virus >1 PFU per 4 grams of TS prior to PT, but is <1 per 4 grams of TS **AFTER** PT.

- Alt. 4 - Fecal Coliform <1,000 MPN/g total solids, or Salmonella <3 MPN/4 g total solids, and unknown processes:
 - Enteric virus is <1 PFU per 4 grams of TS at disposal.
 - Helminth ova is <1 per 4 grams of TS at disposal.

- Alt. 5 - Fecal Coliform <1,000 MPN/g total solids, or Salmonella <3 MPN/4 g total solids, and PFRP:
 - 1. Composting.
 - 2. Heat drying.
 - 3. Heat treatment.
 - 4. Thermophilic aerobic digestion.
 - 5. Beta ray irradiation.
 - 6. Gamma ray irradiation.
 - 7. Pasteurization.

- Alt. 6 - Equivalent process.

Yes <input checked="" type="radio"/> No <input type="radio"/> N/A	<p>3. Are Class B pathogen reduction requirements met (indicate method being performed)?</p> <p><input type="checkbox"/> Alt. 1 -Geometric mean of seven Fecal Coliform samples with <2,000,000 MPN/g total dry solids or <2,000,000 Colony Forming Units/g total dry solids.</p> <p><input type="checkbox"/> Alt. 2 - PSRP 1 aerobic digestion. Mean cell residence time and temperature shall be between 40 days at 20°C (68°F) and 60 days at 15°C (59°F).</p> <p>Average mean cell residence time (days): <input type="text"/></p> <p>Average temperature (°C) : <input type="text"/></p> <p><input type="checkbox"/> PSRP 2 air drying. Sewage sludge dried on sand beds or basins for 3 months at an ambient average daily temperature >0°C (>32°F)</p> <p><input type="checkbox"/> PSRP 3 anaerobic digestion. Mean cell residence time and temperature shall be between 15 days at 35°-55°C (95°-131°F) and 60 days at 20°C (68°F).</p> <p>Average mean cell residence time (days): <input type="text"/></p> <p>Average temperature (°C) : <input type="text"/></p> <p><input type="checkbox"/> PSRP 4 composting. Sewage sludge temperature is raised to >40°C (>104°F) for 5 days. Temperature must exceed 55°C (>131°F) for 4 hours during the 5 day period.</p> <p><input type="checkbox"/> PSRP 5 lime treatment. Lime is added to sewage sludge to raise the pH to 12 after 2 hours of contact.</p>
Yes <input checked="" type="radio"/> No <input type="radio"/> N/A	<p>4. Are the Class B signage requirements being satisfied?</p>

Yes No N/A	5. Are Class B site restrictions being practiced (indicate restrictions being performed)?
	<p><input type="checkbox"/> Food crops (above ground) are harvested >14 months after sewage sludge application.</p> <p><input type="checkbox"/> Food crops (below ground) are harvested >20 months after sewage sludge application when sewage sludge remains on ground >4 months before soil incorporation.</p> <p><input type="checkbox"/> Food crops (below ground) are harvested >38 months after sewage sludge application when sewage sludge remains on ground <4 months before soil incorporation.</p> <p><input checked="" type="checkbox"/> Food crops, feed crops, and fiber crops are harvested >30 days after sewage sludge application.</p> <p><input checked="" type="checkbox"/> Animal grazing allowed on land only >30 days after sewage sludge application.</p> <p><input type="checkbox"/> Turf grown on land where sewage sludge was applied not harvested for >1 year if placed on land with high potential for public exposure or lawn.</p> <p><input type="checkbox"/> Public access restricted to land with a high potential for public exposure for 1 year.</p> <p><input checked="" type="checkbox"/> Public access restricted to land with a low potential for public exposure for 30 days.</p>

Yes <input checked="" type="radio"/> No <input type="radio"/> N/A	<p>6. Are bulk sewage sludge site restrictions being practiced (indicate restrictions being performed)?</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> No threatened or endangered species present or critical habitat affected at the site where sewage sludge is applied. <input checked="" type="checkbox"/> Bulk sewage sludge is not applied to frozen or snow covered ground unless applied >100 feet from waters of the state and appropriate ground cover maintained. <input checked="" type="checkbox"/> Bulk sewage sludge is not applied <33 feet from waters of the state. <input type="checkbox"/> Bulk sewage sludge is applied at a rate equal or less than the agronomic rate. <input checked="" type="checkbox"/> Label affixed no bag or information sheet provided to user of sold and given away sludge indicating name of sludge preparer, application instruction, and maximum annual whole sludge application rate.
Yes <input checked="" type="radio"/> No <input type="radio"/> N/A	<p>7. Are bulk sewage sludge general requirements being practiced (indicate restrictions being performed)?</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Sewage sludge is not applied to a site where the cumulative pollutant loading or annual application rate has been reached.. <input checked="" type="checkbox"/> Notification given to the sludge applier regarding total nitrogen content of the sludge. <input checked="" type="checkbox"/> Sufficient information required to comply with OAC 3745-40. <input checked="" type="checkbox"/> Sewage sludge site authorization packet submitted to Ohio EPA regarding the location of land application sites, appropriate NPDES permit numbers.

Yes <input type="radio"/> No <input checked="" type="radio"/> N/A	<p>7. Is a vector attraction reduction method being met (indicate method being performed)?</p> <p><input type="checkbox"/> 38% Volatile Solids Reduction.</p> <p>VS Red. = (VS In - VS Out) / ((VS In) - (VS, In x VS, Out)) x 100%</p> <p><input type="checkbox"/> 40-day bench scale test. Volatile Solids reduced <17% (anaerobic digestion only)</p> <p><input type="checkbox"/> 30-day test bench scale . Volatile Solids reduced <15% (aerobic digestion only)</p> <p><input type="checkbox"/> Specific Oxygen Uptake Rate <1.5 mg/hr/gm Total Solids at 20°C (68°F).</p> <p><input type="checkbox"/> Aerobic process for >14 days at >40°C (104°F) with average sewage sludge temperatures at 45°C (113°F).</p> <p><input type="checkbox"/> pH >12 for 2 hours and pH >11.5 for 22 hours.</p> <p><input type="checkbox"/> Sewage sludge with no unstabilized solids contains >75% Total Solids prior to mixing with other materials.</p> <p><input type="checkbox"/> Sewage sludge with unstabilized solids contains >90% Total Solids prior to mixing with other materials.</p> <p><input type="checkbox"/> Subsurface injection.</p> <p><input type="checkbox"/> Soil incorporation within 6 hours for Class B or within 8 hours for EQ.</p>
Comments:	WAS INCORPORATING, JUST NOT WITHIN 6 HOURS

Other Management Practices

N/A

	<p>1. The facility performs another sewage sludge treatment process (indicate which other management practice is being performed)</p> <p><input type="checkbox"/> Surface Disposal.</p> <p><input checked="" type="checkbox"/> Landfilling.</p> <p><input type="checkbox"/> PPG Lime Lakes.</p>
<p>Comments:</p>	

III. NPDES Permit Verification

<p><input checked="" type="radio"/> Yes No N/A</p>	<p>1. Are OAC 3745-40 sewage sludge frequency and monitoring parameters contained in the facility's current NPDES permit?</p>
	<p>2. Sewage sludge disposal practice(s):</p> <p>A. Land Application <input checked="" type="checkbox"/></p> <p>Bulk Sewage Sludge <input type="checkbox"/></p> <p>Bulk Material Derived from Sewage Sludge Sold or Given Away in Bag or Other Container <input type="checkbox"/></p> <p>B. Surface Disposal <input type="checkbox"/></p> <p>C. Sewage Sludge Incineration <input type="checkbox"/></p> <p>D. Onsite or Offsite Disposal <input type="checkbox"/></p> <p>E. Other: LANDFILL</p>
<p>Yes <input checked="" type="radio"/> No N/A</p>	<p>3. Is the sewage sludge disposal practice authorized by current NPDES permit? BUT, OAC</p>
<p><input checked="" type="radio"/> Yes No N/A</p>	<p>4. If the authorized sewage sludge disposal practice changes, will notification be given to Ohio EPA prior to the change?</p>
<p><input checked="" type="radio"/> Yes No N/A</p>	<p>5. The facility is utilizing sewage sludge land application sites that have been previously authorized by Ohio EPA.</p>
<p>Comments:</p>	<p>LANDFILL STATION NOT IN CURRENT PERMIT, BUT IN NEW ONE.</p>

Monitoring and Reporting

<input checked="" type="radio"/> Yes	No	N/A	1. Is facility self-monitoring occurring at the frequencies specified for the parameters located in the facility's NPDES permit or OAC 3745-40?
<input checked="" type="radio"/> Yes	No	N/A	2. Is the facility reporting parameters using Ohio EPA form 4500?
<input checked="" type="radio"/> Yes	No	N/A	3. Is facility self-monitoring data available for all regulated pollutants for the previous five years?
<input checked="" type="radio"/> Yes	No	N/A	4. Do monthly operating reports show pollutant concentrations below ceiling concentrations shown in OAC 3745-40-05(F)(1)?
<input checked="" type="radio"/> Yes	No	N/A	5. Do monthly operating reports show pollutant concentrations below monthly average concentrations shown in OAC 3745-40-05(F)(3)?
Yes	No	<input checked="" type="radio"/> N/A	6. Are general requirements and management practices applied for sewage sludge not meeting monthly average concentrations shown in OAC 3745-40-05(F)(3)?
<input checked="" type="radio"/> Yes	No	N/A	7. Are sewage sludge records adequate to assess compliance with annual and/or cumulative pollutant loading rates?
Yes	<input checked="" type="radio"/> No	N/A	8. Are pathogen and vector attraction reduction method descriptions and certification statements available for the previous five years?
<input checked="" type="radio"/> Yes	No	N/A	9. Are records available for all sewage sludge use or disposal practices available for the previous five years?
<input checked="" type="radio"/> Yes	No	N/A	10. Have the facility's sewage sludge sites been tested for pH and Phosphorus within two years of land application?
<input checked="" type="radio"/> Yes	No	N/A	11. Are accurate records of sewage sludge volume or mass maintained for the previous five years?
Yes	<input checked="" type="radio"/> No	N/A	12. Are monitoring and analysis being performed more frequently than required by the facility's NPDES permit?
Yes	No	<input checked="" type="radio"/> N/A	If so, are the results being reported to Ohio EPA?
Yes	<input checked="" type="radio"/> No	N/A	13. Do sewage sludge treatment unit operation records verify compliance with pathogen reduction and vector attraction reduction requirements, when appropriate?
<input checked="" type="radio"/> Yes	No	N/A	14. Are sewage sludge samples taken at the locations specified in the facility's NPDES permit?

<input checked="" type="radio"/> Yes	No	N/A	15. Are sewage sludge sample locations and methods appropriate for obtaining representative samples?
<input checked="" type="radio"/> Yes	No	N/A	16. Sample collection procedures:
<input checked="" type="radio"/> Yes	No	N/A	A. Adequate sample volumes obtained?
<input checked="" type="radio"/> Yes	No	N/A	B. Proper preservation techniques utilized?
<input checked="" type="radio"/> Yes	No	N/A	C. Containers conform to appropriate analytical methods specified in OAC 3745-40?
<input checked="" type="radio"/> Yes	No	N/A	D. Samples analyzed within the appropriate time frames specified in OAC 3745-40?
<input checked="" type="radio"/> Yes	No	N/A	17. Are analytic results reported on a dry weight basis (mg/kg)?
<input checked="" type="radio"/> Yes	No	N/A	18. Are samples refrigerated subsequent to compositing?
<input checked="" type="radio"/> Yes	No	N/A	19. Are chain-of-custody procedures employed?
<input checked="" type="radio"/> Yes	No	N/A	20. Are the analytic methods used approved in OAC 3745-40?
Comments:			

Attachment "A"

City of Pataskala

Effluent Limitations Violations (4/1/07 – 1/31/09; note: discharge monitoring report data from 4/1/07 - 3/31/08 not available for OEPA review)

Outfall Monitoring Station 4PB00009001

Permit No	Reporting Period	Station	Reporting Code	Parameter	Limit Type	Limit	Reported Value	Violation Date
4PB00009*HD	May 2008	001	00610	Nitrogen, Ammonia (NH3	30D Conc	1.5	1.625	5/1/2008
4PB00009*HD	May 2008	001	00610	Nitrogen, Ammonia (NH3	7D Conc	2.3	3.8015	5/1/2008
4PB00009*HD	May 2008	001	00610	Nitrogen, Ammonia (NH3	7D Qty	7.0	9.47607	5/1/2008
4PB00009*HD	June 2008	001	31616	Fecal Coliform	7D Conc	2000	2550.09	6/1/2008
4PB00009*HD	July 2008	001	00610	Nitrogen, Ammonia (NH3	30D Conc	1.5	2.0956	7/1/2008
4PB00009*HD	July 2008	001	00610	Nitrogen, Ammonia (NH3	30D Qty	4.5	5.15586	7/1/2008
4PB00009*HD	July 2008	001	00610	Nitrogen, Ammonia (NH3	7D Qty	7.0	8.14146	7/1/2008
4PB00009*HD	July 2008	001	00610	Nitrogen, Ammonia (NH3	7D Conc	2.3	3.425	7/15/2008
4PB00009*HD	July 2008	001	00610	Nitrogen, Ammonia (NH3	7D Conc	2.3	3.525	7/22/2008
4PB00009*HD	September 2008	001	00610	Nitrogen, Ammonia (NH3	30D Conc	1.5	1.63375	9/1/2008
4PB00009*HD	September 2008	001	00610	Nitrogen, Ammonia (NH3	7D Conc	2.3	2.655	9/15/2008
4PB00009*HD	September 2008	001	00552	Oil and Grease, Hexane	1D Conc	10	12.58	9/23/2008
4PB00009*HD	December 2008	001	00610	Nitrogen, Ammonia (NH3	30D Conc	4.0	4.67748	12/1/2008
4PB00009*HD	December 2008	001	00610	Nitrogen, Ammonia (NH3	30D Qty	12.1	15.7396	12/1/2008
4PB00009*HD	December 2008	001	00610	Nitrogen, Ammonia (NH3	7D Conc	6.0	10.71	12/15/2008
4PB00009*HD	December 2008	001	00610	Nitrogen, Ammonia (NH3	7D Qty	18.2	31.0637	12/15/2008
4PB00009*HD	December 2008	001	00610	Nitrogen, Ammonia (NH3	7D Conc	6.0	6.4925	12/22/2008
4PB00009*HD	December 2008	001	00610	Nitrogen, Ammonia (NH3	7D Qty	18.2	28.8260	12/22/2008
4PB00009*HD	January 2009	001	00610	Nitrogen, Ammonia (NH3	7D Conc	6.0	6.84333	1/1/2009
4PB00009*HD	January 2009	001	00610	Nitrogen, Ammonia (NH3	7D Qty	18.2	21.1518	1/1/2009



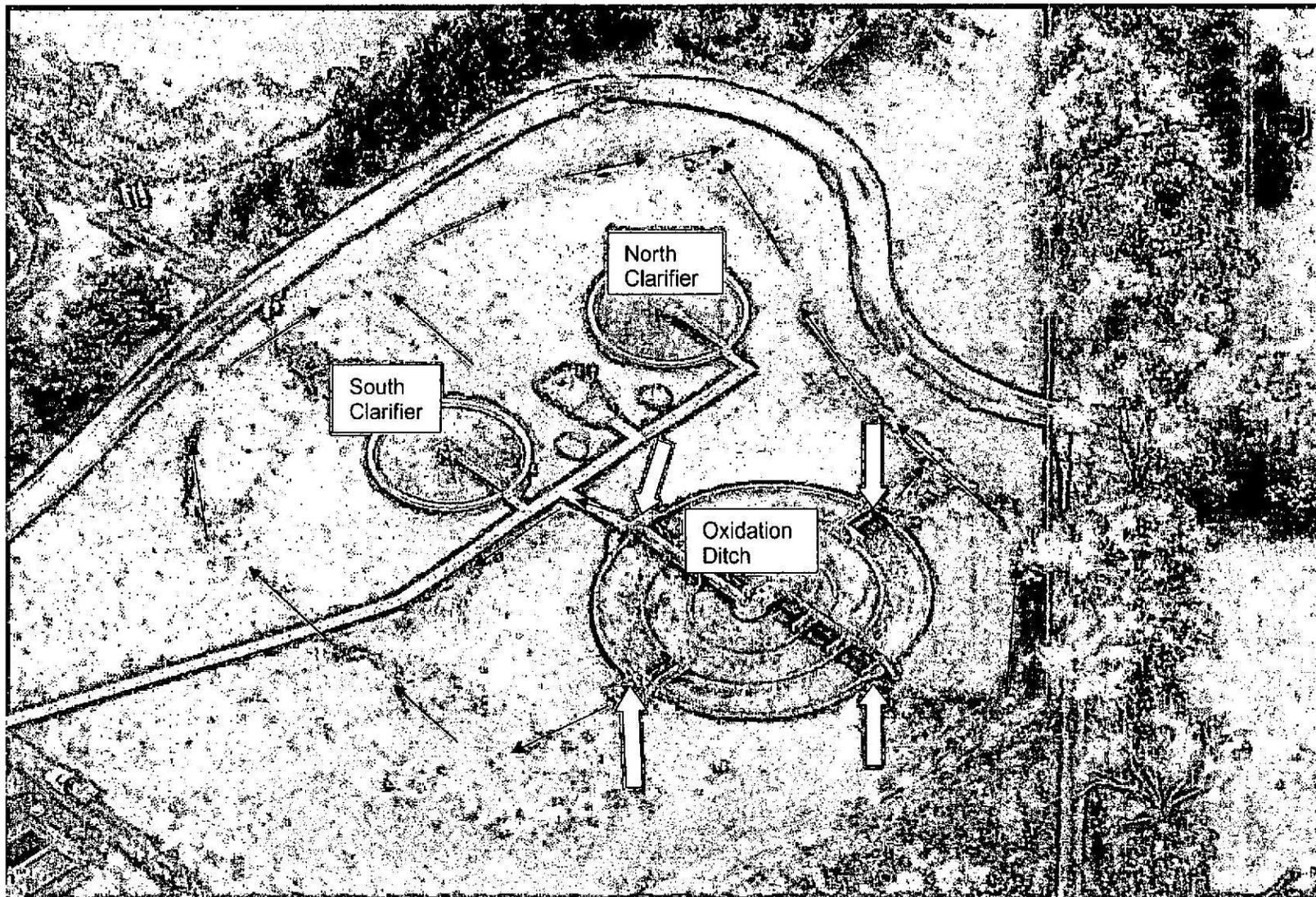


Figure 1. The white arrows in this older aerial photograph point to the location of four notches in the oxidation ditch external wall. Wastewater periodically overflows at these four locations into drainage ditches. The black arrows indicate direction of flow within the drainage ditches.

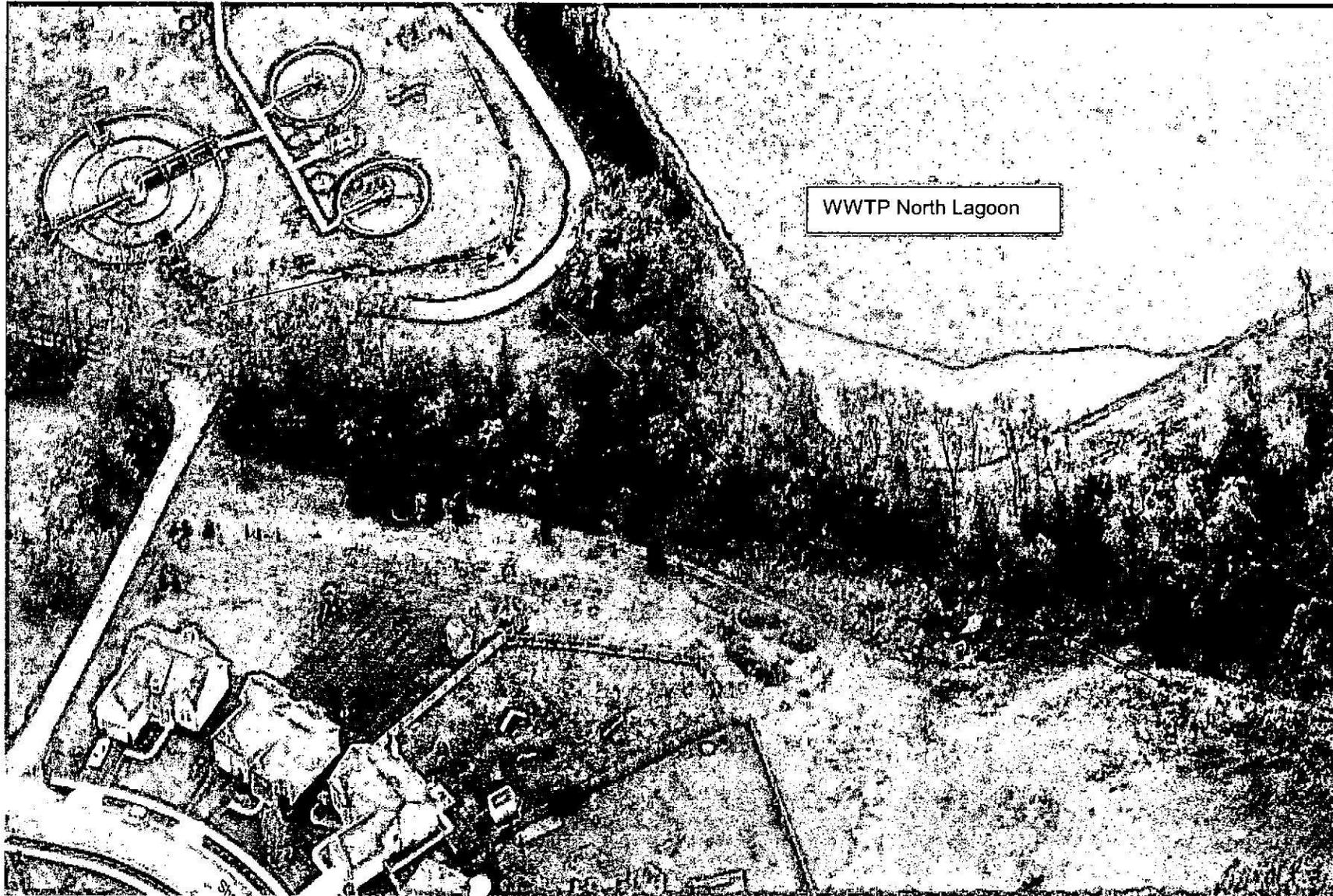


Figure 2. The black arrows in this older aerial photograph indicate direction of oxidation ditch overflows in drainage ditches.

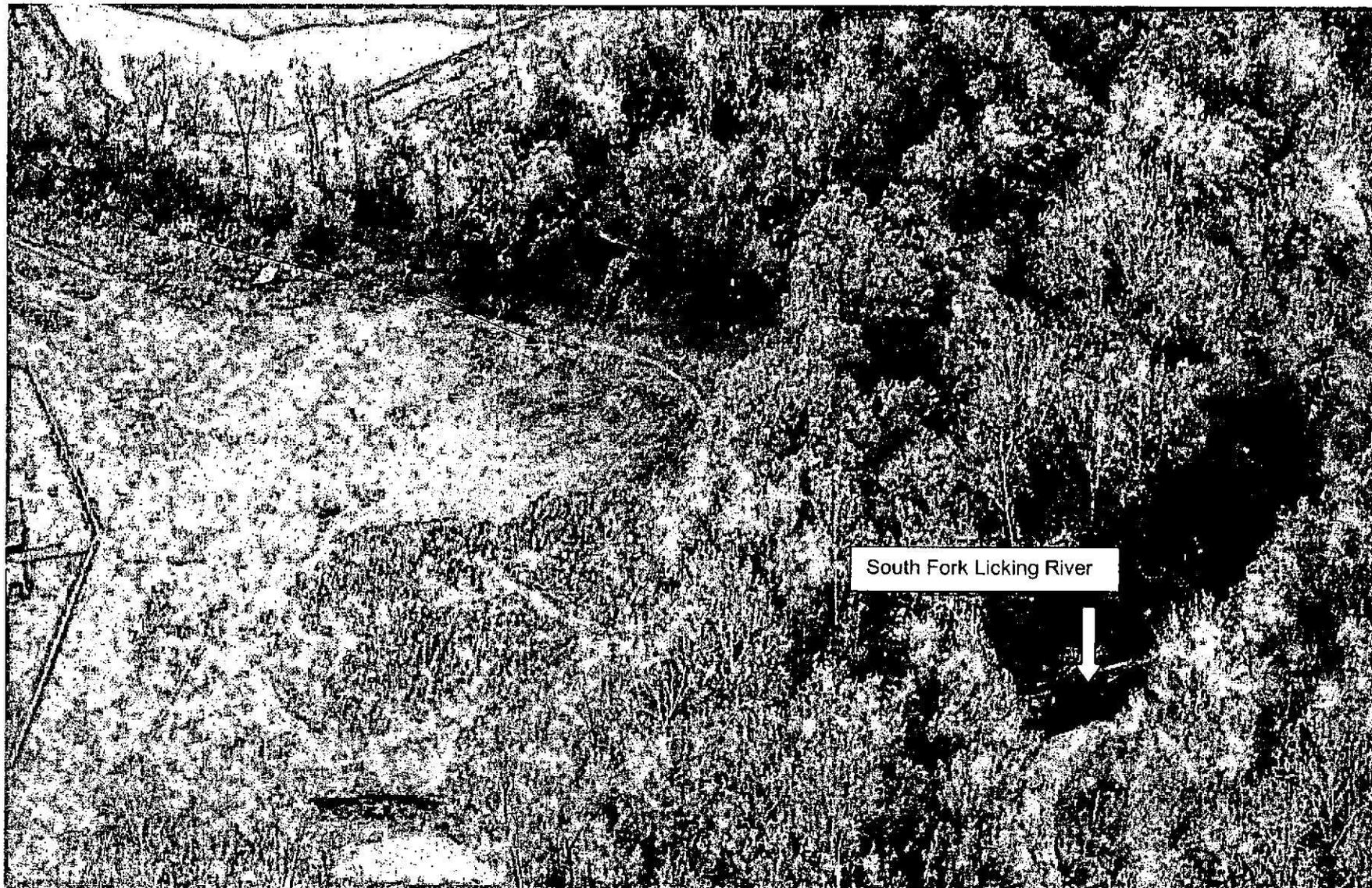


Figure 3. The black arrows in this older aerial photograph indicate direction of oxidation ditch overflows in drainage ditches. Overflows have not been reported as reaching the river.

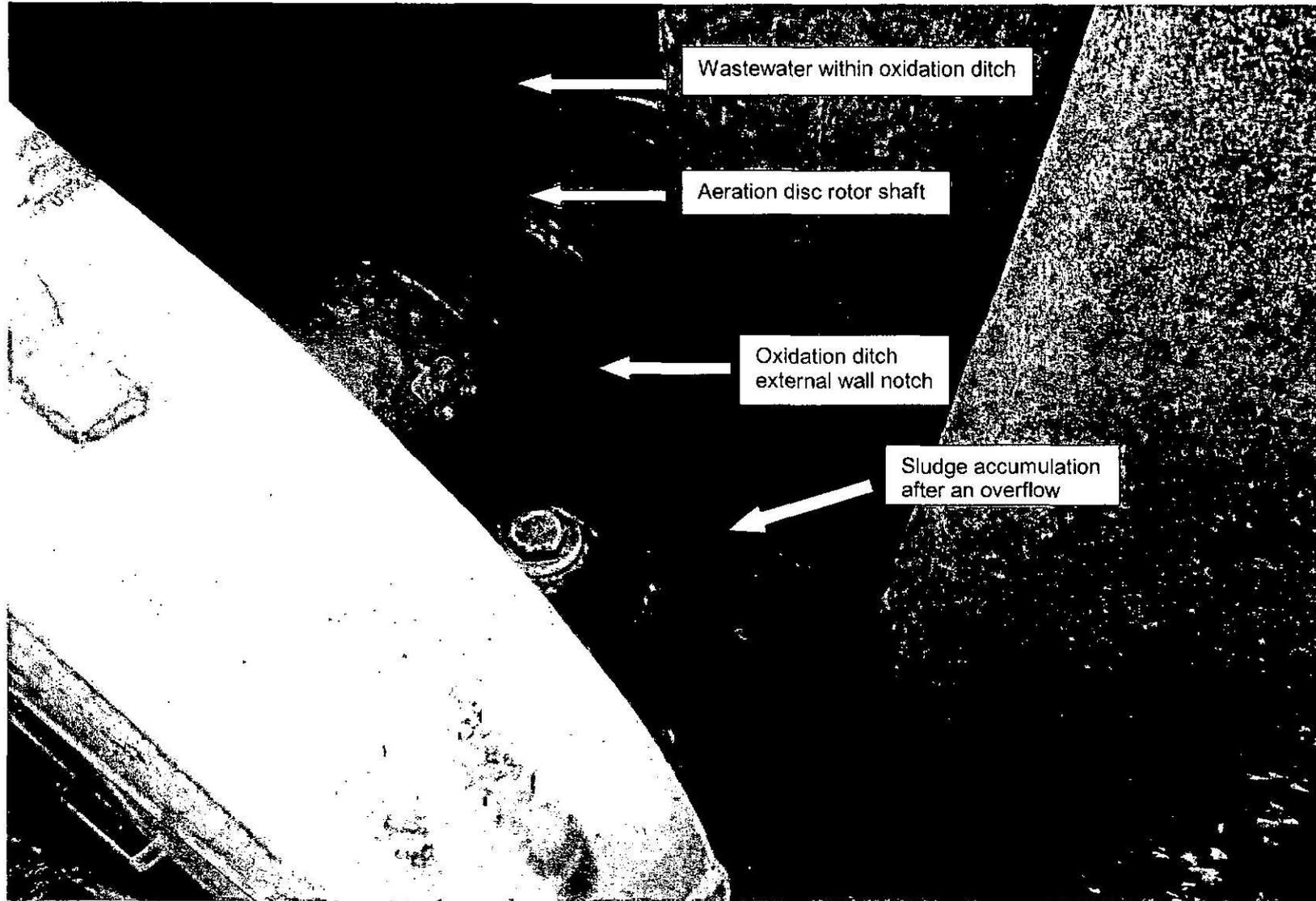


Figure 4. This is a photograph of one of the four notches in the oxidation ditch external wall through which wastewater can overflow into drainage ditches on the site.



Figure 5. Sludge remaining after an overflow from the oxidation ditch.

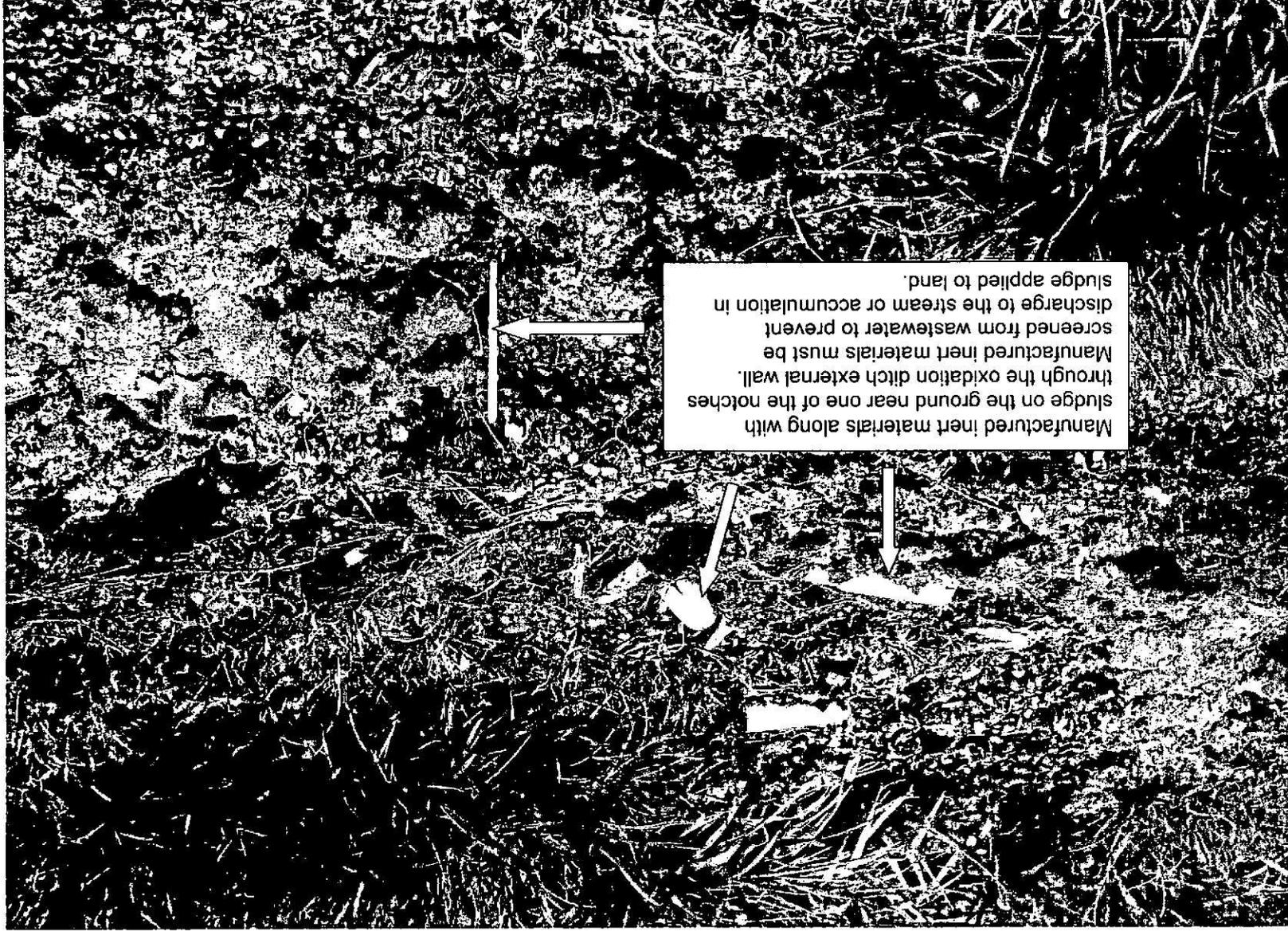


Figure 6.



Figure 7.

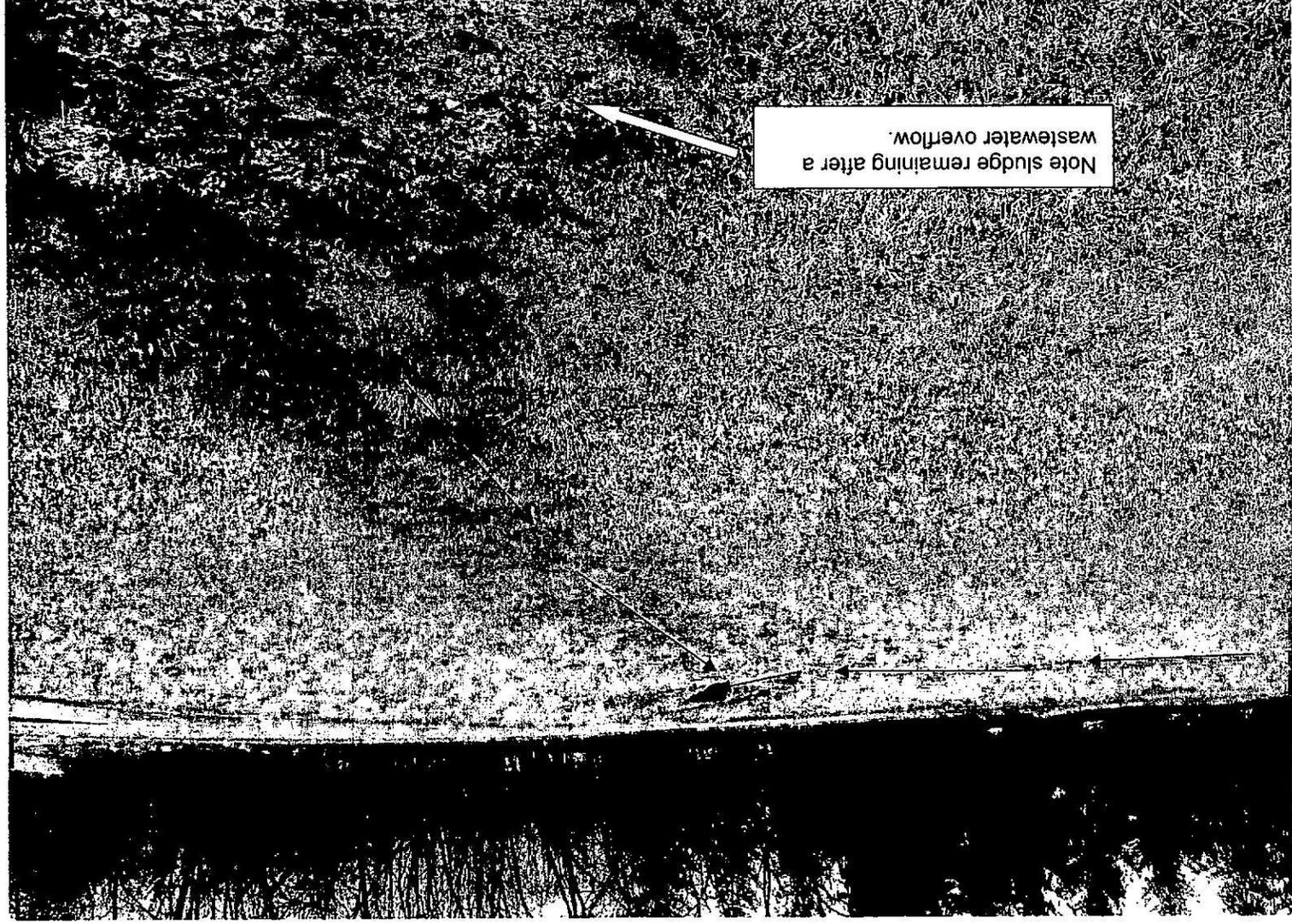


Figure 8. The black arrows indicate drainage path towards culvert beneath the WWTP driveway.

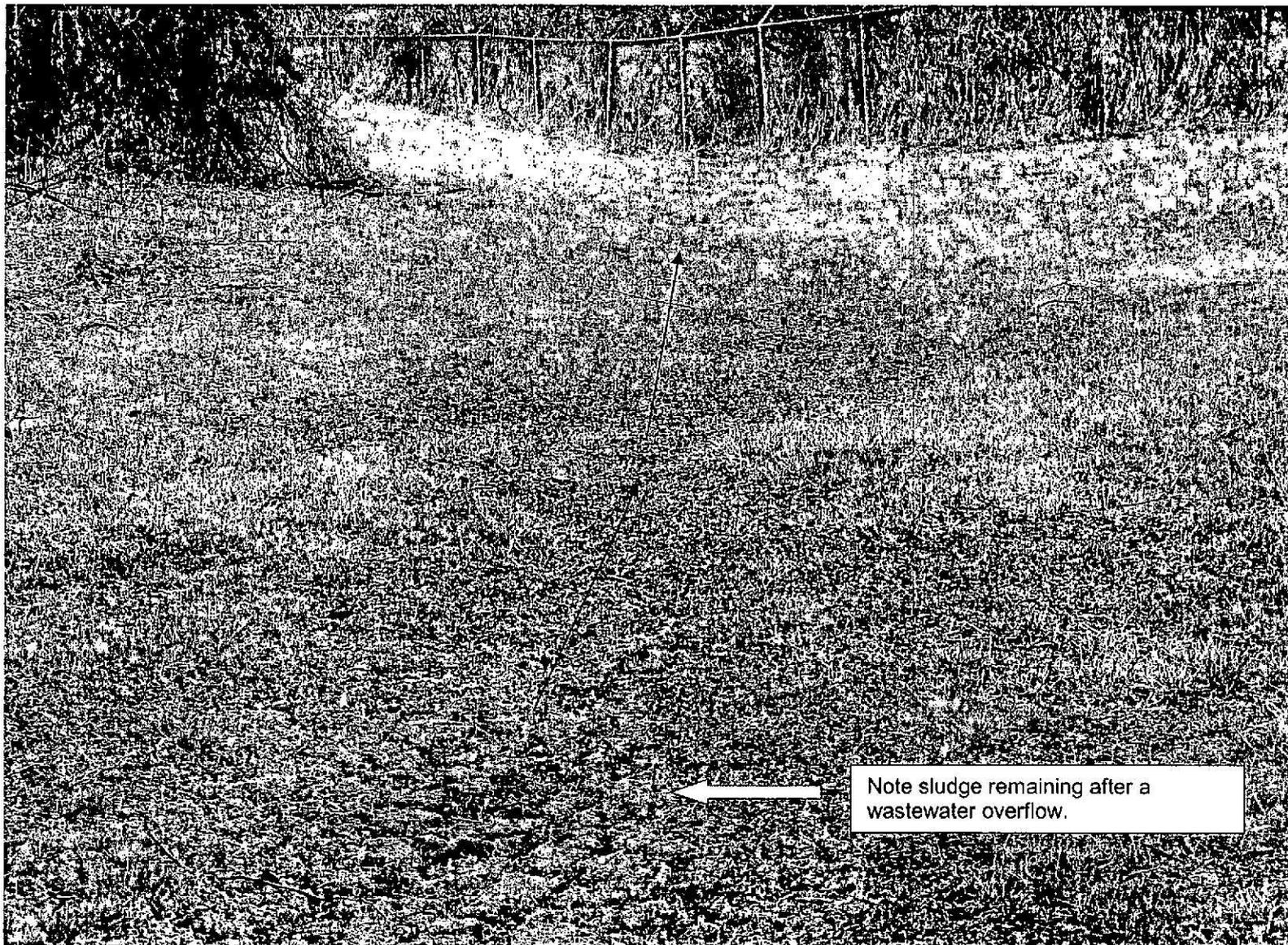


Figure 9. The black arrows indicate drainage path towards and onto property north of the WWTP security fence. At the time of this inspection sludge did not appear to have flowed beyond the fence.

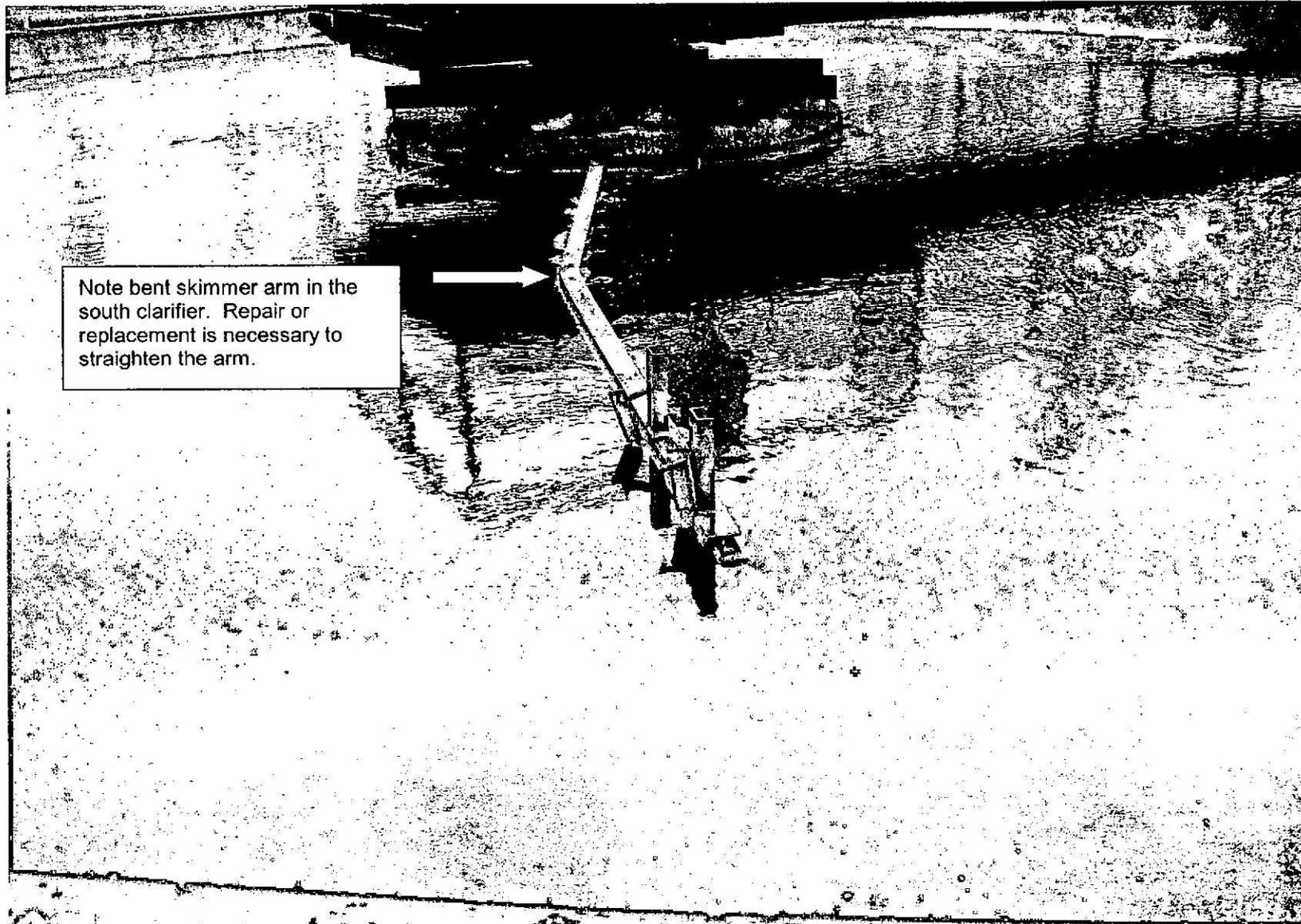


Figure 10.



Figure 11.

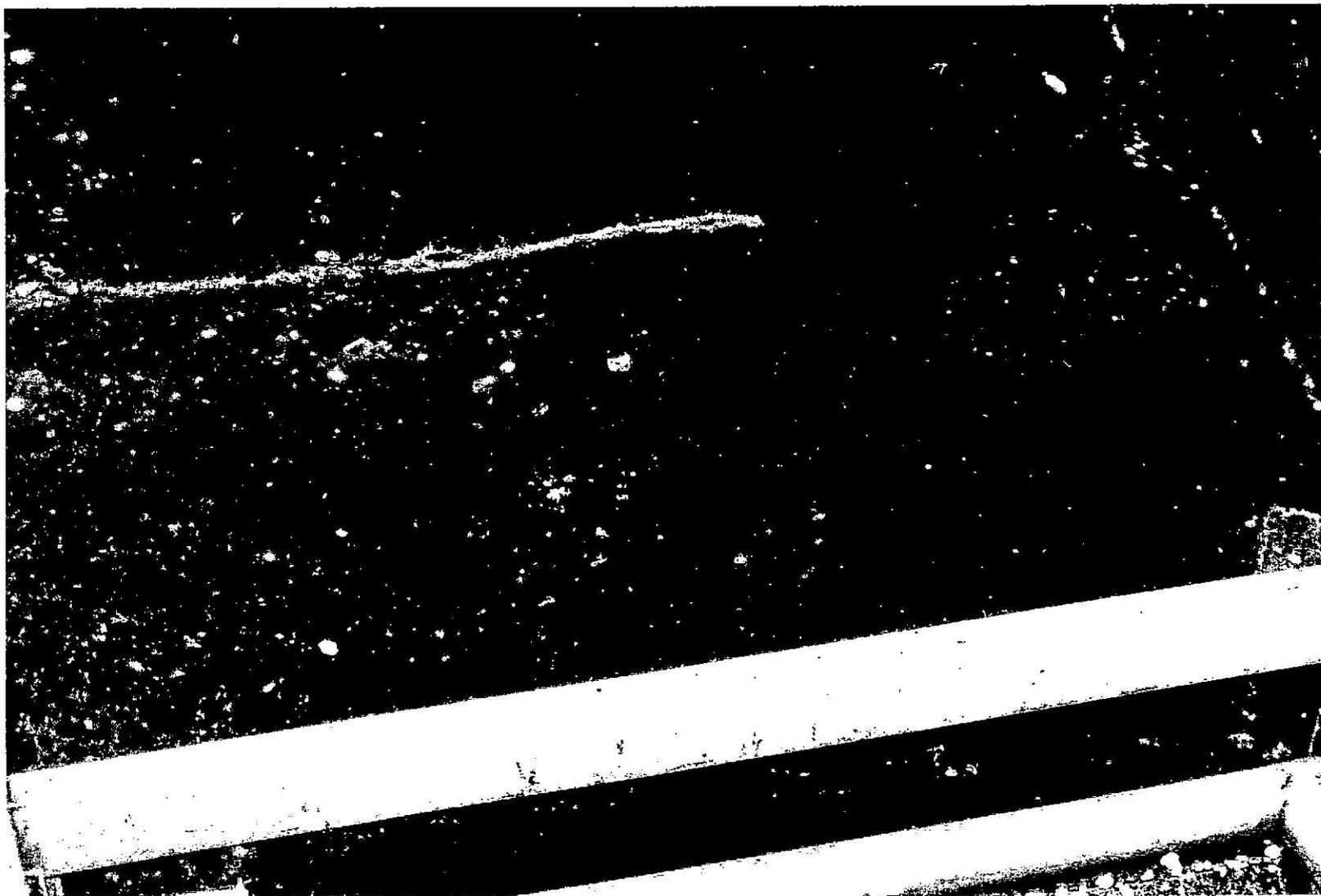


Figure 12. Note miscellaneous floating debris in wastewater immediately upstream from the effluent flow monitoring flume. Such debris should be captured and removed from the waste stream prior to reaching this point in the WWTP. Such debris should not be discharged to the river.

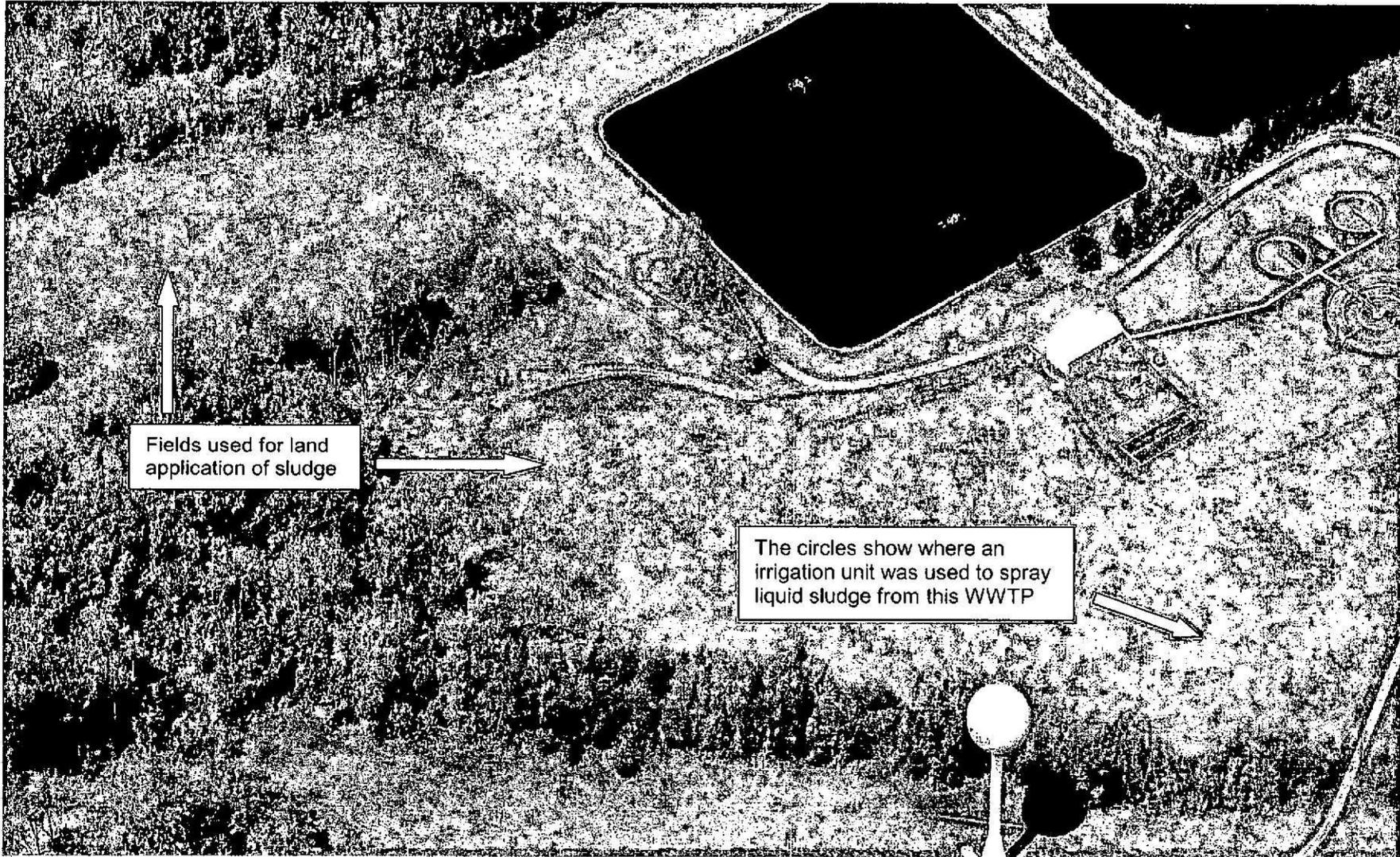


Figure 13. This older aerial photograph shows location of the only two sites used in the city's land application of sludge program.

