



**Environmental  
Protection Agency**

Ted Strickland, Governor  
Lee Fisher, Lt. Governor  
Chris Korleski, Director



\*1PB0001520070808\*

GREENE

JAMESTOWN STP

JACKSON, JOSHUA | 2007/08/08



State of Ohio Environmental Protection Agency

Southwest District Office

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Dayton, Ohio 45402-2911

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Ted Strickland, Governor  
Lee Fisher, Lt. Governor  
Chris Korleski, Director

August 7, 2007

Mayor & Council  
Village of Jamestown  
84 Seaman Drive, P.O. Box 148  
Jamestown, OH 45335

### Notice of Violation

**RE: Village of Jamestown WWTW/Compliance Evaluation Inspection Report  
NPDES Permit No. OH0025879/OEPA PERMIT NO. 1PB00015\*ED**

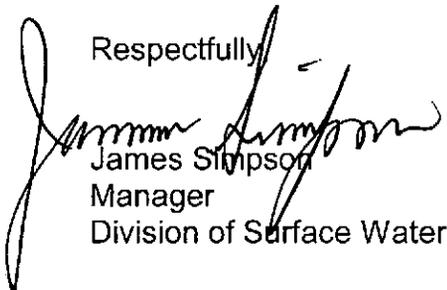
Ladies & Gentlemen:

On August 3, 2007, Joshua Jackson of this office conducted an NPDES Compliance Evaluation Inspection at the Village of Jamestown wastewater treatment works (WWTW). Dale Church and Steve Haines (representatives of the Village) were present during the inspection. The purpose of the inspection was to evaluate compliance with the terms and conditions of the NPDES Permit.

A copy of Mr. Jackson's report on the inspection is enclosed. All areas received "Satisfactory" ratings with the exception of the "Collection System" section, which received a rating of "Unsatisfactory". **Please pay special attention to the compliance dates (items requiring correction) located throughout the report.**

Thank you and your staff for the time extended during the inspection process. If you have any questions, please feel free to contact Mr. Jackson by phone at (937) 285-6029 or by e-mail at [joshua.jackson@epa.state.oh.us](mailto:joshua.jackson@epa.state.oh.us).

Respectfully,



James Simpson  
Manager  
Division of Surface Water

Cc: Dale Church, Village of Jamestown (w/report)

Enclosures



4-21



State of Ohio Environmental Protection Agency  
Southwest District Office

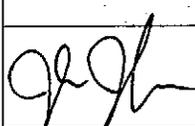
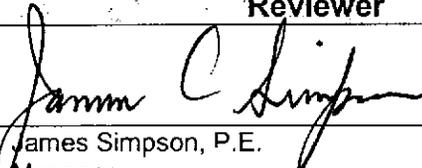
NPDES Compliance Inspection Report

Section A: National Data System Coding					
Permit #	NPDES#	Month/Day/Year	Inspection Type	Inspector	Facility Type
1PB00015*ED	OH0025879	8/3/2007	C	S	II

Section B: Facility Data		
Name and Location of Facility Inspected	Entry Time	Permit Effective Date
Jamestown Wastewater Treatment Works 35 South Limestone Street Jamestown, Greene County	9:30 a.m.	5/1/2003
	Exit Time	Permit Expiration Date
	1:00 p.m.	1/31/2008
Name(s) and Title(s) of On-Site Representatives	Phone Number(s)	
Dale Church, Supt. Water and Wastewater Steve Haines, Asst. Supt.	937-675-2951	
Name, Address and Title of Responsible Official	Phone Number	
Mayor and Council Village of Jamestown 84 Seaman Drive Jamestown, OH 45335	937-675-5311	

Section C: Areas Evaluated During Inspection					
(S = Satisfactory, M = Marginal, U = Unsatisfactory, N = Not Evaluated)					
S	Permit	S	Flow Measurement	N	Pretreatment
S	Records/Reports	N	Laboratory	S	Compliance Schedule
S	Operations & Maintenance	S	Effluent/Receiving Waters	S	Self-Monitoring Program
S	Facility Site Review	N	Sludge Storage/Disposal	N	Other
U	Collection System				

Section D: Summary of Findings (Attach additional sheets if necessary)
See Attached Report.

Inspector	Reviewer
	
8-7-07	8-07-07
Joshua Jackson Division of Surface Water Southwest District Office	James Simpson, P.E. Manager Division of Surface Water Southwest District Office
Date	Date



Permit # : 1PB00015\*ED  
NPDES # : OH0025879

Sections E thru K: Complete on all inspections as appropriate  
Y – Yes, N – No, N/A – Not Applicable, N/E – Not Evaluated

**Section E: Permit Verification**

Inspection observations verify the permit

- (a) Correct name and mailing address of permittee ..... Y
- (b) Correct name and location of receiving waters..... Y
- (c) Product(s) and production rates conform with permit application (Industries)..... Y
- (d) Flows and loadings conform with NPDES permit..... Y
- (e) Treatment processes are as described in permit application... Y
- (f) New treatment process(es) added since last inspection..... Y
- (g) Notification given to State of new, different or increased discharges..... N/A
- (h) All discharges are permitted..... Y
- (i) Number and location of discharge points are as described in permit..... Y

Comments/Status:

**Section E: Permit Verification**

- (a) Any significant violations since the last inspection..... N
- (b) Permittee is taking actions to resolve violations..... N/A
- (c) Permittee has a compliance schedule..... Y
- (d) Compliance schedule contained in NPDES permit
- (e) Permittee is meeting compliance schedule..... Y

Comments/Status:

Jamestown was given a schedule in the NPDES permit for achieving compliance with Phosphorus effluent limits during the summer months. The Jamestown WWTW is in compliance with the Phosphorus limits; by utilizing biological treatment only. To date, there has been no need for chemical addition (Alum).



**Section G: Operation & Maintenance**

**Treatment Works:**

Treatment facility properly operated and maintained

- (a) Standby power available.....generator  or dual feed ..... Y
- (b) Adequate alarm system available for power or equipment failures.. Y
- (c) All treatment units in service other than backup units..... Y
- (d) Wastewater Treatment Works classification (OAC 3745-7)..... II
- (e) Operator of Record holds unexpired license of class required by permit..... Y  
 Class: III
- (f) Copy of certificate of Operator of Record displayed on-site..... N
- (g) Minimum operator staffing requirements fulfilled (OAC 3745-7)... Y
- (h) Routine and preventative maintenance scheduled/performed... Y
- (i) Any major equipment breakdown since last inspection..... N
- (j) Operation and maintenance manual provided and maintained.... Y
- (k) Any plant bypasses since last inspection..... N
- (l) Regulatory agency notified of bypasses..... N/A  
 On MORs  and/or Spill Hotline (1-800-282-9378)
- (m) Any hydraulic and/or organic overloads since last inspection..... N

**Record Keeping:**

- (a) Log book provided..... N
- (b) Format of log book (i.e. computer log, hard bound book)
- (c) Log book(s) kept onsite (in an area protected from weather)..... N/A
- (d) Log book contains the following:
  - I. Identification of treatment works..... N/A
  - II. Date/times of arrival/departure for Operator of Record and any other operator required by OAC 3745-7..... N/A
  - III. Daily record of operation and maintenance activities (including preventative maintenance, repairs and request for repairs)..... N/A
  - IV. Laboratory results (unless documented on bench sheets)... N/A
  - V. Identification of person making log entries..... N/A
- (d) Has the operator of record submitted written notification to the permittee, Ohio EPA and (if applicable) any local environmental agencies when a collection system overflow, treatment plant bypass or effluent limit violation has occurred..... N



**Section G: Operation & Maintenance (con't)**

**Collection System:**

- (a) Percent combined system: %
- (b) Any collection system overflows since last inspection..... Y  
(CSO  and/or SSO )
- (c) Regulatory agency notified of overflows (SSOs)..... N
- (d) CSO O&M plan provided and implemented..... N/A
- (e) CSOs monitored and reported in accordance with permit..... N/A
- (f) Portable pumps used to relieve system..... Y
- (g) Lift station alarms provided and maintained..... Y
- (h) Are lift stations equipped with permanent standby power  
or equivalent..... N
- (i) Is there an inflow/infiltration problem (separate sewer system),  
or were there any major repairs to collection system since  
last inspection..... N
- (j) Any complaints received since last inspection of basement flooding Y
- (k) Are any portions of the sewer system at or near capacity..... Y

**Comments/Status:**

The WWTW does not have a telemetry system for notification of equipment failure (hard line malfunction). The Village has visual alarms for equipment failure; members of the police department check the WWTW during off hours. Even if this system of police inspection has worked, without some sort of continuous notification system (i.e. telemetry), the possibility of a WWTW bypass is increased.

There are 5 lift stations within the collection system. Three are equipped with visual alarms. According the operations staff, all lift stations have 2-3 days of detention time and they are checked daily. If a lift station would need to be off-line for an extended period of time, the operation staff would utilize a local septic hauler to pump out the lift station and haul sewage to the WWTW for treatment.



**Section H: Sludge Management**

- (a) Sludge management plan (SMP)  
Submitted date:                      Approval #:                      Not submitted     N/A
- (b) Sludge management plan current..... Y  
(c) Sludge adequately disposed..... Y  
(Method:land application)  
(d) If sludge is incinerated, where is ash disposed of  
(e) Is sludge disposal contracted..... Y  
(Name:Gary Hines-local farmer)  
(f) Has amount of sludge generated changed significantly since  
last inspection..... N  
(g) Adequate sludge storage provided at plant..... Y  
(h) Land application sites monitored and inspected per SMP..... N/E  
(i) Records kept in accordance with State and Federal law..... N/E  
(j) Any complaints received in last year regarding sludge..... N  
(k) Is sludge adequately processed (digestion, pathogen control)..... N/E

**Comments/Status:**

**Section I: Self-Monitoring Program**

**Flow Measurement:**

- (a) Primary flow measuring device operated and maintained..... Y  
Type of device: Ultrasonic & Parshall flume  Ultrasonic & Weir  Weir   
Calculated from influent  Other  (Specify:                      )
- (b) Calibration frequency adequate ..... Y  
(Date of last calibration: 4/1/2007)  
(c) Secondary instruments operated and maintained..... Y  
(d) Flow measurement equipment adequate to handle full range  
of flows..... Y  
(e) Actual flow discharged is measured..... Y  
(f) Flow measuring equipment inspection frequency  
 Daily  Weekly  monthly  other

**Comments/Status:**



**Section I: Self-Monitoring Program (con't)**

**Sampling:**

- (a) Sampling location(s) are as specified by permit..... Y
- (b) Parameters and sampling frequency agree with permit..... Y
- (c) Permittee uses required sampling method..... Y
- (d) Sample collection procedures are adequate..... Y
  - (i) Samples refrigerated during compositing..... Y
  - (ii) Proper preservation techniques used..... N/E
  - (iii) Containers and sample holding times prior to analysis conform with 40 CFR 136.3..... N/E
- (e) Monitoring records (i.e., flow, pH, DO) maintained for a minimum of three years including all original strip chart recordings (i.e, continuous monitoring instrumentation, calibration and maintenance records)..... Y
- (f) Adequate records maintained of sampling date, time, location, etc.. Y

**Laboratory:**

*General*

- (a) EPA approved analytical testing procedures used (40 CFR 136.3).. N/E
  - (b) If alternate analytical procedures are used, proper approval has been obtained..... N/E
  - (c) Analyses being performed more frequently than required by permit. N
  - (d) If (c) is yes, are results in permittee's self-monitoring report..... N/A
  - (e) Commercial laboratory used..... Y
- Parameters analyzed by commercial lab: All parameters with the exception of pH, DO, Temperature, CBOD5 and TSS (measured at WWTW)  
Lab name: MASI (Jones & Henry Labs tests for low-level mercury)

*Quality Control/Quality Assurance*

- (f) Quality assurance manual provided and maintained..... N
  - (g) Satisfactory calibration and maintenance of instruments/equipment. Y
  - (h) Adequate records maintained..... N
  - (i) Results of latest USEPA quality assurance performance sampling program:  Satisfactory  Marginal  Unsatisfactory
- Date:

**Comments/Status:**

Operators should keep a log book of calibrations performed on each piece of testing equipment (i.e., pH meter, DO probe, etc.)



**Section J: Effluent/Receiving Water Observations**

Outfall Number	Oil sheen	Grease	Turbidity	Visible Foam	Visible Floating Solids	Color	Other
001	none	none	none	minor amounts	none	clear	

**Comments/Status:**

Discharge and receiving stream were free and clear of solids attributed to the WWTW.

**Section K: Multimedia Observations**

- (a) Are there indications of sloppy housekeeping or poor maintenance in work and storage areas or laboratories..... N
- (b) Do you notice staining or discoloration of soils, pavement or floors.. N
- (c) Do you notice distressed (unhealthy, discolored, dead) vegetation.. N
- (d) Do you see unidentified dark smoke or dust clouds coming from sources other than smokestacks..... N
- (e) Do you notice any unusual odors or strong chemical smells..... N
- (f) Do you see any open or unmarked drums, unsecured liquids, or damaged containment facilities..... N

If any of the above are observed, ask the following questions:

- (1) What is the cause of the condition?
- (2) Is the observed condition or source a waste product?
- (3) Where is the suspected contaminant normally disposed?
- (4) Is this disposal permitted?
- (5) How long has the condition existed and when did it begin?

**Comments/Status:**



### Inspection Report

A permit to install for the upgrade/expansion of the WWTW was approved by Ohio EPA on June 20, 2002. Construction was completed in 2003. The Village of Jamestown wastewater treatment works (WWTW) is designed for an average daily flow of 0.9 MGD (Peak hydraulic capacity of 4.15 MGD). From January of 2006 – June 2007, Jamestown reported an average daily flow of 0.52 MGD. During this same period of the following effluent violations were reported:

#### EFFLUENT LIMIT VIOLATIONS (Period of Review: January 2006 – June 2007)

7D = Weekly    30D = Monthly    1D = Daily  
 Conc. = Concentration (mg/l)    Qty.= Quantity (Kg/Day)

Reporting Period	Parameter	Limit Type	Limit	Reported Value
August 2006	Copper, Total Recoverable	30D Conc	26	47.
August 2006	Copper, Total Recoverable	1D Conc	44	47.
January 2007	Dissolved Oxygen	1D Conc	6.0	.9

#### Inspection Findings

1. If a laboratory result for a particular parameter is below the lab's method detection limit, operations staff should report "AA" in SWIMware and list the method detection limit in the associated "notes" section. Currently, WWTW staff is reporting the method detection level as a reportable value. Mr. Church stated that he would make the appropriate changes in procedure.
2. After performing a waste load allocation (in preparation of the upcoming NPDES permit renewal), Ohio EPA has determined that the Village should be testing for total recoverable copper, lead and cadmium at a lower detection levels. The following condition will be a part of the next NPDES permit:

*The permittee shall use analytical procedures approved under 40 CFR 136 with MDLs (method detection levels) less than or equal to those listed below to comply with the monitoring requirements for the following parameters:*

	<i>MDL (ug/l)</i>
<i>Cadmium</i>	<i>2.0 ug/l</i>
<i>Copper</i>	<i>8.5</i>
<i>Lead</i>	<i>9.5</i>



During the inspection, operations staff contacted the contract laboratory to make arrangements for testing these metals at a lower level (by using a different test method).

3. During the course of a month, local septic haulers dispose of approximately 40,000-50,000 gallons of septage at the Jamestown WWTW for treatment and disposal.
4. On average, approximately 120,000 gallons/day of sewage is pumped from the Shawnee Hills community to the Jamestown WWTW. As of now, Shawnee Hills is made up of around 950 homes. The sewage collection system (grinder pumps and small diameter force mains) is owned and operator by Greene County Sewer District.

All of the grinder pumps from Shawnee Hills were designed to convey sewage to a main pump station, which then pumped sewage to the Jamestown WWTW. Because of problems with the main pump station, Greene County has taken it off-line and all the sewage is now transported to the Jamestown WWTW from the power of the grinder pumps only.

It appears that during wet weather periods, influent flows from the Shawnee Hills area can be in excess of 400,000 gallons/day. This is very unusual from a grinder pump/force main collection system, where surface water and groundwater infiltration should be virtually nonexistent.

#### Items Noted During the Inspection

- One of the clarifiers was down for the summer (low flow conditions). The sludge blanket in the other clarifier was approximately 4-6 inches.
- One of the aerobic digesters was off-line. During the warm weather months, operations staff do not need the additional storage because the sludge contractor is able to haul and land apply sludge on the approved farm fields.

Staff had covered the diffusers in the off-line aerobic digester with black garbage bags to protect them from ultraviolet light.

- The mixed liquor in the three-channel oxidation ditch was chocolate brown in color and did not have an objectionable odor. This facility has been able to adequately remove phosphorus through biological means without the need of chemical addition.

In order to maintain a low dissolved oxygen environment in the "anoxic" third channel of the oxidation ditch, which is needed for phosphorus removal, the operations staff made alterations to the disc aerator so the appropriate amount of mixing could be achieved without adding excessive oxygen.

- The tubing used to pull WWTW effluent into the composite sampler was full of algae/mold. **This tubing should be changed without delay.**
- The effluent from the WWTW effluent was clear and the receiving stream did not appear to contain biosolids. *Even though the WWTW is fairly new, the overall condition of this facility is excellent. Operations staff*



*appears determined to care for the investment the Village has made in its wastewater infrastructure.*

### **Items for Correction**

#### **Daily Operations/Maintenance Log**

New water and wastewater operator rules became effective in December of 2006. Part of these requirements is for the establishment and continuation of an operation/maintenance daily log. Ohio Administrative Code 3745-7-09 states the following:

*(A) The owner and operator of record of a public water system, treatment works or sewerage system shall maintain or cause to be maintained operation and maintenance records for each public water system, water treatment plant within a public water system, treatment work, or wastewater treatment facility within a treatment works. Some of the formats in which the records may be maintained include, but are not limited to, hard bound books with consecutive page numbering, time cards, separate operation and maintenance records, or well organized computer logs.*

*1) The records shall be housed and maintained in such a manner as to be protected from weather damage and guarantee the authenticity and accuracy of the records contained within.*

*(2) The records shall be accessible onsite for twenty-four hour inspection by agency or emergency response personnel.*

*(3) At a minimum, the following information shall be recorded:*

*(a) Identification of the public water system, sewerage system, or treatment works;*

*(b) Date and times of arrival and departure for the operator of record and any other operator required by this chapter;*

*(c) Specific operation and maintenance activities that affect or have the potential to affect the quality or quantity of sewage or water conveyed, effluent or water produced;*

*(d) Results of tests performed and samples taken, unless documented on a laboratory sheet;*

*(e) Performance of preventative maintenance and repairs or requests for repair of the equipment that affect or have the potential to affect the quality or quantity of sewage or water conveyed, effluent or water produced; and*

*(f) Identification of the persons making entries.*

*(4) The records shall be kept up to date, contain a minimum of the previous three months of data at all times, and be maintained for at least three years.*

*(B) A certified operator shall:*



*(1) Perform their duties in a responsible and professional manner consistent with standard operating procedures and best management practices;*

*(2) Operate and maintain public water systems, sewerage systems, treatment works, and appurtenances so as not to endanger the health or safety of persons working in or around the facility, the public at large, or the environment due to negligence or incompetence; and*

*(3) Report all instances of noncompliance with applicable regulations to the operator of record or facility supervisor.*

*(C) The duties of an operator of record shall include, but not be limited to, those outlined in paragraphs (B)(1) to (B)(3) of this rule and the following additional duties and responsibilities:*

*(1) Responsible and effective on site management and supervision of the technical operation of the public water system, treatment works, or sewerage system;*

*(2) Immediately notifying the permittee or owner of a public water system, sewerage system, or treatment works, and ensuring the agency and, if applicable, the local regulatory agency, is notified of items that require notification in accordance with sections 6109. or 6111. of the Revised Code, the rules adopted there under, or the facility's NPDES permit; and*

*(D) In the event that there are issues related to paragraphs (A) to (C) of this rule that are within the area of responsibility of, but beyond an operator of record or a certified operator's ability to address, it shall be the operator's responsibility to document any efforts to rectify the problem.*

**Jamestown WWTW staff must meet the requirements of this rule as soon as possible, but no later than September 1, 2007.**

### **Sanitary Sewer Overflow Enforcement Action**

Sanitary sewer overflows (SSOs) have been constructed in the past to address basement flooding/capacity issues within the Village of Jamestown's sewage collection system. During the inspection, Mr. Church showed Mr. Jackson the location of three known SSOs; they are as follows

- a. Manhole at 41 N. Limestone Street (north side of Caesar Creek bridge) – this manhole has an overflow pipe within the manhole that conveys sewage to Caesar Creek during undefined wet weather periods. Creek intrusion into the collection system is also possible during high flow events.
- b. Manhole at 39 N. Limestone Street (south side of Caesar Creek bridge) – this manhole also has an overflow pipe within the manhole that conveys sewage to Caesar Creek during undefined wet weather periods. Creek



intrusion into the collection system is also possible during high flow events.

- c. Manhole at the intersection of N. Limestone Street and South Charlestown Road – this manhole will overflow onto the road during undefined wet weather periods.

\*During the inspection, Mr. Church also showed Mr. Jackson the location of a possible cross-connection where a catch basin appears to be tied into a sanitary sewer (catch basin is located between 22 & 24 N. Limestone Street). Mr. Church had recently discovered this location but had not yet dye-tested to confirm the cross-connection.

**To date, individual SSO events have not been reported to Ohio EPA. Operations staff must perform inspections of the known SSO locations during/after precipitation events (chalk telltale or block telltale methods may be utilized). Individual overflow events must be recorded in a monthly log and kept on-site. Each overflow event must also be reported to Ohio EPAs Spill Hotline (1-800-282-9378).**

Sanitary sewer overflows are a violation of Ohio Revised Code (ORC)6111.04(A)(1), which states, "No person shall cause pollution or place or cause to be placed any sewage, sludge, sludge materials, industrial waste, or other wastes in a location where they cause pollution of any waters of the state. For this reason, the "Collection System" portion of the report was given a rating of "Unsatisfactory".

**The Village shall hire an engineering firm (no later than September 30, 2007) to prepare a "Plan of Action" for elimination of all SSOs in the Village's sewage collection system. The "Plan of Action" shall be submitted to the Ohio EPA Southwest District Office no later than June 30, 2008 and shall include (but not be limited to) the following:**

1. Define the conditions when the SSOs occur. This would include results from flow monitoring at strategic points in the sanitary sewer system and the simultaneous compilation of local rain gauge data, manhole/sewer invert elevations and sewer sizes. All of this data could then be used in a collection system model.  
\*Ohio EPA is aware the Village has some recent reports/data concerning the Village's sewage collection system. The Village's consultant could utilize this data if it is pertinent to the area of study.
2. Alternatives for eliminating all of the SSOs. Examples would be sewer interceptor upsizing projects, sewer interceptor relocation projects, pump station and force main improvements, manhole rehab or replacement, sewer relining or replacement. All of the alternatives must be accompanied by cost effectiveness evaluations.



3. Selected preferred alternatives to implement for each sanitary sewer overflow.
4. Proposed schedule for implementing the preferred alternatives. This schedule shall include (but not limited to) the following: acquire funding, submittal for regulatory review (if required), advertise bids, award bid, begin construction, end construction, final elimination of sanitary sewer overflow.  
**Once a final schedule for eliminating the sanitary sewers is agreed upon, it will be inserted into an administrative enforcement action.**
5. Establish/update a map of the entire sewage collection system. This map must show the following:
  - a. North arrow
  - b. All streets, residences and any notable landmarks within the Village's corporation limits.
  - c. All sanitary sewers with associated sewer sizes and direction of sewage flow.
  - d. All sanitary manhole locations
  - e. Location of WWTW

