



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

Re: Sandusky County  
Village of Helena  
Sewerage

November 29, 2012

Mayor and Council  
Village of Helena  
504 Church Street  
P.O. Box 85  
Helena, Ohio 43435

Dear Mayor and Council:

On August 9, 2012, an inspection was made of the wastewater treatment facility that serves the Village of Helena. Present for the inspection were The Honorable Paul Turnow Jr., Mayor, Don Yodder, Leland Reimer and Michael Foreman from the Helena Board of Public Affairs, Certified Operators Derrick Chennault and Mike Logsdon from Eastwood Environmental, Inc., and Tom Stalter, Poggemeyer Design Group. Also present were Samih Al-Jamal and Joe Jellick, Ohio EPA-DEFA, along with Alex Smaili and me, Ohio EPA, NWDO, DSW.

The purpose of the inspection was to evaluate compliance with the terms and conditions of your National Pollutant Discharge Elimination System (NPDES) permit and to evaluate the operation and maintenance of the plant. The following items and observations were noted during the inspection:

1. It was indicated that the equalization tank flow was adjusted to even out the flow over a 24 hour period.
2. The tanks (aeration and clarifiers) are constructed to operate as two parallel systems.
3. Sludge bulking resulting in solids carry over was observed in both the north and south clarifier effluent weirs.
4. The two (center) filters were in use at the time of the inspection. It was indicated that as originally constructed, the sand filter lift station pumps were set up as alternating pumps, which dosed alternate beds (two beds always in use). This was recently changed to a "lead" pump to keep the dosing to one bed at a time.
5. Ultraviolet (UV) disinfection was in use.

6. The flow meter to measure final effluent discharge is located after disinfection. The flow meter needs to be calibrated as per manufacturers' recommendations.
7. The generator needs to be exercised under load to verify that it will support operating conditions.
8. It was noted that all sewer connections have been made with the exception of two homes. The connection of these two homes is currently being pursued by the Village.
9. The NPDES permit Part II, Item "O" requires that a permanent marker be placed on the stream bank at the outfall. The marker was not present at the time of inspection, which is a violation of the permit. Please contact this office regarding completion of placement of this marker.
10. It was noted that an operator log book is being maintained at the Helena Wastewater Treatment Plant (WWTP). Operator log requirements are included below.
11. As of August 2012, Eastwood Environmental Inc. has been contracted for technical service and certified operator(s).
12. Pictures taken at the time of the inspection are enclosed.

#### Electronic Discharge Monitoring Reports (e-DMRs) – NOV

The WWTP construction was completed in October 2010. There was no discharge data submitted to e-DMR from October 2010 through June 2011, as it was indicated that there was no reportable flow discharging through disinfection and the effluent flow meter. The e-DMR records were updated in August 2012 to report "*No discharge due to effluent leaching under filters*" for the sampling period from October 2010 thru June 2011.

Our records indicate that the contractor was notified May 2011 of the discharge problems and that the contractor returned in June 2011 to excavate the sand filters and install the liner. After completion of the sand filter liner, it was noted that flow to the UV chamber and flow meter were as intended.

A review of your monthly DMRs has also been conducted. A list of permit violations (July 2011 through October 2012) is enclosed.

#### Operator Log Requirements

Required record keeping and documentation at the facility must be implemented immediately. A log book must be developed to keep an up to date record for wastewater system operations and maintenance, which contains at a minimum, the following information:

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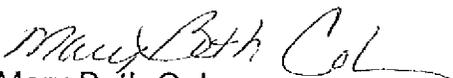
- Identification of the sewerage system, or treatment works;
- date and times of arrival and departure for the operator of record;
- specific operation and maintenance activities that affect or have the potential to affect the quality or quantity of sewage received and/or effluent produced;
- results of tests performed and samples taken, unless documented on a laboratory bench sheet;
- 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 conveyed, effluent produced;
- and identification of the persons making entries.

The records must be kept up to date, contain a minimum of three months' data at all times, and be maintained on site for at least three years.

Please provide a response to the above noted violations (outfall marker and effluent violations) as soon as possible but no later than December 31, 2012.

If there are any questions, please advise.

Yours truly,

  
Mary Beth Cohen  
Division of Surface Water

/jlm

Enclosures

pc: Steve Shiets, Sandusky County Sanitary Engineer  
Eastwood Environmental, Inc.  
Sandusky County Health Department

ec: Alauddin A. Alauddin, Ohio EPA-DEFA  
Tracking



State of  
Ohio Environmental Protection Agency  
Northwest District Office

### NPDES Compliance Inspection Report

Section A: National Data System Coding					
Permit #	NPDES#	Month/Day/Year	Inspection Type	Inspector	Facility Type
2PA00097	OH0139050	08/09/2012	C	S	1

Section B: Facility Data		
Name and Location of Facility Inspected	Entry Time	Permit Effective Date
Village of Helena Helena, OH 43435	10:30 am	11/01/2008
	Exit Time	Permit Expiration Date
	1:00 pm	10/31/2013
Name(s) and Title(s) of On-Site Representatives	Phone Number(s)	
Paul Turnow Jr., Mayor Don Yodder, Leland Reimer and Michael Foreman, Helena Board of Public Affairs	419-307-1077	
Name, Address and Title of Responsible Official	Phone Number	
Mayor and Council Village of Helena P.O. Box 85 504 Church St Helena, OH 43435		

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

Section D: Summary of Findings (Attach additional sheets if necessary)	
<p><i>National Pollutant Discharge Elimination System (NPDES) permit Part II, item "O.", requires that a permanent marker be placed on the stream bank at the outfall.</i></p> <p><i>Sludge bulking resulting in solids carry over was observed in the clarifier effluent weirs</i></p>	
Inspector	Reviewer
 Mary Beth Cohen Division of Surface Water Northwest District Office	 Thomas Poffenberger, P.E. Water Quality Engineer II/Unit Supervisor Division of Surface Water Northwest District Office
Date 11/26/12	Date 11/26/12

Helena WWTP  
2PA00097 (001) Effluent Violations  
July 2011 thru October 2012

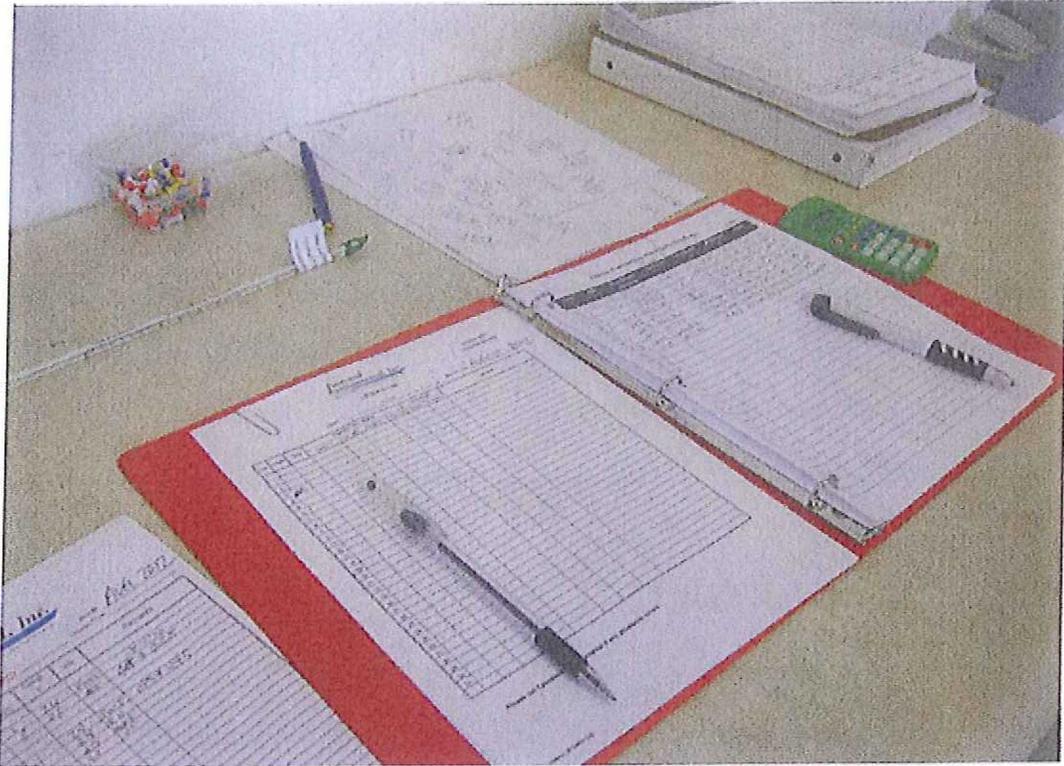
Reporting Period	Reporting Code	Parameter	Limit Type	Limit	Reported Value	Violation Date
November 2011	00530	Total Suspended Solids	30D Conc	12	16.125	11/1/2011
November 2011	00530	Total Suspended Solids	7D Conc	18	56.	11/15/2011
July 2012	00530	Total Suspended Solids	7D Conc	18	18.4	7/8/2012
July 2012	31616	Fecal Coliform			AK	7/20/2012
August 2012	31616	Fecal Coliform	30D Conc	1000	2979.93	8/1/2012
August 2012	31616	Fecal Coliform	1D Conc	2000	7400.	8/20/2012
September 2012	00610	Nitrogen, Ammonia (NH3	30D Conc	1.0	4.36667	9/1/2012
September 2012	00610	Nitrogen, Ammonia (NH3	7D Conc	1.5	4.6	9/1/2012
September 2012	00610	Nitrogen, Ammonia (NH3	30D Qty	0.152	.16036	9/1/2012
September 2012	00610	Nitrogen, Ammonia (NH3	7D Conc	1.5	8.5	9/22/2012
September 2012	00610	Nitrogen, Ammonia (NH3	7D Qty	0.228	.28955	9/22/2012
September 2012	31616	Fecal Coliform			AK	9/6/2012
September 2012	31616	Fecal Coliform			AK	9/27/2012
October 2012	00610	Nitrogen, Ammonia (NH3	30D Conc	1.0	1.66667	10/1/2012
October 2012	00610	Nitrogen, Ammonia (NH3	7D Conc	1.5	4.9	10/1/2012
October 2012	31616	Fecal Coliform	30D Conc	1000	1519.86	10/1/2012
October 2012	31616	Fecal Coliform	1D Conc	2000	4200.	10/4/2012

Wastewater Treatment Plant (WWTP)





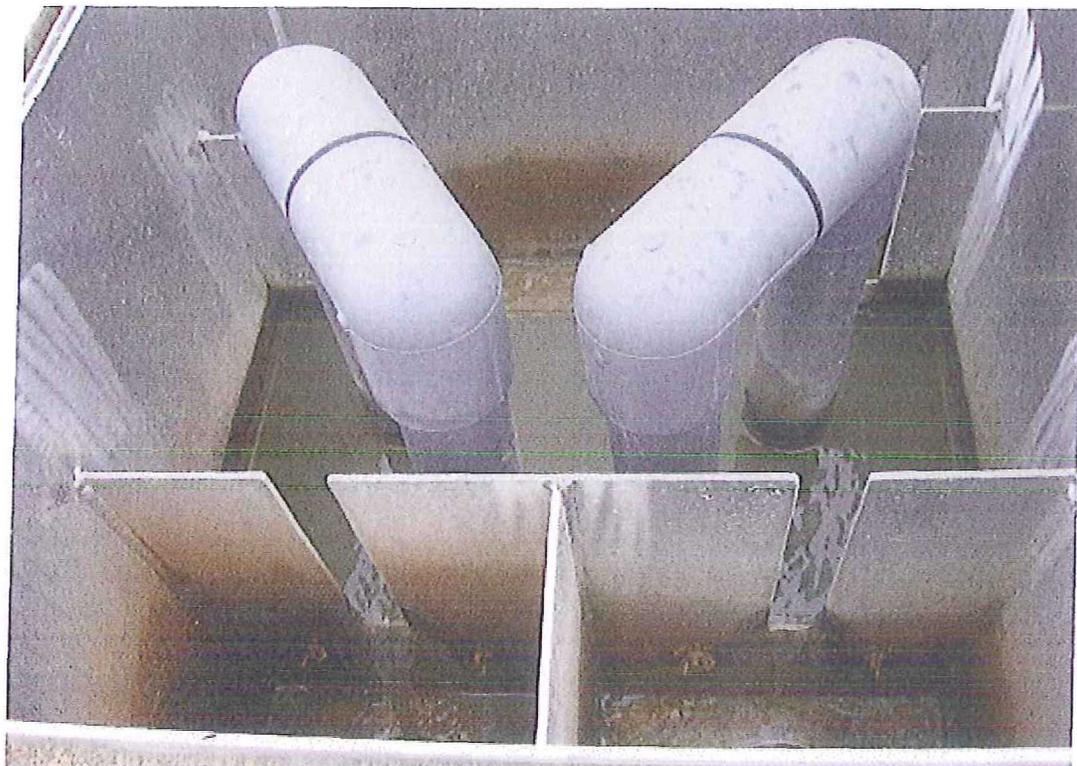
Record book - daily flow



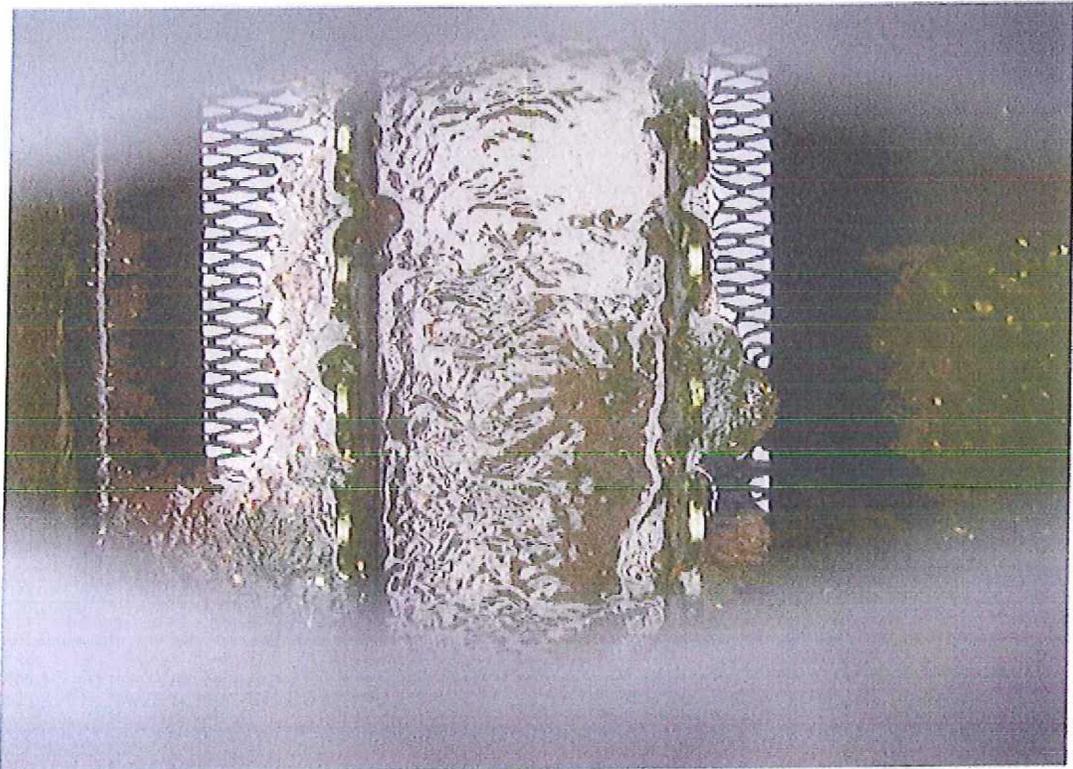
**Helena Wastewater Plant Daily Readings**

Date	NO.	Flow Meter Reading	Out Flow	Lift Station 1	Lift Station 2	Intake
8-7-12	243	571605	11,639	551.10 98	532.00 77	10,959
8-8	243	527993	11,970	551.57 97	538.38 98	11,450
8-9	"	539977	11,970	552.47 50	539.22 50	11,000
8-9	243	557284	14,811	553.36 99	540.19 96	10,450
8-5	243	571115	10,831	557.20 94	541.20 96	9,900
8-6	243	583361	12,246	555.06 46	541.43 93	9170
8-7	243	577776	14,615	556.23 67	542.37 54	12,210
8-8	243	610682	12,700	556.48 45	543.21 94	9790
8-9	243	535785	15,100	557.41 50	544.13 52	11,650
8-10						
8-11						
8-12						
8-13						

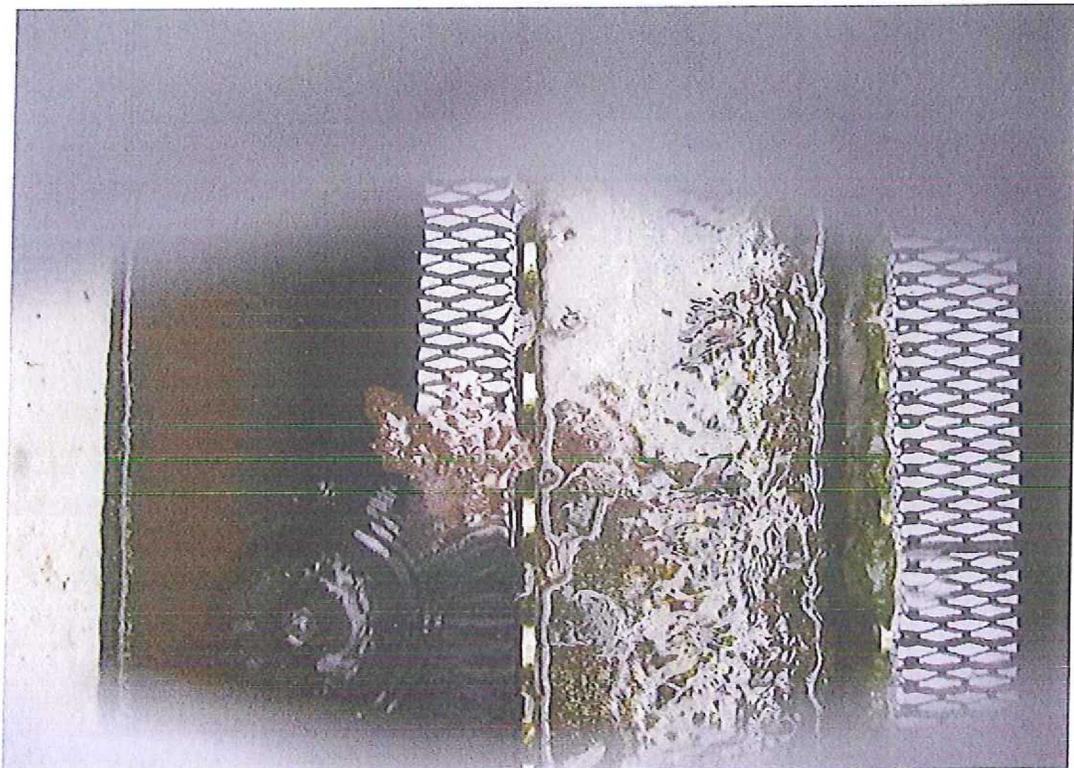
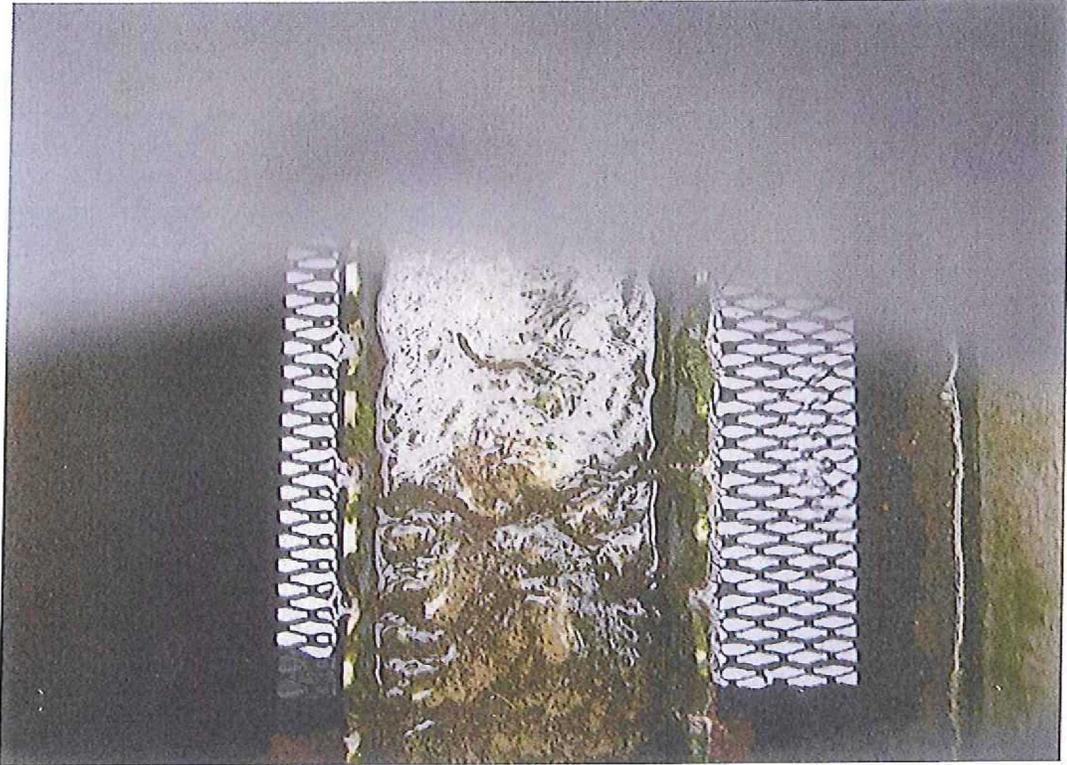
Flow Equalization (EQ)



North Clarifier – bulking solids / effluent weir



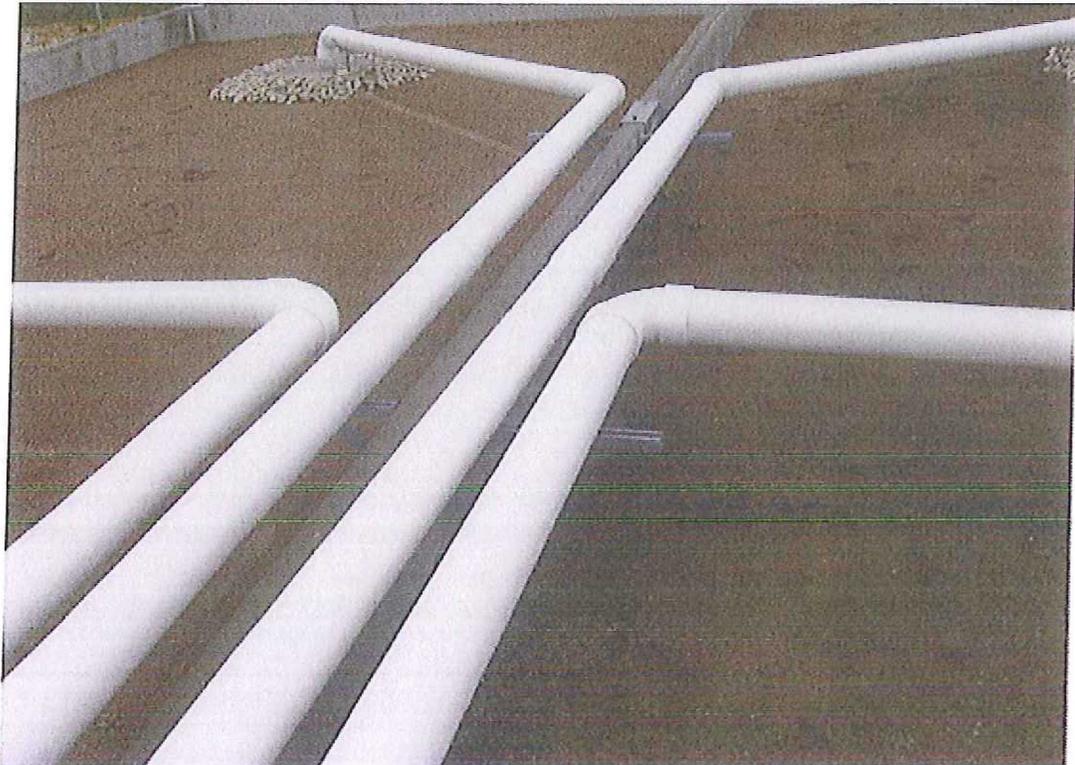
South Clarifier – bulking solids / effluent weir



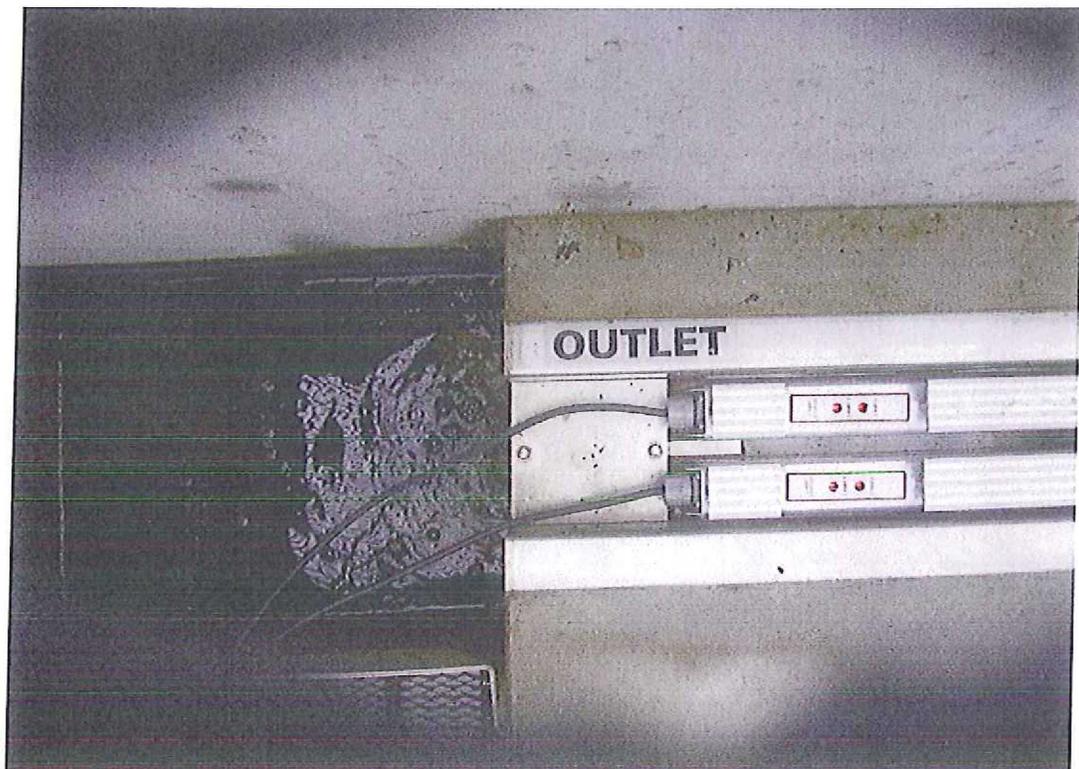
Surface Sand Filters



Surface Sand Filters



UV Disinfection



Post Aeration / Final Effluent Discharge

