

RICHLAND COUNTY
CLERK OF COURTS
FILED

IN THE COURT OF COMMON PLEAS
RICHLAND COUNTY, OHIO
03 MAY 16 AM 9:24

CLERK OF COURTS
STATE OF OHIO, *ex rel.*
BETTY D. MONTGOMERY
ATTORNEY GENERAL OF OHIO,

Case No. 94-548-H

Plaintiff,

JUDGE HENSON

vs.

AMENDED CONSENT ORDER

**BOARD OF COMMISSIONERS OF
RICHLAND COUNTY, OHIO et.al.**

Defendants.

Whereas, the Complaint in the above captioned matter having been filed, and Plaintiff, State of Ohio by its Attorney General (hereinafter "Plaintiff" or "State of Ohio") and Defendant, Board of Commissioners of Richland County (hereinafter " Defendant") having consented to the original Consent Order filed with this court on October 31, 1997 and this Amended Consent Order.

NOW THEREFORE, without trial or admission of any issue of law or of fact, and upon the consent of the parties to this Amended Consent Order, it is hereby **ORDERED**, **ADJUDGED** and **DECREED** that the Consent Order signed by this Court on October 31 1997 shall be amended as follows:

12.b. Plant Improvements: Richland County shall design and construct the improvements to the Eastview Wastewater Treatment Plant designated as Revised Supplement No. 2 dated July 2002 to its accepted general plan ("Revised Supplement 2") in accordance with the following schedule:

(i) Phase I Improvements. The "Phase I Improvements" shall consist of the improvements to the Eastview Wastewater Treatment Plant described in Revised Supplement 2 as flow equalization upstream of the proposed Orbal-Oxidation Ditch.

On or before March 15, 2001, Richland County shall submit a permit to install ("PTI") application for the Phase I Improvements.

Subject to paragraphs 21-24 and 30, within three months of Ohio EPA's issuance of Richland County's PTI for the Phase I Improvements, Richland County shall award the contract for construction of the Phase I Improvements.

Subject to paragraphs 21-24 and 30, within seventeen months of Ohio EPA's issuance of Richland County's PTI for the Phase I Improvements, Richland County shall complete construction of the Phase I Improvements.

Subject to paragraphs 21-24 and 30, within eighteen months of Ohio EPA's issuance of Richland County's PTI for the Phase I Improvements, Richland County shall commence and thereafter maintain operation of the Phase I Improvements.

(ii) Phase II Improvements. The "Phase II Improvements" shall consist of the remaining improvements to the Eastview Wastewater Treatment Plant described in Revised Supplement 2

Within fifteen months of the date Richland County awards the contract for construction of the Phase Improvements, Richland County shall submit a revised PTI application for the Phase II Improvements.

(B) Subject to paragraphs 21-24 and 30, within six months of Ohio EPA's issuance of Richland County's PTI for the Phase II Improvements, Richland County shall award the contract for construction of the Phase II Improvements.

Subject to paragraphs 21-24 and 30, within twenty-three months of Ohio EPA's issuance of Richland County's PTI for the Phase II Improvements, Richland County shall complete construction of the Phase II Improvements.

Subject to paragraphs 21-24 and 30, within twenty-five months of Ohio EPA's issuance of Richland County's PTI for the Phase II Improvements, Richland County shall commence and thereafter maintain operation of the Phase II Improvements.

(E) Subject to paragraphs 21-24 and 30, within twenty-six months of Ohio EPA's issuance of Richland County's PTI for the Phase II Improvements, Richland County shall attain and thereafter maintain full compliance with the final effluent limitations of NPDES permit no. 2PH00005*ED (and any renewals or modifications thereof).

20. Richland County shall submit to Ohio EPA a progress report within 14 days after reaching each of the deadlines set forth in paragraph 12 (b). All reports, notices, and other documents, reports, analyses, approvals, work plans, and correspondence demonstrating compliance with this Consent Order shall be sent by certified mail, return receipt requested (or the equivalent) to the Ohio EPA at the following address:

Ohio Environmental Protection Agency
Division of Surface Water
Northwest District Office
347 N. Dunbridge Rd.
Bowling Green, OH 43402
Attn. Elizabeth Wick

XI. RETENTION OF JURISDICTION

27 The Court will retain jurisdiction of this action for the purpose of administering or enforcing this Amended Consent Order and the original Consent Order filed October 1997. All terms and conditions not changed and/or amended by this Amended Consent Order shall remain in full force and effect.

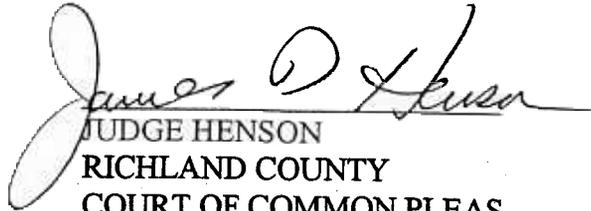
XV ENTRY OF AMENDED CONSENT ORDER AND FINAL JUDGMENT BY CLERK

32 The parties agree and acknowledge that final approval by the Plaintiff and Defendant, and entry of this Amended Consent Order is subject to the requirement of 40 C.R. § 23 (d)(3)(iii), which provides for notice of the lodging of this Amended Consent Order opportunity for public comment and the consideration of any public comment. Both the State and Defendant reserve the right to withdraw this Amended Consent Order based on comments received during the public comment period.

3. Upon the signing of this Amended Consent Order by the Court, the clerk hereby directed to enter upon the journal. Within three days of entering the judgment upon the journal, the clerk is hereby directed to serve upon all parties notice of the judgment and its date of entry upon the journal in the manner prescribed by Rule 5(B) of the Ohio Rules of Civil Procedure and note the service in the appearance docket.

IT IS SO ORDERED:

ENTERED THIS 15 DAY OF May, 2003.

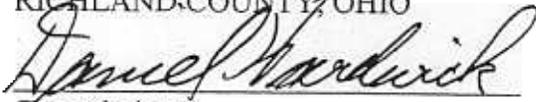

JUDGE HENSON
RICHLAND COUNTY
COURT OF COMMON PLEAS

APPROVED:

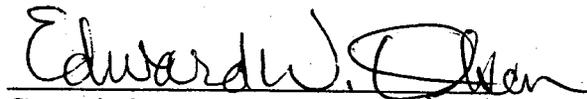
STATE OF OHIO,
ex rel. BETTY D. MONTGOMERY
ATTORNEY GENERAL OF OHIO

BOARD OF COMMISSIONERS OF
RICHLAND COUNTY, OHIO

BY:


Commissioner


TERI JO FINFROCK (0037903)
KRISTINA ERLEWINE (0071469)
Assistant Attorney General
Environmental Enforcement Section
30 East Broad Street, 25th Floor
Columbus, Ohio 43215-3428
(614) 466-2766
Attorneys for Plaintiff State of Ohio


Commissioner


Commissioner


THOMAS A. HAMILTON (0062444)
Jones, Day, Reavis & Pogue
North Point
901 Lakeside Avenue
Cleveland, Ohio 44114-1190
(216) 586-3939
Attorney for Defendant

94035

**REVISED SUPPLEMENT NO. 2
TO THE GENERAL PLAN
DATED AUGUST 1996
FOR THE
EASTVIEW WASTEWATER TREATMENT
PLANT IMPROVEMENTS
Richland County, Ohio
July, 2002**

**Prepared by
Richland Engineering Limited
29 North Park Street
Mansfield, Ohio 44902**

INTRODUCTION

The following modifications to the Eastview WWTP are hereby recommended. The proposed modifications will provide a treatment system which is designed to consistently meet the limits as established in Table 5-1 of the Antidegradation Rule. The modifications to the Eastview WWTP shall be constructed in two (2) phases as set forth below:

Phase I Improvements

Install a 500,000 gallon equalization tank upstream of the Orbal-Oxidation Ditch to equalize flows in excess of 2.81 MGD.

Phase II Improvements

1. Install a manual bar screen and comminutor with an auger to remove the grindings, followed by a centrifugal type grit removal system with air lift pumps prior to equalization.
2. Install an Orbal-Oxidation Ditch with an average daily design capacity of 0.90 MGD. The Orbal-Oxidation Ditch will have the provision to permit influent flows to be discharged into the outer cell or middle cell. This provision will permit the solids to remain in the outer cell during high flows.
3. Install variable speed pumps for the return of activated sludge with provisions to divert the RAS to the middle cell during high flows.
4. Install a noti-phone system to call the operator under the following circumstances which will permit the operator to go to the plant and make manual adjustments to the plant operation to insure compliance with the permit parameters.
 - A. Flows above 2.81 MGD.
 - B. Low intensity on UV disinfection lamps.
5. In conjunction with the above improvements Richland County shall replace approximately 5,294 lineal feet of 8 inch diameter gravity sewer within the Crestwood Hills Subdivision.

DESIGN

The improvements at the Eastview WWTP will be designed for the following flows.

EXISTING – EASTVIEW

Average daily dry weather flow	353,000 gallons/day
Average daily wet weather flow	447,500 gallons/day

EXISTING – IMPERIAL ESTATES

Average daily dry weather flow	96,700 gallons/day
Average daily wet weather flow	200,000 gallons/day

20 YEAR DESIGN

Average daily dry weather flow	688,000 gallons/day
Average daily wet weather flow	900,000 gallons/day

PEAK

Peak hourly flow	2,880,000 gallons/day
Equalized peak hourly flow	3,310,000 gallons/day
Peak hydraulic design	2,810,000 gallons/day

ORBAL-OXIDATION DITCH

Number of tanks	1
Number of cells	3
Side water depth	11'
Straight sidewall	30'
Cell width	
Outer cell	15'
Middle cell	15'
Inner cell	15'
Volume	
Outer cell	422,100 gallons
Middle cell	299,700 gallons
Inner cell	178,200 gallons

Above dimensions may vary to meet specific manufacture requirements during final design. However the total volume will remain at 900,000 gallons.

The normal operating scenario will be for the raw influent to enter the outer cell and progress through the middle and inner cell before discharging to the clarifiers.

During storm events (periods of high flow) the incoming flow will be discharged to the middle ring instead of the outer ring. This operating scheme will permit the solids to be retained in the outer cell.

After the storm event has passed, the influent flow will be returned to the outer cell.

CLARIFIERS

Number of tanks	2
Diameter of tanks	50'
Side water depth	12'
Surface area per tank	1735 sf
Total surface area	3470 sf
Weir length per tank	147.7'
Total weir length	295.4'

The information below indicates the surface overflow rate and peak solids loading rate at the 20 year design flows assuming a MLSS concentration of 3500 mg/l.

Peak hydraulic flow	2,810,000 gallons/day
MLSS	3500 mg/l
Peak solids loading	35 lb/day/sf
Surface overflow rate	809.8 gallons/day/sf
Weir overflow rate	9,513 gallons/ft

As the above numbers indicate, the clarifiers are designed to treat 2.81 MGD without exceeding the limits as established in the Recommended Standards for Wastewater Facilities, 1997 edition.

RETURN ACTIVATED SLUDGE

Variable speed pumps will be used to return the activated sludge (RAS) from the clarifiers to the Orbal-Oxidation Ditch. The variable speed pumps will have the ability to be controlled by a signal from the influent flow meter. The control signal will automatically increase or decrease the RAS rate based upon the incoming flow rate.

During high flow rates, in excess of 2.81 MGD, the RAS may be returned to the outer cell of the Orbal-Oxidation Ditch. This provision will help to prevent "wash out" of the clarifiers and will store the solids in the outer cell of the Orbal-Oxidation Ditch.

The RAS pumps will be designed to operate over a range of 0.18 mgd to 1.8 mgd. This is a range of 20 to 200 percent of the 20 year design flow of 900,000 gpd.

The RAS piping will also let the operator vary the return rate to the outer or middle cell. This will permit the operator to operate each cell at different mixed liquor concentrations.

AEROBIC SLUDGE DIGESTORS

The existing aeration/clarifier tanks will be converted to aerobic sludge digestors. Each of the 2 existing tanks has a volume of approximately 150,000 gallons for a total sludge capacity of 300,000 gallons.

The 20 year design population for Eastview and the Imperial Estates area is estimated at 5,471 people.

The design for the digestors is as follows.

Design population	5471 people
Volume per person	3 cf
Required volume	16,413 cf or 122,786 gallons

The aerobic digestors will be set up to operate in series or in parallel with the ability to decant or withdrawal from either tank. Method of operation will be at the discretion of the operator.

SUMMARY

In summary, the Orbal-Oxidation Ditch will be designed for an average daily flow of 900,000 gallons and will be designed to consistently meet the limits as established in table 5-1 of the antidegradation policy. The clarifiers will be designed to handle peak flows in excess of 2.81 million gallons without washing out. A 500,000 gallon equalization tank will be constructed ahead of the aeration tanks, following screening and grit removal. The equalization facilities will equalize a peak daily flow of 3.31 million gallons to 2.81 million gallons.

The return activated sludge will be designed for a return rate of 0.18 to 1.8 million gallons per day which is 20% to 200% of the average daily dry weather flow of 900,000 gallons.

The two existing aeration/clarifier tanks will be converted to aerobic sludge digestors with a capacity of approximately 300,000 gallons.