

IN THE COURT OF COMMON PLEAS
FAIRFIELD COUNTY, OHIO

FILED

STATE OF OHIO, ex rel.	:	CASE NO. 88-CVFB-0057
ANTHONY J. CELEBREZZE, JR.	:	
ATTORNEY GENERAL OF OHIO	:	JUDGE MARTIN
	:	
Plaintiff	:	
	:	
vs.	:	<u>CONSENT DECREE</u>
	:	
CITY OF LANCASTER, et al.	:	
	:	
Defendants.	:	

ROBERT W. LACEY
CLERK OF COURTS
FAIRFIELD COUNTY, OHIO

WHEREAS, the Complaint in the above-captioned matter having been filed herein, and the Plaintiff State of Ohio by its Attorney General Anthony J. Celebrezze, Jr. (hereinafter "Plaintiff") and Defendant City of Lancaster (hereinafter "Lancaster") having consented to the entry of this Decree,

NOW THEREFORE, without trial of any issue of fact or law, and upon consent of the Plaintiff and Lancaster only, it is hereby ORDERED, ADJUDGED AND DECREED as follows:

I. JURISDICTION AND VENUE

1. The Court has jurisdiction over the parties and the subject matter of this case. The Complaint states a claim upon which relief can be granted against Lancaster under Chapter 6111. of the Ohio Revised Code, and venue is proper in this Court.

II. PARTIES

2. The provisions of this Consent Decree shall apply and be binding upon Lancaster, its agents, officers, employees, assigns, successors in interest and any person acting in concert or privity with any of them. Lancaster shall provide a copy of this Consent Decree to each contractor it employs to perform work itemized herein, and each general contractor shall provide a copy of this Consent Decree to each of its subcontractors for such work.

III. SATISFACTION OF LAWSUIT

3. Plaintiff alleges in its Complaint that Lancaster has violated various provisions of R.C. Chapter 6111 and regulations promulgated pursuant thereto. Although Lancaster has denied and continues to deny any and all legal or equitable liability under any federal, state or local law in connection with this action, the parties have entered into this Consent Decree in good faith to avoid expensive and protracted litigation. Compliance with the terms of this Consent Decree shall constitute full satisfaction of any civil liability by Lancaster its agents, officers and employees for all claims arising under R.C. Chapter 6111 and regulations promulgated pursuant thereto as alleged in the Complaint including any violations thereof that have occurred up through and including the date of entry of this Consent Decree. Nothing in this Decree shall be construed to limit the authority of the State of Ohio to seek relief for claims or conditions not alleged in the

Complaint, including violations which occur after the filing of the Complaint.

4. Nothing in this Decree shall be construed to limit the State of Ohio to undertake any action to eliminate or mitigate conditions that may present an imminent endangerment to the public health, welfare or the environment or seek relief for claims or conditions relating to any contamination of waters of the State associated with the dedicated sludge site located adjacent to the Lancaster wastewater treatment facility. Lancaster reserves and does not waive any and all legal or equitable rights, remedies and defenses it may have to any such actions.

IV. PERMANENT INJUNCTION

5. Lancaster is hereby enjoined and ordered to comply with the terms and conditions of its NPDES permit, #4PD00001*ED, and any renewals, modifications and/or subsequent issuances thereof.

V. DEDICATED SLUDGE SITE

6. Lancaster shall cease applying or disposing of sludge at its dedicated sludge site located adjacent to the Lancaster wastewater treatment facility (hereinafter referred to as "the dedicated sludge site").

7. Lancaster shall perform a hydrogeologic investigation of its dedicated sludge site in accordance with the workplan attached as Exhibit A to this Consent Decree and the following schedule:

- (a) Lancaster shall commence the hydrogeologic investigation of its dedicated sludge site and implement the groundwater monitoring program outlined in the workplan attached as Exhibit A to this Consent Decree within 30 days of entry of this Decree;
- (b) Lancaster shall submit a hydrogeologic site investigation report within 267 days of the entry of this Decree which summarizes the results of the hydrogeologic investigation and the groundwater monitoring undertaken pursuant to paragraph (a) of this section.

8. Upon completion of the hydrogeologic investigation described in 7 above, Lancaster shall make recommendations for further investigation and/or corrective action if necessary and appropriate. Ohio EPA is not bound by Lancaster's recommendations.

VI. PRETREATMENT PROGRAM

9. Within ninety (90) days after entry of this Consent Decree, Lancaster shall submit to Ohio EPA a plan for the prompt and successively escalated enforcement responses that Lancaster will employ as a minimum for each type and pattern of violation of pretreatment standards and requirements by a user of the Lancaster wastewater treatment facility. The purpose of such a plan shall be to ensure that Lancaster takes prompt and successively escalated enforcement responses to ensure prompt compliance by users with applicable pretreatment standards and requirements. Nothing herein shall restrict the State from exercising enforcement authority over users of the Lancaster wastewater treatment facility.

10. Lancaster shall revise its pretreatment program as set forth in and in accordance with the following schedule:

- (a) By November 1, 1990, develop and submit a plan of study for the collection of data and information necessary to determine the sources of cadmium in the plant influent, the metal removal rate of the plant and options for revisions to the pretreatment standard or plant improvements.
- (b) By January 1, 1991, implement the data collection program outlined in (10)(a) above.
- (c) By May 1, 1991, submit a general plan for either plant improvements to meet the final effluent limitation or adjustments to the local pretreatment limit or a combination thereof.
- (d) By November 1, 1991, evaluate and submit to the Ohio EPA, Central Office, Pretreatment Unit in duplicate, technical justification for local industrial user limitations for cadmium to attain compliance with final table limits, along with a proposed pretreatment program modification.
- (e) By February 1, 1992, begin implementation of any remedial measures outlined in the general plan.
- (f) By February 1, 1992, incorporate revised local industrial user control limitations in all industrial user control documents.

VII. PLAN SUBMITTAL

11. All plans and documents required to be submitted under Section V of this Consent Decree shall be submitted in duplicate to the Unit Supervisor, Central District Office, Division of Water Pollution Control, Ohio Environmental Protection Agency, P.O. Box 2198, Columbus, Ohio 43266-2198. All plans and documents required to be submitted under Section VI of this Consent Decree shall be submitted to Supervisor,

Pretreatment Unit, Division of Water Pollution Control, Ohio Environmental Protection Agency, P.O. Box 1049, 1800 WaterMark Drive, Columbus, Ohio 43266-1049.

VIII. CIVIL PENALTY

12. Lancaster shall pay to the State of Ohio a civil penalty of \$50,000. The penalty shall be paid by delivering to counsel for Plaintiff a certified check for that amount, payable to the order of "Treasurer, State of Ohio," within forty-five (45) day from the date of this Consent Decree.

IX. STIPULATED PENALTIES

13. In the event that Lancaster fails to meet the requirements of either Section V or Section VI of this Consent Decree, Lancaster shall pay a stipulated penalty of \$250 for each day of violation. Lancaster shall be liable for an additional stipulated penalty of \$250 for each day of each violation that persists beyond 60 days for a total of \$500 per day for each day of each violation for days 61 through 120. In the event that failure to meet the requirements of Section V or Section VI of the Consent Decree continues beyond 120 days, Lancaster shall be liable for an additional stipulated penalty of \$250 for a total of \$750 per day for each day of each violation for days 121 through 180. In the event that failure to meet the requirements of Section V or Section VI of this Consent Decree continues beyond 180 days, Lancaster shall be liable for an additional stipulated penalty of \$250 for a total of \$1,000 per day for each day of each violation for days 181 and beyond.

14. In the event that Lancaster fails to meet any of the daily effluent limitations (interim or final) of its NPDES permit, Lancaster shall pay a stipulated penalty of \$250 for each day of each effluent limitation violation. Lancaster shall be liable for an additional stipulated penalty of \$250 per day of violation if the failure continues for more than 60 days, for a total stipulated penalty of \$500 per day for each day of each violation for days 61 through 120. In the event that failure to meet a daily effluent limitation of its NPDES permit (interim or final) continues beyond 120 days, Lancaster shall be liable for an additional stipulated penalty of \$250 for a total of \$750 per day for each day of each violation for days 121 through 180. In the event that failure to meet a daily effluent limitation of its NPDES permit (interim or final) continues beyond 180 days, Lancaster shall be liable for an additional stipulated penalty of \$250 for a total of \$1,000 per day for each day of each violation that continues beyond 180 days.

15. For the purpose of calculating stipulated penalties under the provisions of this paragraph of this Decree, each 7-day period of violation of a specific 7-day average effluent limitation shall be calculated as a single violation. In the event that Lancaster fails to meet any of its 7-day average effluent limitations of its NPDES permit, Lancaster shall be liable for payment of a stipulated penalty of \$1,000 for each 7-day period during which each failure occurs; if the failure to meet the same 7-day average effluent limitation continues for a second consecutive 7-day period, Lancaster shall be liable for payment of a stipulated penalty of \$1,500 for each second

consecutive 7-day period of each violation; if the failure to meet the same 7-day average effluent limitation continues for a third consecutive 7-day period, Lancaster shall be liable for a payment of a stipulated penalty of \$2,000 for each third consecutive 7-day period of each violation; if the failure to meet the same 7-day average effluent limitation continues for a fourth consecutive 7-day period, Lancaster shall be liable for payment of a stipulated penalty of \$2,500 for each fourth consecutive 7-day period of each violation and each subsequent consecutive 7-day period of each violation thereafter.

16. For the purpose of calculating stipulated penalties under the provisions of this paragraph of this Decree, each 30 day period of violation of a specific 30-day average effluent limitation shall be calculated as a single violation. In the event that Lancaster fails to meet any of the 30-day average interim or final effluent limitations, Lancaster shall be liable for payment of a stipulated penalty of \$1,500 for each 30-day period during which each failure occurs; if the failure to meet the same 30-day average effluent limitation continues for a second consecutive 30-day period, Lancaster shall be liable for the payment of a stipulated penalty of \$2,500 for each second consecutive 30-day period of each violation; if the failure to meet the same 30-day average effluent limitation continues for a third consecutive 30-day period, Lancaster shall be liable for the payment of a stipulated penalty of \$3,500 for each third consecutive 30-day period of each violation; if the failure to meet the same 30-day average effluent limitation continues for a

fourth consecutive 30-day period, Lancaster shall be liable for the payment of a stipulated penalty of \$4,500 for each fourth consecutive 30-day period of each violation and each subsequent consecutive 30-day period of each violation thereafter.

17. Any payment required to be made under the provisions of paragraphs 12, 13, 14 or 15 of this section shall be made by delivering to Plaintiff's counsel a certified check or checks for the appropriate amounts, within sixty (60) days from the date of the violation, made payable to "Treasurer, State of Ohio".

X. POTENTIAL FORCE MAJEURE

18. In any action to enforce any of the provisions of this Consent Decree, Lancaster may raise, at that time, the question of whether it is entitled to a defense that its conduct was caused by reasons or conditions beyond its control. While Plaintiff does not agree that such a defense exists, it is however, hereby agreed upon by the parties that it is premature at this time to raise and adjudicate the existence of such a defense and that the appropriate point at which to adjudicate the existence of such a defense is at the time that an enforcement action, if any, is commenced. Acceptance of this Consent Decree without a force majeure clause does not constitute a waiver, by Lancaster, of any rights or defenses it may have under applicable law.

XI. TERMINATION OF STIPULATED PENALTIES

19. The provisions of this Consent Decree set forth in Section IX requiring payment of stipulated penalties shall terminate if Lancaster has achieved and maintained compliance with the effluent limitations contained in its NPDES permit for a period of one (1) year and has paid all penalties required pursuant to this Consent Decree. For purposes of determining the initiation of the one year compliance period, the parties hereto agree that the one (1) year period may begin on July 1, 1990. Termination of these stipulated penalties shall only be effected by Order of the Court, upon application by any party and a demonstration that the two (2) conditions set forth in this paragraph have been met.

XII. RETENTION OF JURISDICTION

20. The Court will retain jurisdiction of this action for the purpose of making any Order or Decree which it deems appropriate to carry out this Consent Decree.

XIII. NON-WAIVER PROVISION

21. This Consent Decree does not limit or affect the rights of Lancaster, or the Plaintiff as against third parties, nor the rights of third parties. The parties reserve and do not waive any and all legal and equitable rights, remedies and defenses that may be available for violation or enforcement of this Consent Decree.

22. Lancaster does not waive any rights or remedies it has under federal or state laws, regulations or permit requirements, to seek modification to its NPDES permit or any laws or regulations, or to challenge any terms, conditions or effluent limits in any NPDES permit issued subsequent to the entry of this Consent Decree.

XIV. COSTS

23. Lancaster shall bear its own costs and pay a pro rata portion of the State's costs according to Lancaster's pro rata share of all Defendants costs incurred in this action as of the date of entry of this Consent Decree.

JUDGE MARTIN
FAIRFIELD COUNTY COURT OF
COMMON PLEAS

APPROVED:

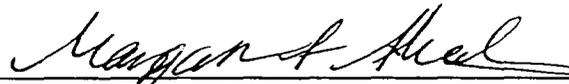
JOHN HUDDLE, ESQ.
Law Director
City of Lancaster, Ohio



JAMES F. ALLEN
KAREN A. WINTERS
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155 East Broad Street
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Counsel for Defendant
City of Lancaster

ANTHONY J. CELEBREZZE, JR.
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JAMES O. PAYNE, JR.
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(614) 466-2766

Counsel for Plaintiff State
of Ohio

**WORK PLAN
HYDROGEOLOGIC INVESTIGATION
DEDICATED SLUDGE SITE
LANCASTER, OHIO
BY
BURGESS & NIPLE, LIMITED
JUNE 1990**

We have prepared the following Work Plan to provide a Hydrogeologic Investigation of the Wastewater Treatment Plant's (WWTP) dedicated sludge site located in Lancaster, Ohio.

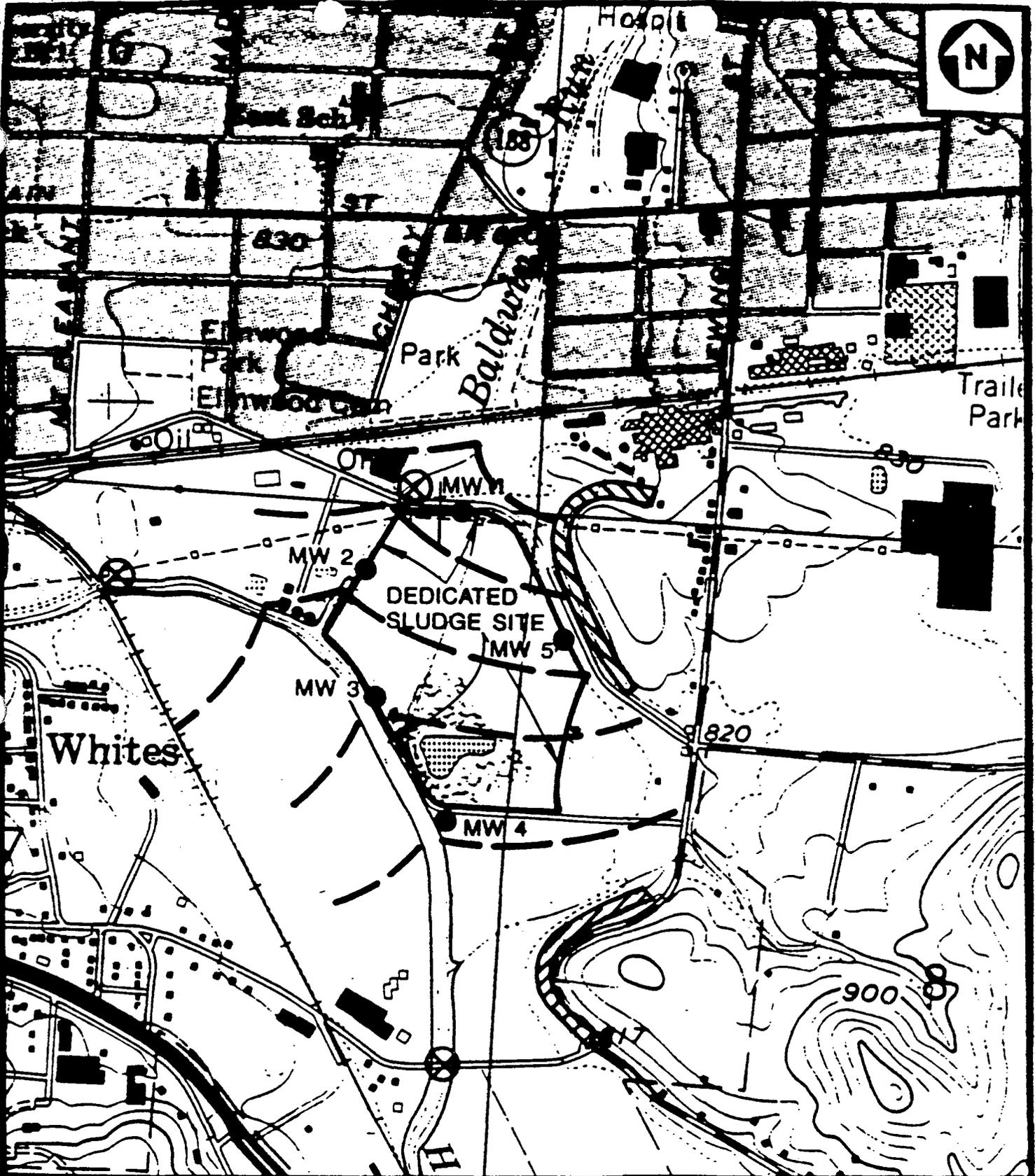
Specifically, Burgess & Niple, Limited (B&N) will perform the following.

Preliminary Literature Review

1. Well logs from the Ohio Department of Natural Resources (ODNR), Groundwater Division in Columbus, Ohio have been reviewed in order to determine the general hydrogeologic setting of the site. Published reports, files at the Ohio Environmental Protection Agency (Ohio EPA) Central District Office, and other available data will also be evaluated to determine the hydrogeologic conditions and the potential for off-site contaminant sources to affect water quality within the study area. Additional information which may be relevant includes topographic maps, aerial photographs, soil boring logs, and property maps. An historical assessment will be performed in order to provide information on potential contamination sources and disposal methods previously conducted at the dedicated sludge site.

Field Investigation

1. Five monitoring wells will be installed around the site so as to provide at least one upgradient and a minimum of three downgradient observation points as approximated from available information concerning groundwater flow. The approximate well locations are as shown on Figure 1. The well locations will be staked prior to



LEGEND

-  INFERRED POTENTIOMETRIC SURFACE
-  PROPOSED MONITOR WELL
-  STREAM LEVEL MEASUREMENT
-  INFERRED BEDROCK VALLEY WALL

LANCASTER, OHIO
DEDICATED SLUDGE SITE
FIGURE 1

PROPOSED MONITORING WELL LOCATIONS

BURGESS & NIPLE LIMITED
ENGINEERS & ARCHITECTS

SCALE
1" = 800'

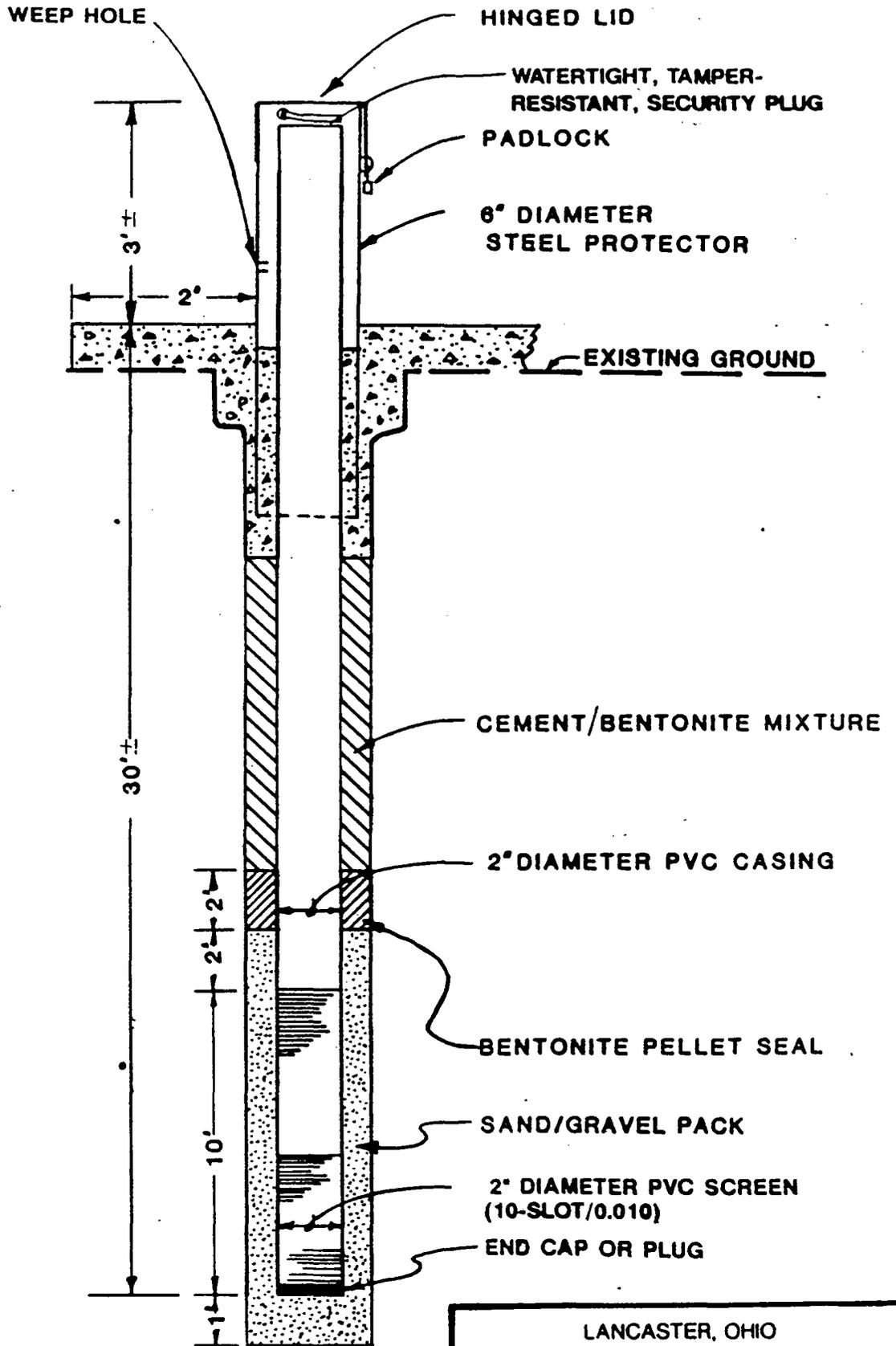
drilling activities for review by an Ohio EPA official. The Agency will be notified 2 weeks prior to monitoring well installation as well as each sampling event.

One or possibly two upgradient monitoring well(s) (MW 1 and potentially MW 5) are proposed as shown on Figure 1. The upgradient well or wells will provide an analysis of ambient groundwater quality flowing on site. MW 2, MW 3, and MW 4 are situated to intersect a potential contaminant plume emanating from the sludge disposal site and to assess the interconnection with the Hocking River and Baldwin Run.

If it is determined that an additional monitoring well located at the southeast edge of the site is necessary, then B&N will recommend to the City of Lancaster that this well be installed. The above determination and the possible need for additional monitoring wells will be based on B&N's review of the groundwater conditions during this hydrogeologic investigation.

The monitoring well borings will be drilled utilizing a 4.25-inch inside diameter (I.D.) hollow stem auger. Continuous soil samples will be collected throughout the boring depth by driving split-spoon samplers ahead of the hollow stem augers in accordance with ASTM D1586-67 (Standard Penetration Test). A photoionization unit (HNU or similar device) will be used to screen samples from the unsaturated zone in the field. Physical signs of contamination, that is, odors, discolorating, or unusual texture, will be recorded in the field. An undisturbed sample will be collected utilizing a thin walled sampler (Shelby tube) should the boring intercept a cohesive zone which may cause perched water table conditions.

Upon completion of each boring, 2-inch Schedule 40 polyvinyl chloride (PVC) casing and 10 feet of 10-slot PVC (0.010 inch) screen will be set in the borehole through the hollow stem auger. The augers will be withdrawn with the concurrent placement of the sand pack, bentonite pellets, and cement/bentonite slurry. The typical construction of each well is shown on Figure 2. To avoid the



LANCASTER, OHIO
DEDICATED SLUDGE SITE

FIGURE 2

TYPICAL WELL DESIGN

BURGESS & NIPLE, LTD.
ENGINEERS & ARCHITECTS NO SCALE

potential for cross contamination, drilling equipment will be steam cleaned between borings. A hinged casing protector will be placed in cement at each location and provided with a padlock for security. A watertight, tamper-resistant security plug will be installed flush with each monitoring well riser pipe.

Each well will be screened from approximately 2 feet above the top of the water table at the time of installation to 8 feet below the water table. This interval should intercept potentially floating constituents which might have been released from the dedicated sludge site.

Monitoring wells will be allowed to remain idle for a minimum of 2 days prior to development. The development will be conducted by removing water from the monitoring well. Development will be determined to be complete when the discharge from each well is free of visible turbidity, or a reasonable attempt has been made.

Decontamination fluids and development water will be collected and disposed of at the Lancaster WWTP or until such time as the analysis indicates that the water meets streamwater quality standards.

A slug test will be attempted without adding water to the monitoring wells at each of the new monitoring wells to estimate the in-situ hydraulic conductivity. Should the formation be unable to sustain an artificial head, estimates of permeability will be obtained from grain size distribution curves.

2. The elevation of a reference point at each well will be surveyed to within 0.01 feet based on a uniform datum. Water levels will be measured and recorded once every two weeks during the hydrogeologic investigation. Water level data will be collected over a time period not to exceed 12 hours during each water survey operation or by a continuous recorder. Additionally, two river levels will be taken on the Hocking River and one level on Baldwin Run to further delineate

groundwater flow each time groundwater levels are measured. Based on the water level data, potentiometric maps will be constructed for the highest and lowest set of water level data.

3. Two sets of groundwater samples will be collected from each of the monitoring wells and the river for water quality analyses as indicated in laboratory testing. The second sampling event shall be initiated approximately 90 days following the initial event. The sampling plan is provided as Attachment A.

Laboratory Analysis

1. Soil samples from the borings conducted during monitoring well installation will be classified by the on-site geologist (all samples), and samples from the unsaturated zone in which elevated levels of constituents were found will be further analyzed in the laboratory for appropriate parameters. In addition, one composited sample from the unsaturated zone of each borehole will be analyzed for the heavy metals as analyzed for the groundwater and surface water. Soil samples which show physical signs of contamination as previously described will also be analyzed for the same parameters.

Sieve analysis (an estimated three to five unconsolidated samples), and estimates of permeability will be determined based upon grain size distribution curves and slug tests, if applicable. Shelby tube samples will be tested so as to determine undisturbed permeability of cohesive soils encountered.

2. Groundwater and river samples will initially be analyzed for the following parameters of concern.
 - Temperature (field measured)
 - Conductivity (field measured)
 - pH (field measured)
 - Total Dissolved Solids (TDS)
 - Total Organic Carbon (TOC)
 - Methylene Blue Active Substances (MBAS)

- Chemical Oxygen Demand (COD)
- Volatile Organic Compounds (VOC)
- Semivolatile Organic Compounds
- Arsenic (As)
- Barium (Ba)
- Cadmium (Cd)
- Chloride (Cl)
- Chromium (Cr)
- Copper (Cu)
- Cyanide (HCN)
- Lead (Pb)
- Mercury (Hg)
- Nickel (Ni)
- Nitrogen (NH₃-N, TKN and Nitrate Nitrogen)
- Phosphorus
- Selenium (Se)
- Sulfate (SO₄)
- Zinc (Zn)

It should be noted that based on the water quality analyses, the deletion and/or addition of parameters may be appropriate. Any proposed changes to future water quality analysis will be addressed in the report.

Verification and reliability of laboratory data will be ensured by a thorough Quality Assurance/Quality Control (QA/QC) program. A summary of the QA/QC program has been attached (Attachment B).

Report

1. The hydrogeologic data collected through the field investigation and laboratory analysis of groundwater samples will be summarized. This investigation will determine the general site geology and hydrogeology and will give an indication of water quality. The report will include estimates of groundwater gradient, flow direction, and an evaluation of the impact of the disposal area on

the aquifer, Hocking River, and Baldwin Run. The report will be prepared for Ohio EPA review after completion of the second round of sampling.

A plan for a site assessment, to be completed at a later date, will be included in the report, if it is deemed appropriate. Specific recommendations for further action which may include additional fieldwork will also be included with this report. Based on such recommendations and on the results of this investigation, the Ohio EPA will make subsequent decisions regarding the necessity of an assessment of the rate and extent of potential contamination and the need for remediation actions based on the results of the assessment.

Work Schedule

<u>Item</u>	<u>Description</u>	<u>Working Days</u>	<u>Comments</u>
1.	Preliminary Review	30 days	Currently underway
2.	Secure Contract with Driller and Install Monitoring Wells	30 days	Dependent upon number, depth, and weather
3.	Develop Monitoring Wells	6 days	
4.	Well and Aquifer Stabilization	7 days	
5.	Sampling Event I	2 days	Dependent upon weather
6.	Laboratory Analyses	50 days	
7.	Interim Period	40 days*	
8.	Sampling Event II	2 days	Dependent upon weather
9.	Laboratory Analyses	50 days	
10.	Prepare Report	50 days	

*Sampling Event II will be initiated approximately 90 calendar days following Sampling Event I.

ATTACHMENT A
DEDICATED SLUDGE SITE
GROUNDWATER SAMPLING PLAN
LANCASTER, OHIO

The representativeness and QA/QC of groundwater samples will be ensured throughout the sampling efforts at the Dedicated Sludge Site. The field procedures for groundwater sampling and custody are as outlined below.

Groundwater Sampling

Groundwater sampling will be conducted following a water level recording and the removal of a minimum of three well volumes of water. Purging will be accomplished utilizing a small diameter submersible pump which has been decontaminated using a multiphase rinse before each well is evacuated to prevent cross contamination. Decontamination of the pump will consist of a distilled water rinse including acetone (5 percent in distilled water) and a distilled water rinse. The solutions will be circulated through the pump during the decontamination process. The discharge from the pump following a final rinse will be collected in order to provide a rinseate blank. This set of samples will be collected from the pump following the sampling of a downgradient monitoring well. Purged water and decontamination fluids will be collected and disposed of at the Lancaster WWTP or until such time as the analysis indicates that the water meets streamwater quality standards.

Following the purging of three volumes of water from a monitoring well, the pump discharge will be tested for pH, conductivity, and temperature. The values will be used as indicator parameters in order to determine when groundwater, representative of the aquifer, is being withdrawn from the well. Water samples will be collected when successive measurements of pH and conductivity stabilize within 10 percent of previous values.

Samples will be placed into appropriate clean containers. Samples for metals analysis will be filtered through a 45-micron filter membrane before placement in respective sample containers and acidified. All sample containers will be stored in coolers with ice and maintained at temperatures below 4 degrees Celsius (^o C.).

Chain-of-Custody

The sample collector at the site will be responsible for the care and custody of the water samples including a chain-of-custody record until the samples are transferred to the receiving laboratory or turned over to an assigned custodian. The samples will be kept in the possession of that individual or stored in a locked place. The chain-of-custody provides internal control as well as legal documentation of the sample possession.

The chain-of-custody records will be initiated once the samples have been collected. This record will be attached or accompany the samples until received at the laboratory. When transferring the samples, the transferee will sign and record the date and time on the chain-of-custody form. A copy of the forms will be retained at the facility. The first signature under Sample Transfer Information will be the collector and the last signature will be the laboratory representative.

**ATTACHMENT B
QUALITY ASSURANCE/QUALITY CONTROL
OF LABORATORY DATA**

Verification and reliability of laboratory data are ensured by a thorough and documented Quality Assurance/Quality Control (QA/QC) program.

There is often a need to confirm that data reported are accurate and truly representative of the chemical characteristics of the sample assayed. Data bias can arise from:

- **Heterogeneity of the Sample Matrix.** The relatively small portion of the total sample that is taken for analysis should be an accurate representation of the entire matrix to be characterized. Segregated and differentiated components of the entire sample must be divided finely enough and evenly mixed to ensure a truly accurate analysis of a small aliquot.

- **Chemical Interference in the Assay.** Any particular chemical specie being assayed will typically be a miniscule fraction of the total matrix. Analytical techniques must be able to discriminate a particular chemical/physical reaction from within the entire chemical matrix and to be free of other chemical reactions that are similar and/or would mask out the observation by color, opacity, temperature, precipitation, etc.

- **Artifacts of Analysis or Instrumental Error.** All data generated need to be documented regarding the proper functioning of the analytical instruments and purity of reagents.

Following are routine QA/QC procedures run to ensure accurate/repeatable data for common analyses and unique QA/QC techniques available for legal documentation and sample-specific for hazardous wastes and other particular samples requiring more extensive record keeping. Those procedures marked with an asterisk will be executed on the specific request of the person submitting the sample; analytical fees for these assays are in addition to basic data costs. No extra fees are assessed for those steps not noted with an asterisk.

- Analytical specimens are thoroughly mixed if solid, and shaken or stirred if a liquid or slurry. This ensures the removal of a homogenous, representative aliquot for analysis. It is suggested that enough "head space" be left in the sample container to allow adequate mixing and to permit sample removal without spillage or overflow when filled to the brim. Please note that a small number of tests do require a minimum of air contact and must be collected and transported accordingly.

- All reagents are compounded from ACS-certified pure chemicals. Stock solutions for several known standards are purchased from commercially certified supply houses. Working standards are made up daily for short-lived species, or at least monthly for the metals. Reagents and standards are all prepared on schedule, or more frequently than specified.

- Analyses are carried out according to techniques specified in Standard Methods for the Examination of Water and Wastewater (APHA-AWWA-WPCF), Methods for Chemical Analysis of Water and Wastes (U.S. Environmental Protection Agency), Methods of Analysis (AOAC), ASTM Standards (ASTM), and classical wet chemistry.

- Daily logs are maintained to document instrumental performance with regard to blank assays, accuracy of standard curves, and calibration performance.

- Metal analyses by atomic absorption are commenced only after the instrument has accurately assayed U.S. EPA certified knowns for each metal to be tested. That is, our instrument is first calibrated with the standard curve of working standards. Then, at least two assays are run on outside knowns supplied by the U.S. EPA. Analyses do not proceed unless satisfactory operation is demonstrated. This is done for each element, every time a given set of metals is assayed; daily logs are kept on file.

- Metal assays are routinely run in replicate with demonstration of no carryover. A blank of deionized water or reagent blank is run for a "zero" before and after both assays. This confirms that the instrument is generating reproducible data and residue contamination is not carrying over to subsequent samples. These data are recorded on individual sample work sheets.

- (*)Spike assays(*) are run to confirm the presence or absence of data bias in the sample matrix. Known additions of the chemical specie being assayed are added to the analytical solution. Analysis of this solution confirms the "percent recovery" of the added component. This demonstrates the first level accuracy of data generated, or the positive/negative bias of analysis due to chemical interference in the matrix. Double or triple spike additions in increasing concentrations can be used to justify any adjustment of raw data.

- (*)Replicate analyses(*) are run to demonstrate homogeneity of sampling and reproducibility of data generated. Multiple samples can be submitted for parallel analyses or a single sample can be subsampled. Extractions, digestions, or other preparatory and handling procedures are then carried out in parallel. Final data are compared for reproducibility. If requested, replicate analyses can be done on different days or in separate batches. However, sample aging must be accounted for in all sample pairings.

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RESOLUTION NO. 88-90

A RESOLUTION TO APPROVE A CONSENT DECREE IN THE CASE OF STATE EX REL. CELEBREZZE V. CITY OF LANCASTER, OHIO #88-CVFB-0057, FAIRFIELD COUNTY COMMON PLEAS COURT

BE IT RESOLVED by the Council of the City of Lancaster, State of Ohio

SECTION 1. That the Consent Decree in the case of State ex rel. Celebrezze v. City of Lancaster, Ohio Case #88-CVFB-0057, Fairfield County Common Pleas Court, which is now on file with the clerk of council, be and the same is hereby approved.

SECTION 2. That this resolution shall take effect and be in force from and after the earliest period allowed by law.

Passed: 6-25-90 after one reading. Vote: Yeas 8 Nays 0

Approved: June 25, 1990

James H. Wadley
President of Council

Attest: Madonna J. Adcock
Clerk

James H. Wadley
Mayor

Offered by: Franklin K...

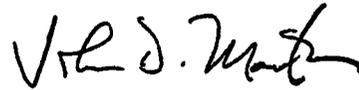
Seconded by: Michael Miller

Requested by Committee of the Whole

1. Lancaster has achieved and maintained compliance with the effluent limitations contained in its NPDES permit for a period of one (1) year and has paid all penalties required pursuant to the Consent Decree.

2. The provisions of the Consent Decree set forth in Section IX, Paragraphs 13-17 relating to stipulated penalties shall terminate upon entry of this Consent Order.

IT IS SO ORDERED.



DATE

HONORABLE JOHN D. MARTIN
In the Court of Common Pleas
Fairfield County, Ohio

THE UNDERSIGNED PARTIES enter into this Consent Order for Termination of Stipulated Penalties in the matter of State of Ohio ex rel. v. City of Lancaster, Case No. 88-CVFB-0057.

FOR THE STATE OF OHIO

Lee Fisher
Attorney General

7-22-94
DATE

By: James O. Payne, Jr.
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THE UNDERSIGNED PARTIES enter into this Consent Order for Termination of Stipulated Penalties in the matter of State of Ohio ex rel. v. City of Lancaster, Case No. 88-CVFB-0057.

FOR THE CITY OF LANCASTER

DATE 7/22/94

By: Margaret M. Stolar

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