MUNICIPALITY OF MONROEVILLE

ALLEGHENY COUNTY, PENNSYLVANIA

ORDINANCE NO. 2225

AN ORDINANCE OF THE MUNICIPALITY OF MONROEVILLE, ALLEGHENY COUNTY, PENNSYLVANIA, A HOME RULE COMMUNITY, APPROVING THE PROPOSED CORRECTIVE ACTION PLAN (CAP) OF THE MUNICIPALITY OF MONROEVILLE

BE IT ENACTED AND ORDAINED, by the authority of Council of the Municipality of Monroeville, Allegheny County, and is hereby ordained by the authority of the same, that the Manager of said Municipality be authorized and directed to sign the attached Proposed Corrective Action Plan (CAP) on behalf of the Municipality of Monroeville.

ATTEST:

Marshall W. Bond
Municipal Manager

MUNICIPALITY OF MONROEVILLE

James J. Lomeo
Mayor

ENTERED INTO LEGAL BOOK ON: May 24, 2002

PROPOSED CORRECTIVE ACTION PLAN (CAP)
OF
MUNICIPALITY OF MONROEVILLE

WHEREAS, a separate sanitary sewer overflow has been located on the Municipality's official sewer map; and

WHEREAS, the Municipality of Monroeville is desirous of correcting and ultimately eliminating said overflow.

NOW, THEREFORE, the Municipality of Monroeville, hereinafter referred to as the "Municipality", intending to be legally bound hereby submits to the Pa. Department of Environmental Protection and the Allegheny County Health Department the following CAP Plan:

PHASE I - ASSESSMENT

1. The Municipality shall employ the services of a professional engineer to oversee the completion of all Phase I Assessment tasks.

2. **Physical Survey.** By May 1, 2005, the Municipality shall complete a physical survey of the entire portion of its sanitary sewer system that directly or indirectly is tributary to the ALCOSAN Sewer System. The physical survey shall include, at a minimum, all manholes, sewer lines and other sewer appurtenances, including, but not limited to siphons, pump stations, and force mains. The survey shall identify, at a minimum, defects related to structural stability, accumulated sediment and debris deposits, evidence of present or prior surcharging or overflows, pump and force main restrictions, the location of which all SSO occur, and any other condition that compromises and/or diminishes the capacity of the sanitary sewer system. The survey shall also identify defects which allow the entrance of infiltration and inflow that compromise and/or diminish the capacity of the sanitary sewer system. An inspection shall be performed for all manholes, both interior and exterior, and of each sewer line connection into or out of each manhole. The inspection shall note all manholes which cannot be located, visually or with metal detectors, and areas where additional manholes need to be constructed.

   Sewer Line Cleaning and Internal Inspection. By May 1, 2005, the Municipality shall complete the cleaning of the entire portion of its sanitary sewer system that directly or indirectly is tributary to the ALCOSAN Sewer System. Concurrent with this cleaning, the Municipality shall internally inspect, by televising, that same portion of its sewer system. The Municipality shall record:

   1. all defects that may allow the entrance of infiltration and inflow to its sanitary sewers;

2. all structural defects;

3. all defects that compromise and/or diminish the carrying capacity of the sanitary sewer lines; and

4. all defects in siphons.

This record shall include audio/video documentation, with a written summary to include, but not be limited to the location of roots, defective joints, defective pipes, sewer line depressions, break-in lateral connections, grease accumulations, and sediment accumulations.

4. **Sewer System Mapping.** By Mary 1, 2005, the Municipality shall submit to the ACHD a newly updated comprehensive sewer map of the sanitary sewers within the entire portion of its sewer system directly or indirectly tributary to the ALCOSAN Sewer System. The Municipality may build upon the base sewer map that has been created by the 3 Rivers Wet Weather Demonstration Program, or a comparable base sewer map. This map shall be submitted in Environmental Systems Research Institute (ESRI)-compatible format, and shall indicate, at a minimum, the location of the sewer lines, the direction of the flow, the size of the sewer lines, the sewer line material, the locations where flows from other municipalities enter the sewer system, the location of manholes and the location of catch basins connected to the sewer system (identified by a comprehensive numbering or lettering system), the location of pump stations, force mains, and siphons, the location from which all SSO occur, and the location of streams or drainage ways tributary to the sewers. These maps shall be created using Geographic Information System (hereinafter "GIS") mapping and verified with Global Positioning Satellite (hereinafter "GPS") ground monitoring. The GIS mapping shall be compatible with the GIS protocol utilized by the ACHD, including the use of the specified attribute tables, data dictionary, etc. The maps must include, at a minimum, street names, municipal boundaries, streams, points of interconnection with other municipal or private sewer systems and any known points of sewer overflow including SSOs manhole overflows, and basement flooding. The investigations conducted in preparing these maps shall include the location of any buried or lost manholes through metal detection or excavation, the identification of all unsewered residential areas within the sewer system and the associated estimated population of these unsewered residential areas.

5. **Sewer System Dye Testing and Enforcement**

1. By May 1, 2005, the Municipality shall complete, at a minimum, the dye testing of all roof leaders (except those that can be visually verified as not connected to the sanitary sewer), driveway drains, springs, catch basins and any other sources of extraneous surface water or groundwater

that may enter the entire portion of its sanitary sewer system that may be directly or indirectly tributary to the ALCOSAN Sewer System. This work shall be performed simultaneously with the physical survey, sewer line cleaning and the internal inspection requirements contained herein.

2. By November 1, 2002, the Municipality shall institute and enforce an ordinance or regulation prohibiting connections of storm water to the sanitary sewer system. By August 1, 2005, the Municipality shall complete corrective actions to ensure the removal of sources of extraneous surface water and/or groundwater from that entire portion of its sanitary sewer system that may be directly or indirectly tributary to the ALCOSAN Sewer System. These corrective actions shall include the diligent prosecution of enforcement actions against private property owners to remove illegal connections.

3. By November 1, 2002, the Municipality shall institute and enforce a sewer use ordinance or regulation which requires at the time of all property sales within the Municipality, an inspection and test of building sewer laterals to identify illegal connections and defects. The ordinance shall require the removal of the illegal connections and the repair of identified defects prior to the sale of the property.

6. **Sewer System Deficiency Correction.** By August 1, 2005, the Municipality shall complete the repair of all manholes that accept surface water inflow and all defective siphons, pump stations, and force mains identified during the Physical Survey completed pursuant to Paragraph 2; replace all crushed and sagging sewer lines (and any other condition that is likely to cause a public health hazard or environmental damage) identified during sewer line cleaning and internal inspection completed pursuant to Paragraph 3; and remove any and all catch basins or streams connected to the sewer lines as identified in Paragraphs 2 through 5.

7. **Hydraulic Capacity Evaluation.** By May 1, 2005, the Municipality shall complete an evaluation that, at a minimum, includes: the capacity of each sewer line, siphon, force main, and pump station; its tributary population; its expected dry weather flow; and its design peak flow. This evaluation shall be performed simultaneously with the physical survey, sewer line cleaning, internal inspection and sewer system dye testing requirements contained herein. This data shall be consistent with the GIS protocol utilized by the ACHD. The Municipality shall submit to ALCOSAN the hydraulic capacity information on an annual basis i.e., by August 1, 2003, August 1, 2004, and August 1, 2005.

8. The Municipality shall perform the actions required in Paragraphs 2 through 7 in at least one third of its sanitary sewer system each twelve (12) months i.e., one-third from May 2002 to April 2003, one-third from May 2003 to April

2004, and one-third from May 2004 to April 2005 (except deficiency correction(s) as in Paragraph 8, which will run until August 1, 2005).

9. **SSO Response Plan.** (Emergency Spill Response). By May 1, 2003, the Municipality shall develop and implement a Response Plan for addressing SSO occurrences. This plan should detail the protocol that will be followed, including provisions for response, remediation, and notification. At a minimum, the Response Plan should include the following:

    1. Standard operating procedures for such common emergencies as sewer blockages, manhole overflows, pipe breaks, pump station failure, and basement flooding from sewer backups caused by wet weather or surcharges.

    2. Procedures to limit public access to an affected area.

    3. Posting and maintaining a sign at the constructed overflow location which identifies the pipe as an overflow location and warning the public that any discharge may contain pathogens which can cause illness.

    4. Procedures to contact the ACHD and the DEP by FAX immediately after any SSO. A standardized reporting form (attached as Appendix A) shall be used.

    5. Procedures for appropriate public notification.

    6. Procedures to pump or capture the SSO for containment and/or treatment where feasible.

    7. Procedures to immediately clean-up any areas impacted by an SSO where feasible.

10. **Data Collection and Submission.** All data collected under the Phase I tasks shall be submitted within fifteen (15) days after the end of each calendar quarter to the ACHD and DEP. GIS data shall be submitted in Environmental Systems Research Institute (ESRI)-compatible format, as specified in Paragraph 4. Televising data collected under Paragraph 3 shall be submitted in a digital format. All other data collected under Phase I tasks shall be stored in a relational database (Open Database Configuration compliant), such as Microsoft Access, or equivalent, and submitted to the ACHD.

PHASE II - FLOW MONITORING AND PLANNING:

11. The Municipality shall employ the services of a professional engineer to oversee the completion of all Phase II flow monitoring and planning tasks set forth in Paragraphs 12 through 15.

12. **Flow Monitoring.** On or before May 1, 2005, the Municipality shall begin a program of flow monitoring of its sanitary sewer system directly or indirectly tributary to the ALCOSAN Sewer System. This flow monitoring program shall determine the actual flows in each municipal sanitary sewer during a range of climatic and groundwater conditions, and provide accurate data for joint use by ALCOSAN and the Municipality in developing a LTCP with a range of practicable alternatives.

Flow monitoring shall be performed as per the ACHD's protocol and according to manufacturer's specifications for the monitoring equipment utilized.

At least eighteen (18) months prior to instituting flow monitoring i.e. November 1, 2003, the Municipality shall submit a preliminary draft flow monitoring plan to ALCOSAN for comment.

Twelve (12) months prior to instituting flow monitoring i.e. by May 1, 2004, the Municipality shall have developed a Flow Monitoring Plan and shall submit it to ALCOSAN for comment.

Six (6) months prior to instituting flow monitoring i.e. by November 1, 2004, the Municipality shall submit the Flow Monitoring Plan along with ALCOSAN's comments to the ACHD for approval. In the event the ACHD does not approve the submittal, the Municipality shall make all corrections required by the ACHD and shall resubmit the flow monitoring plan to the ACHD in a time frame specified by the ACHD.

The Flow Monitoring Plan shall include provisions for:

1. the installation of flow meters at locations within the sanitary sewer system which will document the average daily dry weather flows, the peak quarter-hourly dry weather flows, the peak quarter-hourly wet weather flows, and the total sewage volume during each rainfall event. Readings are to be totalized on 15-minute intervals.

2. maintaining monitoring, for a minimum duration of one (1) year, which shall have a total annual rainfall volume of no less than 66% of the long term annual average rainfall volume and which shall include at least two (2) specific rainfall events, excluding snow melt, equal to or exceeding one (1) inch of rainfall in a twenty-four (24) hour period. If during that one year, two such events do not occur between January and May, and if the total annual rainfall volume does not exceed 66% of the long term annual average rainfall volume, monitoring shall be extended for an additional nine (9) months.

3. monitoring flow at all points of connection with municipalities or authorities whose sanitary and/or combined sewer systems are tributary

to that of the Municipality and at all points of connection at which the sewer system of the Municipality becomes tributary to the sanitary and/or combined sewer system of another municipality or authority;

4. monitoring flow from all SSOs. Flows that cannot feasiblely be measured with one or more flow monitoring devices (including the use of differential monitoring, in which flows upstream and downstream are monitored and the overflow flow rate is calculated as the difference) shall be estimated as to date, time, duration and total volume.

5. coordinating flow monitoring with all municipalities and/or authorities whose sanitary and/or combined sewer systems are either tributary to, or receive flows from, that of the Municipality;

6. coordinating flow monitoring activities so that monitoring within a given sewershed is conducted at the same time within all of the municipalities in that sewershed, and so that flows are measured with meters capable of comparable accuracy and similarly calibrated.

7. sharing with ALCOSAN, ACHD and the other Municipality and Authorities within the Municipality's sewer sheds all flow monitoring data within fifteen (15) days after the end of each calendar quarter.

13. **Facility Design and Planning in Conjunction with ALCOSAN.** Commencing on May 1, 2006, the Municipality shall participate with ALCOSAN in its development and implementation of a LTCP, a Wet Weather Plan, that will resolve the regional wet weather sewer overflow problem by eliminating SSOs and providing for CSO control in conformance with Federal, State and local law; with national CSO Control Policy; and with NPDES Permit requirements. By May 1, 2007, the Municipality shall:

1. establish with ALCOSAN what sewage flow from the Municipality ALCOSAN will be able to accommodate upon implementation of its projected LTCP.

2. develop a plan and schedule to construct and place into operation those sewerage facilities necessary to retain, store, convey, treat, etc, those flows: (i) that ALCOSAN cannot accommodate or (ii) that ALCOSAN could accommodate, but which the Municipality decides to address in a separate manner. In no event shall completion of any task under this schedule extend beyond February 28, 2014.

14. **Sewer System Capacity, Management, Operation land Maintenance Programs (CMOM) Plan.** By November 1, 2007, the Municipality shall submit to the ACHD for its review and approval, a CMOM Plan for all parts of the collection system that the Municipality owns or over which it has operational control. In

the event the ACHD does not approve the submittal, the Municipality shall make all corrections required by the ACHD and shall resubmit the Sewer System Maintenance Plan in a time frame specified by the ACHD. This CMOM Plan shall address the General Standards and the other components, as follows:

1. **General Standards.** The Municipality, must:

    1. Properly manage, operate and maintain, at all times, all parts of the collection system that the Municipality owns or over which it has operational control;

    2. Provide adequate capacity to convey base flows and peak flows for all parts of the collection system that the Municipality owns or over which it has operational control;

    3. Take all feasible steps to stop, and mitigate the impact of, SSOs in portions of the collection system the Municipality owns or over which it has operational control;

    4. Provide notification to parties with a reasonable potential for exposure to pollutants associated with the overflow event; and

    5. Develop a written summary of its CMOM program and make it, and the audit under paragraph (b)(ix) of this section, available to any member of the public upon request.

2. **Components of CMOM Program.** The Municipality must develop a CMOM Program to comply with the General Standards listed in Paragraph 14(a). The Program must include the following components:

    1. **Goals**. The Municipality must specifically identify the major goals of its CMOM Program, consistent with the General Standards identified in Paragraph 14(a) above.

    2. **Organization.** The Municipality must identify:

        (a) Administrative and maintenance positions responsible for implementing measures in its CMOM Program, including lines of authority by organization chart or similar document; and

        (b) The chain of communication for reporting SSOs from receipt of a complaint or other information to the person responsible for reporting to the NPDES authority, or where necessary, the public.

iii. **Legal Authority.** The Municipality must include legal authority, through sewer use ordinances, service agreements or other legally binding documents, to:

(a) Control infiltration and connections from inflow sources;

(b) Require that sewers and connections be properly designed and constructed;

(c) Ensure proper installation, testing and inspection of new and rehabilitated sewers (such as new or rehabilitated collector sewers and new or rehabilitated service laterals);

(d) Address flows from municipal satellite collection systems; and

(e) Implement the general and specific prohibitions of the national pretreatment program that the Municipality is subject to under 40 CFR 403.5.

iv. **Measures and Activities.** The Municipality's CMOM program must address the following elements that are appropriate and applicable to its system and identify the person or position in its organization responsible for each element:

(a) Provide adequate maintenance facilities and equipment;

(b) Maintenance of a map of the collection system;

(c) Management of information and use of timely, relevant information to establish and prioritize appropriate CMOM activities (such as the immediate elimination of dry weather overflows or overflows into sensitive waters such as public drinking water supplies and their source waters, swimming beaches and waters where swimming occurs, shellfish beds, designated Outstanding National Resource Waters, waters within State or local parks, and water containing threatened or endangered species or their habitat), and identify and illustrate trends in overflows, such as frequency and volume;

(d) Routine preventive operation and maintenance activities;

(e) A program to assess the current capacity of the collection system and treatment facilities which the Municipality owns or over which it has operational control;

(f) Identification and prioritization of structural deficiencies and identification and implementation of short-term and long-term rehabilitation actions to address each deficiency;

(g) Appropriate training on a regular basis; and

(h) Equipment and replacement parts inventories including identification and critical replacement parts.

22. **Design and Performance Provisions.** The Municipality must establish:

(a) Requirements and standards for the installation of new sewers, pumps, and other appurtenances; and rehabilitation and repair projects; and

(b) Procedures and specifications for inspecting and testing the installation of new sewers, pumps and other appurtenances and for rehabilitation and repair projects.

vi. **Monitoring, Measurement, and Program Modifications.** The Municipality must:

(a) Monitor the implementation and, where appropriate, measure the effectiveness of each element of its CMOM Program;

(b) Update program elements as appropriate based on monitoring or performance evaluations; and

(c) Modify the summary of its CMOM Program as appropriate to keep it updated and accurate.

vii. **SSO Emergency Response Plan.** The Municipality must continue to implement the SSO emergency response plan developed and implemented under Paragraph 9.

viii. **System Evaluation and Capacity Assurance Plan.** The Municipality must prepare and implement a plan for system evaluation and capacity assurance if peak flow conditions are contributing to an SSO discharge or to noncompliance at a traditional flow. At a minimum, the plan must include:

(a) **Evaluation.** Steps to evaluate those portions of the collection system which the Municipality owns or over which it has operational control which are experiencing or

contributing to an SSO discharge caused by hydraulic deficiency or to noncompliance at a treatment plant. The evaluation must provide estimates of peak flows (including flows from SSOs that escape from the system) associated with conditions similar to those causing overflow events, provide estimates of the capacity of key system components, identify hydraulic deficiencies (including components of the system with limiting capacity) and identify the major sources that contribute to the peak flows associated with overflow events.

(b) **Capacity Enhancement Measures.** Establish short- and long-term actions to address each hydraulic deficiency including prioritization, alternative analysis, and a schedule.

(c) **Plan Updates**. The plan must be updated to describe any significant change in proposed actions and/or implementation schedule. The plan must be updated to reflect available information on the performance of measures that have been implemented.

ix. **CMOM Program Audits.** At least once every five (5) years, the Municipality must conduct an audit, appropriate to the size of the system and the number of overflows, and submit a report of such audit to the ACHD and DEP, evaluating the Municipality's CMOM Program and its compliance with this subsection, including its deficiencies and steps to respond to them.

24. **Funding of CMOM Program.** The Municipality shall develop a plan for obtaining funding for the implementation of the components of the CMOM Program.

15. **Tap Allocations 2002.** The Municipality submits a tap allocation for land development/planning module status for the year 2002 as more fully set forth on Appendix B, a copy of which is attached hereto and made part of this Corrective Action Plan and the Allegheny County Health Department and the requisite other agencies approved said allocation.

16. **Semi-Annual Progress Reports.** The Municipality shall submit to the ACHD and DEP semi-annual written reports of its efforts to comply with the obligations set forth in Paragraph 1 through 17 above until those obligations are completed. Said report shall be submitted to the ACHD and DEP no later than the 31st day of January and July of each year. The first semi-annual progress report shall be due by July 31, 2002 and shall cover the period of January 1 through June 30, 2002. The Municipality shall submit written reports using the "Corrective Action Plan Schedule and Progress Report Form" in Appendix A.

17. The Municipality shall eliminate the separate sanitary sewer overflows either by May 1, 2007 or in conjunction with a regional wet weather plan after executing a Consent Order and Agreement with ACHD and DEP.

18. **Assignment.** This Corrective Action Plan may be assigned to the Monroeville Water Authority upon sixty (60) days written notice of the intent to assign being sent to ACHD and DEP.

19. **Voluntary Enforceable Agreement**. If and when the Municipality of Monroeville or its designee executes a Voluntary Enforceable Agreement with the Allegheny County Health Department and/or the Department of Environmental Protection and/or the United States Environmental Protection Agency, this CAP Plan shall be modified and superseded by said Agreement, and all paragraphs contained within this CAP Plan shall be modified and/or repealed to the extent that they conflict with the terms and conditions of the Voluntary Enforceable Agreement.

WITNESS the due execution this ____ day of _____, 2002.

ATTEST: MUNICIPALITY OF MONROEVILLE

_____ _____

Secretary By: Marshall Bond, Manager

ATTEST: ALLEGHENY COUNTY HEALTH DEPARTMENT

_____ _____

By: _____

ATTEST PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION

_____ _____

By: _____