ALLEGHENY COUNTY HEALTH DEPARTMENT

In the Matter of:

: Sewage

Allegheny County : Article XIV

ADMINISTRATIVE CONSENT ORDER

This Administrative Consent Order is entered into this _____day of _____, 20_____, by and between the Allegheny County Health Department (hereinafter ACHD) and _____Borough/Township (hereinafter Municipality).

The ACHD has found and determined the following:

A. The ACHD is a health department organized under the Local Health Administration Law, Act 315 of August 24, 1951, P.L. 1304, as amended, 16 P.S. ∋12001 et seq., and executes powers and duties vested in it by the laws of the Commonwealth, and the rules and regulations of the State Department of Health and other departments, boards, or commissions of the State government.

B. _____Borough/Township is a municipality as defined in ACHD Rules and Regulations, Article XIV, "Sewage Management", as amended, (hereinafter "Article XIV"), with a mailing address of _____.

C. The Pennsylvania Department of Environmental Protection (hereinafter DEP) issued Water Quality Management Permits for the sanitary sewers and appurtenances owned and operated by the Municipality.

D. The Allegheny County Sanitary Authority (hereinafter ALCOSAN) is a municipal authority formed pursuant to the Municipal Authorities Act, the Act of May 2, 1945, P.L. 382, No. 164, as amended, 53 P.S. 301 et seq., whose mailing address is 3300 Preble Avenue, Pittsburgh, PA 15233-1092.

E. ALCOSAN owns and operates the Woods Run Sewage Treatment Plant (hereinafter Plant), which is located on the north bank of the Ohio River, in the City of Pittsburgh, Allegheny County. The Plant discharges to the Ohio River, a water of the Commonwealth, and a navigable water of the United States. The Plant discharges sewage as defined in Section 1 of the Clean Streams Law,

35 P.S. 691.1, to waters of the Commonwealth. The discharge from the Plant is only authorized by National Pollutant Discharge Elimination System (hereinafter NPDES) Permit No. PA 0025984 issued by the DEP on March 28, 1995 and amended on February 17, 1998.

F. ALCOSAN owns and operates the ALCOSAN Sewer System, a series of shallow cut and deep tunnel sewer lines constructed to convey sewage to the Plant from the municipalities with which it has agreements, including the Municipality.

G. The Municipality owns and operates a sanitary sewer system which conveys sanitary sewage and industrial waste from within the Municipality's geographic borders directly or indirectly to sanitary and/or combined sewerage facilities owned and operated by ALCOSAN. For the purposes of this Administrative Consent Order, any reference to the terms “sanitary sewer” or “sanitary sewer system” includes wildcat sewers and common sewers not privately owned but shall not include private laterals or privately owned common sewers.

H. A sanitary sewer system such as the one owned and operated by the Municipality is designed to convey only sanitary sewage and industrial waste.

I. A Sanitary Sewer Overflow (hereinafter SSO) is an unauthorized discharge of untreated sewage from a sanitary sewer system. As used in this Administrative Consent Order, the term SSO may also be used to refer to a point within the sanitary sewer system, at a location prior to the Plant, at which a discharge occurs from the sanitary sewer system. The Local Health Administration Law, Act 315, Section 12 provides the ACHD with the enabling authority to abate such nuisances, which are detrimental to the public health.

J. A combined sewer system is a sewer system, or parts thereof, which is designed, permitted, built, and operated to convey sanitary sewage, storm water and industrial waste.

K. A Combined Sewer Overflow (CSO) is a wet weather discharge from a sewage collection and/or conveyance system, designed, built, permitted, and operated as a combined sewer system. As used in this Administrative Consent Order, the term CSO may also be used to refer to a point within the combined sewer system, at a location prior to the Plant, at which a discharge occurs from the combined sewer system. All municipalities that have combined sewer systems with CSOs are required to obtain an NPDES Permit for these discharges.

<u>Municipality Causes or Contributes to an SSO:</u>

L. The ACHD alleges that the Municipality periodically:

a. discharges untreated sewage from one or more SSOs in its sanitary sewer system; and/or

b. contributes to the discharge of untreated sewage from one or more SSOs in municipal sanitary sewer systems downgradient from the Municipality; and/or

c. contributes to the discharge of untreated sewage from one or more SSOs at the point of connection to the ALCOSAN Sewer System.

M. The ACHD alleges that the Municipality continues to periodically cause or contribute to the SSOs referred to in Paragraph L above, and has caused, and is causing, nuisances that are detrimental to the public health.

N. ACHD alleges that SSOs are not authorized and are in violation of Article XIV, Sections 1404.1 and 1404.2.

Municipality Contributes to CSOs:

O. The ACHD alleges that the Municipality periodically contributes to the discharge of untreated sewage from one or more CSOs in municipal and/or ALCOSAN combined sewer systems downgradient from the Municipality.

P. Under Section 402(q) of the Clean Water Act, 33 U.S.C., 1342(q), this Administrative Consent Order must conform with the Combined Sewer Overflow Policy signed by the Administrator of the U.S. Environmental Protection Agency on April 11, 1994 (hereinafter "CSO Control Policy"). The CSO Control Policy represents a comprehensive national strategy to ensure that municipalities and the public engage in a comprehensive and coordinated planning effort to achieve CSO controls that ultimately meet appropriate health and environmental objectives.

Q. The CSO Control Policy requires, *inter alia*, the reduction of the frequency of CSOs; the minimization of the current number of CSO discharge locations; the control and containment of the remaining CSOs; and monitoring of the quality and quantity of any remaining CSOs.

R. The CSO Control Policy requires the development of a Long Term Control Plan (hereinafter LTCP). The LTCP must be developed and implemented to achieve the requirements of the CSO Control Policy. Development and implementation of a LTCP is a comprehensive process which will require coordination among municipalities and with ALCOSAN.

Municipality Must Properly Operate and Maintain Its Collection Sewer System:

S. The ACHD alleges that under the Municipality=s Water Quality Management Permit(s), and/or to ensure compliance with Article XIV, Section 1404.1, the Municipality is required to properly operate and maintain its sanitary sewer system.

T. The ACHD alleges that the Municipality has not properly operated and

maintained its sanitary sewer system, which violates Article XIV, Sections 1404.1 and 1404.2.

After full and complete negotiation of all matters set forth in this Administrative Consent Order and upon mutual exchange of covenants contained herein, the parties intending to be legally bound, it is hereby ORDERED by the ACHD and AGREED to by the Municipality as follows:

1. Authority.
   This Administrative Consent Order is authorized and issued pursuant to the Local Health Administration Law, Act 315 of August 24, 1951, P.L. 1304, as amended, 16 P.S. 12001, et seq.; 28 Pa. Code 17.132 et seq.; and Articles XIV and XVI, ACHD Rules and Regulations. The failure of the Municipality to comply with any term or condition of this Administrative Consent Order shall subject the Municipality to any penalty or remedy allowed by law.

2. Findings.
   a. The Municipality agrees that the findings in the preceding Paragraphs A through K and P through R are true and correct and, in any matter or proceeding involving the Municipality and the ACHD, the Municipality shall not challenge the accuracy or validity of these findings.

   b. The parties do not authorize any other persons to use the findings in this Administrative Consent Order in any matter or proceeding.

PHASE I - ASSESSMENT

3. Retention of Engineer.
   As to all tasks set forth in Paragraphs 4 through 12, the Municipality shall employ the services of a Professional Engineer to be knowledgeable of the status of such tasks and to maintain an appropriate level of oversight regarding the completion of all such tasks.

4. Physical Survey/Visual Inspection.
   By May 31, 2007, the Municipality shall complete a physical survey/visual inspection of its sanitary sewer system that directly or indirectly is tributary to the ALCOSAN Sewer System, excepting any portion of the system constructed or reconstructed since January 1, 1995 with records of post-construction municipal inspection consistent with the requirements of this Paragraph 4. The physical survey/visual inspection shall include, all accessible manholes, exposed sewer lines and other visible sewer appurtenances, including, but not limited to, features within the sanitary sewer system intended to release excess flow during wet weather events (“SSO Structures”), siphon chambers, pump stations, and exposed force mains. The physical survey/visual inspection shall identify defects related to safety, defects related to structural stability, accumulated sediment and debris deposits, visible flow bottlenecks, evidence of present or prior surcharging

or overflows, the location of all SSO Structures, and any other condition that compromises and/or diminishes the hydraulic design capacity of the sanitary sewer system. The physical survey/visual inspection shall also identify defects which allow the entrance of infiltration and inflow that compromise and/or diminish the hydraulic design capacity of the sanitary sewer system. A physical survey/visual inspection shall be performed for all accessible manholes, both interior and exposed exterior, and of each sewer line connection at such manholes. The physical survey/visual inspection shall note all documented manholes which cannot be located, visually or with metal detectors, and areas where additional manholes need to be constructed.

The Municipality shall be given credit for past physical survey/visual inspection work if it has been completed since January 1, 1998 and the Municipality can demonstrate through documentation that said work meets the requirements of this Paragraph 4.

5. Sewer Line Cleaning and Closed Circuit Television (CCTV) Internal Inspection.
   a. By May 31, 2010, the Municipality shall complete a CCTV internal inspection of its sanitary sewer system that directly or indirectly is tributary to the ALCOSAN Sewer System, excepting any portion of the system constructed or reconstructed since January 1, 1995 with records of post-construction municipal inspection consistent with the requirements of Paragraph 5.d. The Municipality shall perform cleaning of its sewer system immediately prior to this CCTV inspection, unless the sewer line walls are sufficiently clean to allow an internal inspection by CCTV to detect structural defects, misalignment, infiltration sources and root intrusions.

   b. As a result of CCTV inspection, the Municipality shall record:

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

      ii. all structural defects;

      iii. all defects that compromise or diminish the carrying capacity of the sanitary sewer lines;

      iv. all defects in siphons; and

      v. conditions and/or modifications of the sanitary sewer system that allow for SSOs.

This CCTV record shall also 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.

Additionally, this CCTV record shall include a location reference, incorporate a defect code and defined level of severity or grade associated with each condition noted in the inspection report. These codes and grades shall utilize a uniform ranking and rating system, for example, NASSCO.

c. By November 30, 2006, the Municipality shall inspect by CCTV its sewer lines in that portion of its sanitary sewer system that directly or indirectly is tributary to the ALCOSAN Sewer System that meet the following conditions:

   i. are 10 inches in diameter or greater;

   ii. are trunk sewer segments which are a final conveyance to the ALCOSAN sewer system;

   iii. are associated with chronic basement flooding, chronic surcharge areas or chronic maintenance areas;

   iv. require additional information suitable for model development purposes and/or

   v. are deemed a priority for inspection by a Professional Engineer.

d. Previous sewer line CCTV inspection data may be used to meet the requirements of Paragraph 5 if it has been completed between January 1, 1993 and December 31, 1999, and meets the following conditions:

   i. the inspection indicated that the sewer had no defects causing a restriction in flow or conditions allowing excessive infiltration or inflow into the system and/or significant root intrusions;

   ii. the documentation for the inspection is readily available and includes a visual record of observations, a written summary and conclusions;

   iii. there are no basement backups along the sewer line segment (a “sewer line segment” is defined herein as a contiguous manhole-to-manhole section of sewer pipe); and

   iv. the sewer line segment does not have chronic surcharges.

e. Supplemental CCTV inspection shall not be required for sewer line segments televised on or after January 1, 2000 that document conditions as stated in Paragraph 5.b.

f. Previous CCTV inspection submitted to the ACHD for past work credit does not have to be transferred into a standard format.

6. Sewer System Mapping.
By May 31, 2007, the Municipality shall submit to the ACHD an updated comprehensive sewer map of its sanitary sewer system directly or indirectly tributary to the ALCOSAN Sewer System**,** in accordance with the ACHD GIS Protocol set forth in Appendix A, which is attached and fully incorporated by reference.

The Municipality shall be given credit for previous sewer system mapping data if the data meets the requirements of Appendix A and is incorporated in the updated comprehensive sewer map as required in this Paragraph.

7. Sewer System Dye Testing and Enforcement.
a. By May 31, 2007, the Municipality shall:

i. Complete dye testing or other testing methods (excluding the use of smoke testing to detect roof leader) of all structures to determine the sources of surface stormwater such as roof leaders, yard drains, and driveway drains within its sanitary sewer system that may be directly or indirectly tributary to the ALCOSAN sewer system, excepting any portion of the system constructed or reconstructed since January 1, 1995, with records of dye testing conducted in accordance with this Paragraph.

ii. Test all private and municipal catch basins within 100 feet of the sanitary sewer to verify that they are not connected to the sanitary sewer.

iii. Any illegal connections to the sanitary sewer system from structures or catch basins shall be documented in the GIS map, a relational database consistent with the requirements in Paragraph 12 (Data Collection & Submission), or a digital spreadsheet such as Microsoft Excel.

b.

i. Previous dye testing results, completed on or after January 1, 1985, of structures, and previous CCTV, physical inspection, dye testing, and/or smoke testing of private and municipal catch basins, documenting negative findings (i.e., no illegal connection) may be used to satisfy the requirements of this Paragraph.

ii. Previous dye test results completed on or after January 1, 1985, of structures, and previous CCTV, physical inspection, dye testing, and/or smoke testing of private and municipal catch basins, documenting positive results (i.e., illegal connections) may be used to satisfy the requirements of Paragraph 7, if the illegal connections were removed and documented, or if the Municipality has initiated and is diligently prosecuting a legal or equitable action against the owner of the property in order to seek a resolution of the violation(s). Documentation of the corrections and/or legal actions shall be submitted to ACHD upon request.

c. By November 1, 2004, the Municipality shall:

i. institute and enforce an ordinance or regulation prohibiting connections of surface stormwater to the sanitary sewer system, and

ii. institute and enforce a sewer use ordinance or regulation which requires at the time of all property sales within the Municipality, a visual inspection and dye test of items referenced in this Paragraph to identify illegal connections. The ordinance or regulation shall require the removal of the illegal connections prior to the sale of the property.

d.

i. By November 30, 2007, the Municipality shall require corrective actions to ensure the removal of 95% of the number of illegal connections of sources of surface stormwater identified in this Paragraph or be diligently prosecuting the responsible party(ies) in a legal or equitable action for the removal of said sources from its sanitary sewer system that may be directly or indirectly tributary to the ALCOSAN sewer system.

ii. Removal of documented illegal connections to the sanitary sewer system from structures or catch basins shall be documented in the GIS map, a relational database consistent with the requirements of Paragraph 12, or a digital spreadsheet such as Microsoft Excel. For the remaining 5% of illegal connections, if the Municipality elects not to remove an illegal connection, it shall document the reasons for that decision. This documentation shall be submitted to ACHD.

8. Sewer System Deficiency Corrections.

a. By November 30, 2010, the Municipality shall:

i. complete the repair of all structurally deficient manholes that accept storm water and/or surface water inflow and all defective siphons, pump stations, and force mains identified during the Phase I Assessment tasks completed pursuant to Paragraphs 4 through 7; and

ii. remove all streams and springs connected to the sewer lines as

identified in Paragraphs 4 through 7;

b.

i. Within thirty (30) days of discovery, the Municipality shall initiate repair of all significant structural defects such as sewer lines with collapsed section(s), section(s) with crown and/or invert missing, dirt pipe (missing pipe), void in backfill, and any other defect that the overseeing Professional Engineer determines to need immediate attention. Such repairs to significant structural defects shall be completed within six (6) months of discovery.

ii. Within thirty (30) days of discovery, the Municipality shall repair any structural defect or other condition that causes a complete sewage flow blockage resulting in an overflow, basement flooding, or that causes a public health nuisance. If the Municipality determines the specific sewer system defect or condition that causes a public health nuisance cannot be repaired within thirty (30) days, the Municipality shall notify the ACHD, in writing, within fifteen (15) days of discovery of the defect or condition, and provide a plan and the most practicable schedule for repair or remedial action of the specific defect or condition for the ACHD's review and approval. The Municipality shall take the actions necessary to comply with the requirements of the SSO Response Plan referenced in Paragraph 11.

iii. All other structural defects identified in the Phase I Assessment Tasks shall be addressed pursuant to Paragraph 17.b.iv.(f).

c. Notwithstanding any other requirement of this Administrative Consent Order, if ACHD notifies the Municipality, in writing, of a specific sewer system deficiency that causes a sewage flow blockage that results in an overflow, basement flooding, or that causes a public health nuisance, the Municipality shall repair the sewer system deficiency within thirty (30) days and comply with the SSO Response Plan referenced in Paragraph 11. If the Municipality determines the specific public sewer system deficiency cannot be repaired within thirty (30) days, the Municipality shall notify ACHD, in writing, within fifteen (15) days of receipt of notification, for the ACHD's review and approval, as to a plan and the most practicable schedule for repair or remedial action of the specific deficiency.

d. Pumping and/or capture of any sewage discharge that occurs as a result of conditions described in Paragraphs 8.b. and 8.c. above shall start no later than twenty-four (24) hours after the Municipality becomes aware of the discharge.

9. Hydraulic Design Capacity Evaluation.
   a. By May 31, 2008, the Municipality shall complete a hydraulic design capacity evaluation of its sanitary sewer system, directly or indirectly tributary to the ALCOSAN sewer system, signed and sealed by a Professional Engineer utilizing accepted engineering methods that, at a minimum, includes the hydraulic design capacity of each trunk sewer line of 10-inches or more in diameter, siphon, force main, and pump station; and their design peak flow. This evaluation may be performed simultaneously with the physical survey/visual inspection, sewer line cleaning, internal inspection and sewer system dye testing requirements contained herein. This data shall be documented with the Sewer Data Dictionary referenced in Appendix A. The Municipality shall submit to ACHD the hydraulic design capacity information on an annual basis i.e., one-fourth of its system by May 31, 2005; one-half of its system by May 31, 2006; three-fourths of its system by May 31, 2007; and all of its system by May 31, 2008.

   b. Previous hydraulic design capacity evaluations may be used to satisfy the requirements of this Paragraph if the following conditions are met:

      i. The evaluation reflects the design hydraulic conditions; and

      ii. The evaluation was performed, and signed and sealed by a Professional Engineer utilizing accepted engineering methods.

10. Implementation Schedule.
   a. The Municipality shall complete the actions required in Paragraphs 4, 6, and 7.a. in at least one-third of its sanitary sewer system by May 31, 2005; two-thirds of its system by May 31, 2006; and all of its system by May 31, 2007.

   b. The Municipality shall complete the actions required in Paragraph 5.a. in at least one-sixth of its sanitary sewer system by May 31, 2005; one-third of its system by May 31, 2006; one-half of its system by May 31, 2007; two-thirds of its system by May 31, 2008; five-sixths of its system by May 31, 2009; and all of its system by May 31, 2010, beginning with all sewers of 10 inches in diameter and greater referenced in Paragraph 5.c.

   c. The Municipality shall complete the actions required in Paragraph 5.c. by November 30, 2006.

   d. The Municipality shall complete the actions required in Paragraph 8.a., starting in the second year of the Phase I Assessment, in at least one-fifth of its sanitary sewer system by November 30, 2006; two-fifths of its system by November 30, 2007; three-fifths of its system by November 30, 2008; four-fifths if its system by November 30, 2009; and all of its system by November 30, 2010.

   e. The Municipality shall perform the actions required in Paragraph 9 in at least

one-fourth of its sanitary sewer system by May 31, 2005; one-half of its system by May 31, 2006; three-fourths of its system by May 31, 2007; and all of its system by May 31, 2008.

11. SSO Response Plan. (Emergency Spill Response).
By May 31, 2005, the Municipality shall develop and implement a Response Plan for addressing SSO occurrences in its sanitary sewer system directly or indirectly tributary to the ALCOSAN sewer system. 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:

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

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

    c. 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.

    d. Procedures to contact the ACHD by FAX at 412-578-8053, and by telephone at 412-578-8040 promptly after any SSO. A standardized reporting form shall be used, as shown in Appendix B, which is attached and fully incorporated by reference.

    e. Procedures for appropriate public notification.

    f. Procedures to pump or capture the sanitary sewer discharge that occurs as a result of conditions described in Paragraph 11.a. above for containment and/or treatment where feasible. Pumping and/or capture of a sanitary sewer discharge shall start no later than twenty-four (24) hours after the Municipality becomes aware of the SSO.

    g. Procedures to promptly clean up any areas impacted by any SSO from its sanitary sewer system.

12. Data Collection & Submission.
All data collected under the Phase I (Paragraphs 4, 5, 6, 7, 8, and 9) shall be retained and made available for submission upon request by the ACHD within fifteen (15) days after the end of each calendar quarter to the ACHD at the address listed in Paragraph 28. GIS data shall be stored and shall be submitted to ACHD upon request in Environmental Systems Research Institute (ESRI)-compatible format, as specified in Paragraph 6. CCTV data collected under Paragraph 5 shall be stored in a digital format and shall be submitted to ACHD upon request. All other data collected under Phase I tasks shall be submitted to

the ACHD, upon request, in a relational database (Open Database Compliant) such as Microsoft ACCESS, or in a digital spreadsheet such as Microsoft EXCEL in a form equivalent to the example in Appendix C, which is attached and fully incorporated by reference. Flows shall be calculated and recorded in million gallons per day (MGD), not cubic feet per second (CFS). Data shall be formatted to three (3) decimal places (X.XXX).

PHASE II - FLOW MONITORING AND PLANNING:

13. Retention of Professional Engineer.
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 14 through 16, and to maintain an appropriate level of oversight regarding the completion of the tasks set forth in Paragraph 17.

All reports associated with the completion of Phase II flow monitoring and planning tasks set forth in Paragraphs 14 through 16 shall be signed and sealed by a Professional Engineer.

14. Flow Monitoring.
    a. On June 1, 2007, the Municipality shall begin a program of flow monitoring of its sanitary sewer system to determine the average dry and peak wet weather flows conveyed directly or indirectly from the municipality to the ALCOSAN sewer system. This flow monitoring shall include monitoring of flows from SSO structures that are not located on the ALCOSAN interceptor as set forth in 14.e.(iii) below and shall provide protocol-compliant data for joint use by ALCOSAN and the Municipality in developing a LTCP and or Wet Weather Plan with a range of practicable alternatives.

    b. Flow monitoring shall be performed as per the ACHD Flow Monitoring Protocol attached hereto and incorporated by reference as Appendix D and according to manufacturer's specifications for the monitoring equipment utilized. Additionally, the flow monitoring program shall:

        i. Provide quality assured/quality controlled data suitable for system hydraulic characterization efforts, wet weather plan development, feasibility studies and associated alternative analyses or regulatory compliance reporting.

        ii. Result in data suitable for the quantification of: (a) base infiltration, (b) dry weather flow, and (c) the relationship between wet weather induced inflow/infiltration and precipitation.

c. The Municipality shall coordinate with ALCOSAN to develop a flow monitoring plan that complements any flow monitoring program implemented by ALCOSAN in accordance with the following:

   i. At least twenty-four (24) months prior to instituting flow monitoring, (i.e. by June 1, 2005), the Municipality shall submit a preliminary draft flow monitoring plan to ALCOSAN for comment.

   ii. Eighteen (18) months prior to instituting flow monitoring (i.e. by December 1, 2005), the Municipality shall have developed a Flow Monitoring Plan (as described in Appendix D) and shall submit it to ALCOSAN for comment. The Municipality shall share with ALCOSAN all available flow monitoring data.

d. Twelve (12) months prior to instituting flow monitoring (i.e. by June 1, 2006), the Municipality shall submit the Flow Monitoring Plan along with any comments by ALCOSAN 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. In the event a dispute arises regarding the corrections to the flow monitoring plan required by the ACHD under this sub-paragraph, such dispute shall be subject to the Dispute Resolution provisions of this Administrative Consent Order.

e. The Flow Monitoring Plan shall, at a minimum, include provisions for:

   i. The installation of flow monitors at locations that will document the average daily dry weather flows, the peak hourly dry weather flows, the peak hourly wet weather flows, the total sewage volume during each rainfall event and document and verify the dry and wet weather hydrographs in conformance with Paragraph 14.b.

   ii. Monitoring flow at all points of connection with municipalities and/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. Best professional judgment may be applied to determine points for flow monitoring where, for example, a collector sewer or trunk sewer follows or crisscrosses municipal and/or authority boundaries creating multiple points of connection between the same municipalities and/or authorities. In such cases, monitoring points shall be established such that flows are monitored where the sewer effectively first enters into the Municipality's sewer system from that of another municipality and/or authority and where the sewer finally leaves the Municipality's sewer system and flows into that of another municipality and/or authority.

iii. Monitoring flow from all SSO structures as described in Paragraph 14.a. above. If flow cannot feasibly be measured with one or more flow monitoring devices, the Municipality shall provide the date and estimate the time, duration, rate and amount of the SSO. For the purposes of this sub-paragraph, the availability of differential monitoring, in which flows upstream and downstream are monitored and the overflow rate is calculated as the difference, is a feasible flow monitoring alternative.

iv. If the Municipality chooses to evaluate the hydraulic performance of its sanitary sewer system directly from the flow monitoring data without modeling, the flow monitors shall be installed at locations that will support this approach.

v. If the Municipality chooses to use modeling to evaluate the hydraulic performance of its sanitary sewer system, the flow monitors shall be installed at locations that will support the calibration and verification of the models.

vi. Monitoring of the sanitary sewer system in a manner: (A) to characterize system hydraulics, (B) to provide for development of a Wet Weather Plan, as defined in Paragraph 15.b., (C) to develop a Feasibility Study, as defined in Paragraph 15.c., with associated alternative analyses and (D) to quantify SSO occurrences for future compliance monitoring.

vii. Coordinating flow monitoring activities required by this Paragraph 14 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.

viii. Coordinating flow monitoring activities required by this Paragraph 14 with other municipalities and/or authorities so that monitoring within a given sewershed is conducted at the same time within all municipalities in that sewershed, and so that flows are measured with compatible devices and protocol-compliant methodology. The ACHD's approval of the Municipality's Flow Monitoring Plan which proposes a coordinated sewershed-based approach may be contingent upon adequate demonstration and documentation of the coordination of the flow monitoring program with the other municipalities in the sewershed.

f. The flow monitoring program shall be scheduled during a period of sufficient time to account for seasonality effects on the sanitary sewer system flows. This shall include flow monitoring for a minimum duration of one (1) year, which shall have a total annual rainfall volume of no less than 30.9 inches and which shall include at least two (2) significant rainfall events, excluding any contribution from snow melt, equal to or exceeding one (1) inch of rainfall in a twenty-four (24) hour period. If during the monitoring period the rainfall volume exceeds 30.9 inches and the two (2) significant rainfall events

occur in less than one (1) year, the monitoring program may be terminated when such conditions have been met. If during that one year, the total rainfall volume does not equal or exceed 30.9 inches and two such significant rainfall events do not occur, monitoring shall be extended for: (a) an additional nine (9) months, or (b) until such conditions have been met, whichever occurs first.

g. Within 120 days of completion of the flow monitoring program, the Municipality shall submit to the ACHD a summary and report of the flow monitoring conducted pursuant to Paragraph 14.e. above. The Municipality shall also submit all flow monitoring data to ALCOSAN, ACHD and/or the municipalities and authorities within the sewershed upon their written requests.

h. Prior Flow Monitoring Data: If (i) the Municipality has demonstrated that the service area tributary to the flow monitor has not changed appreciably since data was collected from the site, and (ii) Quality Assurance/Quality Control documentation consistent with Appendix D and this Paragraph 14 exists, data from protocol-compliant flow monitoring (as described in Appendix D) conducted prior to June 1, 2007, but after January 1, 1997 may be used: (A) to inform and refine development of the Municipality's flow monitoring plan with respect to the total number of meters and meter locations, or (B) to supplement new data collected under the regional flow monitoring program required by Paragraph 14.

To obtain approval for use of previous flow monitoring data, the Professional Engineer must submit to the ACHD a summary and data assessment report of such flow monitoring and data as a supplement to the Municipality's proposed flow monitoring plan be submitted under Paragraph 14.d. The supplement must provide documentation that the previous flow monitoring and data are protocol-compliant, consistent with Appendix D. The request for approval for use of previous flow monitoring data must include a signed certification as set forth in Paragraph 21 of this Administrative Consent Order.

15. Feasibility Study in Conjunction with an ALCOSAN Enforcement Order.

a. For purposes of this Administrative Consent Order, the term "Enforcement Order" shall mean a Consent Decree or Consent Order and Agreement, or an order issued by a court or tribunal of competent jurisdiction that requires ALCOSAN to develop and implement a regional Wet Weather Plan and/or a LTCP to eliminate SSOs and to provide CSO control in conformance with Federal, State and local laws, and with NPDES Permit requirements. The Enforcement Order must have resulted from a lawsuit or administrative action initiated by the United States of America, Environmental Protection Agency.

b. For the purposes of this Administrative Consent Order, the term "Wet Weather Plan" includes any plan submitted by ALCOSAN to EPA and/or DEP

which incorporates the requirements of a LTCP and/or addresses other wet weather problems in Allegheny County such as SSOs.

c. If on or before July 1, 2008, ALCOSAN is subject to an Enforcement Order, as defined above, then the Municipality shall, in accordance with the schedule set forth in the Enforcement Order, participate with and cooperate with ALCOSAN in the development of the Wet Weather Plan and/or LTCP required by the Enforcement Order. Such participation and cooperation by the Municipality shall include, but not be limited to:

   i. establishing with ALCOSAN the quantity and rate of sewage flow from the Municipality that ALCOSAN will be able to retain, store, convey and treat upon implementation of a Wet Weather Plan and/or LTCP; and

   ii. developing a feasibility study with an alternatives analysis evaluating the Municipality's options to construct sewage facilities necessary to retain, store, convey and treat sewage flows from the Municipality including, but not limited to, any sewage flows that: (A) ALCOSAN cannot accommodate or (B) ALCOSAN could accommodate, but which the Municipality decides to address in a separate manner ("Feasibility Study").

d. The Municipality shall submit to ACHD the Feasibility Study within six (6) months after ALCOSAN submits a Wet Weather Plan and/or LTCP to EPA and/or DEP as required by the Enforcement Order. The Feasibility Study shall evaluate a range of alternatives, including but not limited to, alternatives to eliminate SSOs, and shall estimate the cost and time necessary to implement or construct each alternative.

16. <u>Feasibility Study in Conjunction with ALCOSAN in the Absence of an ALCOSAN Enforcement Order</u>.
In the event that ALCOSAN is not subject to an Enforcement Order by July 1, 2008, the Municipality shall, commencing on August 1, 2008 and completing on May 31, 2010:

a. participate with ALCOSAN in the development of a Wet Weather Plan and/or a LTCP 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 and with NPDES Permit requirements;

b. establish with ALCOSAN the quantity and rate of sewage flow from the Municipality that ALCOSAN will be able to retain, store, convey and treat; and

c. on or before May 31, 2010, submit to the ACHD, for approval, a schedule for preparation by the Municipality of a plan for the elimination of SSOs in the Municipality, which schedule, upon written approval by the ACHD, shall be incorporated as an enforceable provision of this Administrative Consent Order.

17. Operation and Maintenance Program Plan.
By March 31, 2009 the Municipality shall submit to the ACHD for its review and approval, an Operation and Maintenance (O&M) Program Plan for its Sanitary Sewer System that is directly or indirectly tributary to the ALCOSAN sewer system (for the purposes of this Paragraph hereinafter "Sanitary Sewer System"). In the event the ACHD does not approve the submittal, the Municipality shall make all corrections required by the ACHD and shall resubmit the O&M Program Plan in a time frame specified by the ACHD. In the event a dispute arises regarding the corrections to the O&M Program Plan required by the ACHD, or the time frame specified by ACHD, the dispute shall be subject to the Dispute Resolution provisions of this Administrative Consent Order. This O&M Program Plan shall address the General Standards and the other components, consistent with the terms of this Administrative Consent Order, as follows:

a. General Standards. The Municipality, must:

i. properly manage, operate and maintain, at all times, all parts of its Sanitary Sewer System ;

ii. provide adequate capacity to convey flows for all parts of its Sanitary Sewer System;

iii. take all feasible steps to provide required capacity(ies) to eliminate SSOs in its Sanitary Sewer System and to plan for additional capacity, or other means to eliminate such SSOs;

iv. provide notification to parties with a reasonable potential for exposure to pollutants associated with the overflow event in its Sanitary Sewer System, in accordance with the Municipality's SSO Response Plan developed and implemented under Paragraph 11 of this Administrative Consent Order; and

v. develop a written summary of its O&M Program Plan and make it, and the audit under Paragraph 17.b.(ix), available to any member of the public upon request.

b. Components of O&M Program Plan. The Municipality must develop an O&M Program Plan to comply with the General Standards listed in Paragraph 17.a. The O&M Program Plan must include the following components:

i. Goals. The Municipality must specifically identify the major goals of its

O&M Program Plan, consistent with the General Standards identified in Paragraph 17.a. above.

ii. Organization. The Municipality must identify:

(a) administrative and maintenance positions responsible for implementing measures in its O&M Program Plan, including lines of authority by organization chart or similar document; and

(b) the chain of communication for reporting SSOs in accordance with the SSO Response Plan, from receipt of a complaint or other information to the person responsible for reporting to the ACHD, or where necessary, the public.

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

(a) prohibit connections of surface stormwater to the Sanitary Sewer System, in accordance with Paragraph 7 of this Administrative Consent Order;

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

(c) ensure proper installation, testing, and inspection of new and rehabilitated sewers;

(d) address flows from municipal satellite collection systems to the extent possible; and

(e) require industrial users that discharge to the Municipality's Sanitary Sewer System to comply with ALCOSAN's pretreatment program which is developed under 40 CFR 403.5.

iv. Measures and Activities. The Municipality=s O&M Program Plan must address the following elements that are appropriate and applicable to its Sanitary Sewer 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 its Sanitary Sewer System;

(c) management of information and use of timely, relevant information to establish and prioritize appropriate O&M activities for 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, to identify and illustrate trends in overflows, such as frequency at each location and volume at each location, and for the prompt elimination of dry weather overflows;

(d) routine preventive operation and maintenance activities;

(e) a program to periodically assess the current capacity of its Sanitary Sewer System;

(f) a program to periodically identify and prioritize structural deficiencies and to identify and implement 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 of critical replacement parts and/or identification of appropriate suppliers who have established bench stock inventories.

v. Design and Performance Provisions. The Municipality must establish for its Sanitary Sewer System:

(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 O&M Program Plan;

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

(c) modify the summary of its O&M Program Plan 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 11.

viii. System Evaluation and Capacity Assurance Plan. The Municipality must prepare and implement a plan for periodic evaluation and capacity assurance for its Sanitary Sewer System. At a minimum, the plan must include:

(a) Evaluation. Steps to periodically evaluate those portions of its Sanitary Sewer System which are experiencing or contributing to an SSO discharge caused by a hydraulic deficiency. The evaluation must provide estimates of peak flows (including flows from SSOs that escape from its Sanitary Sewer 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 within its Sanitary Sewer System 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 also be updated to reflect available information on the performance of measures that have been implemented.

ix. O&M Program Plan Audits. At least once every five years, after submission of the O&M Program Plan, the Municipality must conduct an audit, appropriate to the size of its Sanitary Sewer System and the number of overflows, and submit a report of such audit to the ACHD, evaluating the Municipality=s O&M Program Plan and its compliance with this subsection, including its deficiencies and steps to respond to them.

x. Funding of O&M Program Plan. The Municipality shall prepare and implement a plan for obtaining adequate funding for the implementation of the components of the O&M Program Plan.

18. Joint Municipal Scheduling
The Municipality can fulfill some or all of its obligations by entering into a legally

binding agreement with one or more municipalities or authorities within a common sewershed, for the purpose of regional project management. In order to complete the tasks in Phase I and Phase II, the municipalities may submit to the ACHD for its approval, a modified schedule for completing these tasks. The modified schedule need not specify an equal distribution of these tasks for each municipality within each year; however, on a total regional project basis, the modified schedule completion dates shall not exceed the original completion dates. Each municipality or authority entering into the legally binding agreement shall cooperate with one another to assure the completion of all of these tasks within all of the municipalities represented within the legally binding agreement. Nothing in this Administrative Consent Order is intended nor shall it be interpreted to prohibit any municipality or authority who enters into the above-referenced joint agreement from seeking and/or obtaining indemnification from any other municipality or authority that is a party to the joint agreement. In addition, nothing in this Administrative Consent Order is intended nor shall it be interpreted to prohibit or preclude any municipality or authority which enters into the above-referenced joint agreement from seeking or obtaining contribution and/or indemnification from any person or entity.

19. Tap Control Plans.
The Municipality, with regard to any tap control plan in place as part of an ACHD or a DEP-mandated Corrective Action Plan (CAP), shall:

a. Self-regulate connections to portions of its sewer system tributary to ALCOSAN so as to not exacerbate any existing hydraulic overload in its sewer system and/or in any sewer systems into which its sewer system discharges. Self-regulation can continue as long as the Municipality is in compliance with this Administrative Consent Order. The Municipality's compliance with this Administrative Consent Order shall constitute compliance with any current Corrective Action Plan for the portion of its sewer system tributary to ALCOSAN, and ACHD will not impose any future restrictions on tap-ins for the portion of its sewer system tributary to ALCOSAN as long as the Municipality is in compliance with this Administrative Consent Order.

b. In areas with known basement backups of sewage contributed to by the Municipality's sewer system, provide for interim protection against basement backups**.** Methods of protection shall include, but not be limited to, the installation of municipally maintained backflow preventers and/or pressurized laterals**.**

c. Notwithstanding any provision or term in this Administrative Consent Order**,** submit to the ACHD and the DEP all necessary planning modules and revisions for any new connections pursuant to Chapter 71 of the DEP=s Rules and Regulations, 25 PA Code ȣȣ71.1 et. seq.

20. Additional Information.
If the ACHD requires additional information for any submittal pursuant to this Administrative Consent Order, the Municipality shall provide such additional information to the ACHD within fifteen (15) days, unless a longer time is specified in the ACHD=s notice*.*

21. Semi- Annual Progress Reports.
The Municipality shall submit semi-annual written reports (attached hereto as Appendix E) to the ACHD of its efforts to comply with the obligations set forth in Paragraphs 3 through 19 above until those obligations are completed. Said report shall be sent to the address in Paragraph 28 and submitted to the ACHD no later than the 31st day of January and the 31st day of July of each year. The first semi-annual progress report shall be due by July 31, 2004 and shall cover the period of January 1, 2004 through June 30, 2004. The first semi-annual progress report shall also include a detailed list of all prior work that meets the criteria set forth in Paragraphs 4, 5, 6, 7, and 9 for credit toward compliance with the Municipality's obligations under this Administrative Consent Order**.** In addition to the detailed list of prior work, the Municipality shall also submit a "Credit for Past Work Form" signed by a Municipal representative. The Credit for Past Work Form is attached hereto as Appendix F and must be signed, with the following certification:

> I certify under penalty of law that I believe the information provided in this document is true, accurate, and complete. I certify under penalty of law that I am familiar with the information submitted in this document and all attached documents, and, to the best of my knowledge, information and belief and based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate and complete.

Within sixteen (16) months of the submittal, the ACHD will issue a decision accepting or rejecting the Municipality's claim for past work. In the event that a dispute should arise as to the ACHD's decision in this matter, that dispute shall be subject to the Dispute Resolution provision of this Administrative Consent Order. If the ACHD fails to make a decision concerning the credit for past work within sixteen (16) months, the Municipality's request for Credit for Past Work will be deemed approved provided that the information in the Municipality's submittal for credit for past work was not false. If during the term of this Administrative Consent Order, even after the sixteen (16) month period from submittal, the ACHD discovers that the Municipality submitted materially false information, the deemed approval provision of this Paragraph will be null and void and of no effect as to the affected task(s) (i.e. Physical Survey/Visual Inspection, CCTV, Sewer System Mapping, Sewer System Dye Testing and Enforcement or Hydraulic Design Capacity Evaluation) and the Municipality shall be responsible for fully complying with all the requirements of the Paragraph(s) of this Administrative Consent Order that required such task(s) without receiving credit for any past work

for such task(s).

22. Record Keeping.
    a. The Municipality shall maintain copies of any records, reports, plans, permits, data and documents related to or developed pursuant to this Administrative Consent Order, including any underlying research and data, for a period of five (5) years beyond the termination date of this Administrative Consent Order. The Municipality shall require any independent contractor**,** employee, agent, or officer implementing any portion of this Administrative Consent Order to also retain such materials for a period of five (5) years beyond the termination date of this Administrative Consent Order. The Municipality shall submit such supporting documents to the ACHD upon request.

    b. The Municipality shall notify the ACHD ninety (90) days prior to disposal or destruction of such records at the end of this five (5) year period and shall, upon the ACHD=s request, deliver such records to the ACHD prior to such disposal or destruction.

23. Stipulated Civil Penalties.
    a. In the event the Municipality fails to comply in a timely manner with any term or provision of this Administrative Consent Order, the Municipality shall be in violation of this Administrative Consent Order and, in addition to other applicable remedies, shall pay a stipulated civil penalty per day for each violation as follows:

i.	Days 1-14 of each violation	$100 per day per violation
ii.	Days 15-30 of each violation	$200 per day per violation
iii.	Days 31-60 of each violation	$300 per day per violation
iv.	Days 61 and beyond of each violation	$500 per day per violation

    b. Stipulated civil penalty payments shall be payable monthly on or before the fifteenth (15th) day of each succeeding month. The payment shall be made by certified check or the like, made payable to AThe Allegheny County Environmental Health Fund≅ and be sent to the address in Paragraph 28.

    c. Any payment under this Paragraph shall neither waive the Municipality=s duty to meet its obligations under this Administrative Consent Order nor preclude the ACHD from commencing an action to compel the Municipality=s compliance with the terms and conditions of this Administrative Consent Order. The payment resolves only the Municipality=s liability for civil penalties arising from the violation of this

Administrative Consent Order for which the payment is made.

d. The stipulated civil penalties shall be due automatically and without notice.

24. Additional Remedies.
    a. In the event the Municipality fails to comply with any provision of this Administrative Consent Order, the ACHD may, in addition to the remedies prescribed herein, pursue any remedy available for a violation of an order of the ACHD, including an action to enforce this Administrative Consent Order.

    b. The remedies provided by this paragraph and Paragraph 23 are cumulative and the exercise of one does not preclude the exercise of any other. The failure of the ACHD to pursue any remedy shall not be deemed to be a waiver of that remedy. The payment of a stipulated civil penalty, however, shall preclude any further assessment of civil penalties for the violation for which the stipulated civil penalty is paid.

25. Reservation of Rights.
    The ACHD reserves the right to require additional measures to achieve compliance with applicable law. The Municipality reserves its right to challenge any action which the ACHD may take to require those measures.

26. Liability of Municipality.
    The Municipality shall be liable for any violations of this Administrative Consent Order, including those caused by, contributed to, or allowed by its officers, agents, employees, or contractors. The Municipality shall also be liable for any violation of this Administrative Consent Order caused by, contributed to, or allowed by its successors and assigns, unless the ACHD terminates the Municipality's duties and obligations under this Administrative Consent Order pursuant to Paragraph 27.c. below.

27. Transfer.
    a. The duties and obligations under this Administrative Consent Order shall not be modified, diminished, terminated or otherwise altered by the transfer of any legal or equitable interest in the sanitary sewer system or any part thereof unless agreed to by ACHD as set forth in sub-Paragraph 27.c. below.

    b. If the Municipality intends to transfer any legal or equitable interest in the sanitary sewer system which is affected by this Administrative Consent Order, the Municipality shall serve a copy of this Administrative Consent Order upon the prospective transferee of the legal and equitable interest at least thirty (30) days prior to the contemplated transfer and shall simultaneously inform the ACHD of such intent.

    c. The ACHD, in its reasonable discretion, may agree to modify or terminate the Municipality=s duties and obligations under this Administrative Consent Order upon transfer of the sanitary sewer system to an entity that agrees to and is

capable of complying with the terms and conditions of this Administrative Consent Order. In the event a dispute should arise as to the ACHD's decision in this matter that shall be subject to the Dispute Resolution provisions of this Administrative Consent Order.

28. Correspondence with ACHD.
Except as otherwise specifically stated herein, all submissions to or correspondence with the ACHD concerning this Administrative Consent Order shall be addressed as follows:

Geoffrey M. Butia, Chief
Public Drinking Water & Waste Management Program
Administrative Consent Order Section
Allegheny County Health Department
3901 Penn Avenue, Building #5
Pittsburgh, PA 15224-1318

29. Correspondence with the Municipality.
All correspondence with the Municipality concerning this Administrative Consent Order shall be addressed to:

_____
Name

_____
Title

_____
Organization

_____
Address

The Municipality shall notify the ACHD whenever there is a change in the contact person=s name, title, or address. Service of any notice or legal process for any purpose under this Administrative Consent Order, including its enforcement, may be made by mailing a copy by first class mail to the above address.

30. Force Majeure.

a. In the event that the Municipality is prevented from complying in a timely manner with any time limit or other requirement imposed in this Administrative Consent Order solely because of a strike, fire, flood, act of God, or other circumstances beyond the Municipality=s control and which the Municipality, by the exercise of all reasonable diligence, is unable to prevent, then the Municipality may petition the ACHD for an extension of time. An increase in the cost of performing the obligations set forth in this Administrative Consent Order shall not constitute circumstances beyond the Municipality=s control. The Municipality=s economic inability to comply with any of the obligations of this Administrative Consent Order shall not be grounds for an extension of time.

b. The Municipality shall only be entitled to the benefits of this paragraph if it notifies the ACHD within five (5) working days by telephone and within ten (10) working days, in writing, of the date it becomes aware, or reasonably should have become aware, of the event impeding performance. The written submission shall include all necessary documentation, as well as a notarized affidavit from an authorized individual specifying the reasons for the delay, the expected duration for the delay, and the efforts which have been made and are being made by the Municipality to mitigate the effects of the event and to minimize the length of the delay. The initial written submission may be supplemented within ten (10) working days of its submission. The Municipality=s failure to comply with the requirements of Paragraph 30 specifically and in a timely fashion shall render this paragraph null and of no effect as to the particular incident involved.

c. Commercial Unavailability. The Municipality shall be solely responsible for compliance with any deadline or the performance of any work described in this Administrative Consent Order that requires the acquisition and installation of equipment or contracting with a vendor. If it appears that the commercial unavailability of equipment or vendor may delay the Municipality's performance of work according to the applicable implementation schedule, the Municipality shall notify the ACHD in accordance with the requirements of Paragraph 30.b. of any such delays as soon as the Municipality reasonably concludes that the delay could affect its ability to comply with the implementation schedule. The Municipality shall propose a modification to the applicable schedule of implementation set forth herein. Prior to the notice required by this Paragraph, the Municipality must have undertaken reasonable efforts to obtain such equipment and/or contacted a reasonable number of vendors and obtained a written

representation that the equipment and/or vendor(s) are in fact commercially unavailable. In the notice, the Municipality shall reference this Paragraph, identify the milestone date(s) it contends it will not be able to meet, provide the ACHD with written correspondence to the vendor identifying the efforts made to secure the equipment and/or services of the vendor, and describe the specific efforts the Municipality has taken and will continue to take to find such equipment or vendor. The Municipality may propose a modified schedule or modification of other requirements of this Administrative Consent Order to address such commercial unavailability.

d. The ACHD will decide whether to grant all or part of the extension requested on the basis of all documentation submitted by the Municipality and other information available to the ACHD. In any subsequent litigation, the Municipality shall have the burden of proving that the ACHD's refusal to grant the requested extension was an abuse of discretion based upon the information then available to it.

31. Dispute Resolution

a. The Municipality may initiate dispute resolution under this Paragraph in response to any decision of the ACHD under this Administrative Consent Order involving the following matters: (i) the modification or disapproval of any flow monitoring plan submitted by the Municipality to ACHD pursuant to Paragraph 14; (ii) the modification or disapproval by the ACHD of the Municipality's O&M Program Plan pursuant to Paragraph 17; (iii) ACHD's notification of a deficiency pursuant to Paragraph 8.c., or its disapproval of a schedule submitted under Paragraphs 8.b. or 8.c.; (iv) ACHD's disapproval of the transfer of the Municipality's duties and obligations hereunder pursuant to Paragraph 27, (v) ACHD's modification or disapproval of prior work completed by the Municipality for which it desires credit towards compliance with Paragraphs 4, 5, 6, 7, and 9 of this Administrative Consent Order; and (vi) ACHD's disapproval of a schedule submitted under Paragraph 16.c. The Municipality shall bear the burden of proving that the disputed action on the part of the ACHD was an abuse of discretion based upon the information then available to it.

b. To initiate dispute resolution, the Municipality shall provide written notice to the ACHD Manager of Environmental Quality Programs (or equivalent position) (the "Manager") within ten (10) days of receiving the ACHD's decision. The Municipality shall have an additional ten (10) days to provide the ACHD with a written list of objections to the decision in dispute (the "Statement of Position"). The ACHD shall have twenty (20) days to provide its written Statement of Position.

c. Within twenty (20) days following receipt of the ACHD's Statement of Position, the Municipality's representative(s) and the Manager shall meet and confer in an attempt to resolve the dispute. In the event the parties are unable to resolve the dispute within this period, the Manager will issue a final decision concerning the dispute. Either party may request a review of the Manager's decision by the Director of the ACHD within ten (10) days of the receipt of the Manager's decision. The Statement of Position will be provided to the Director to issue a decision regarding the dispute:

   i. For matters described in subparts a.(i), a.(ii) and a.(iii) of this Paragraph, the Director's decision shall be final as to such matters;

   ii. For matters described in subparts a.(iv)., a.(v) and a.(vi) of this Paragraph, the Director's decision shall constitute an appealable action within the meaning of Article XI of the ACHD Rules and Regulations, and the Municipality shall have the right to an appeal to Common Pleas Court as provided by Section 1110 of Article XI. The parties agree to jointly request the court to expedite any proceedings relating to an appeal under this Paragraph.

d. During the pendency of the dispute resolution process set forth above, the Municipality shall not be obligated to perform any work which is the subject of or which performance is directly dependent on the resolution of the dispute. All other obligations and activities shall be completed in accordance with the terms of the Administrative Consent Order. Stipulated civil penalties with respect to the disputed matter shall continue to accrue from the first day of noncompliance with any applicable provision of this Administrative Consent Order, but payment shall be stayed pending resolution of the dispute as provided in this Paragraph. In the event the Municipality does not prevail on the disputed issue, stipulated penalties shall be paid as provided in Paragraph 23 (Stipulated Penalties). In the event the Municipality prevails on the disputed issue, stipulated penalties shall not be due and owing.

e. Any time period for dispute resolution set forth herein may be extended by written agreement of the parties.

32. Severability.
The paragraphs of this Administrative Consent Order shall be severable and should any part hereof be declared invalid or unenforceable, the remainder shall continue in full force and effect between the parties.

33. Entire Agreement.
This Administrative Consent Order shall constitute the entire integrated agreement of the parties. No prior or contemporaneous communications or prior drafts shall be relevant or admissible for the purposes of determining the meaning or intent of any provisions herein in any litigation or any other proceeding.

34. Attorney Fees.
The parties shall bear their respective attorney fees, expenses and other costs in the prosecution or defense of this matter or any related matters, arising prior to execution of this Administrative Consent Order.

35. Modifications.
No changes, additions, modifications, or amendments of this Administrative Consent Order shall be effective unless they are set out in writing and signed by the parties hereto.

36. Effect of Administrative Consent Order.
Notwithstanding any other provisions of this Administrative Consent Order, the parties acknowledge that the Municipality's entering into this Administrative Consent Order is not intended to and does not supersede or alter the terms and/or obligations of: (a) any existing agreements between the Municipality and ALCOSAN, and (b) any existing agreements between or among municipalities relating to sewage. In signing this Administrative Consent Order, the Municipality specifically reserves and does not waive any rights under the foregoing agreements. In addition, this Administrative Consent Order shall not be construed as to afford third party beneficiary status to any third parties, including, without limitation, ALCOSAN, its successors and assigns.

37. Titles.
A title used at the beginning of any paragraph of this Administrative Consent Order may be used to aid in the construction of that paragraph, but shall not be treated as controlling.

38. Decisions under Administrative Consent Order.
Except as provided in Paragraph 31.c.(ii), any decision which the ACHD makes under the provisions of this Administrative Consent Order is not intended to trigger the appeal hearing provisions of Article XI of the ACHD Rules and Regulations. Any objection which the Municipality may have to the decision will be preserved until such time that the ACHD enforces this Order.

39. Termination.
The obligations of this Administrative Consent Order shall terminate on June 30, 2012 or when the ACHD determines that the terms and conditions have been complied with, whichever occurs first.

40. Resolution.

Attached, hereto and incorporated by reference as Appendix G, is a resolution of the Municipality authorizing its signatories below to enter into this Administrative Consent Order on its behalf.

IN WITNESS WHEREOF, the parties hereto have caused this Administrative Consent Order to be executed by their duly authorized representatives. The undersigned representatives of the Municipality certify, under penalty of law, as provided by 18 Pa. C.S. ∋4904, that they are authorized to execute this Administrative Consent Order on behalf of the Municipality; that the Municipality consents to the entry of this Administrative Consent Order as a final ORDER of the ACHD; and that the Municipality hereby knowingly waives its rights to appeal this Administrative Consent Order and to challenge its content or validity, which rights may be available under the ACHD=s Article XIV, Section 1415; or any other provision of law. Signature by the Municipality=s attorney certifies only that the agreement has been signed after consulting with the counsel. A copy of the resolution adopted by the governing body of the Municipality authorizing the signatories below to enter into this Administrative Consent Order on their behalf must be attached to this document by the Municipality.

FOR _____ BOROUGH/TOWNSHIP:

_____
Name (Council/Board President)

_____
Title

_____
Date

_____
Name
Solicitor

_____Borough/Township

_____
Date

FOR THE ALLEGHENY COUNTY HEALTH DEPARTMENT:

_____.
Bruce W. Dixon, M.D.

Director_____
Title

_____
Date

_____
Henry Miller III
Attorney
Allegheny County Health Department

_____
Date

Appendix A
ALLEGHENY COUNTY HEALTH DEPARTMENT
GIS PROTOCOL

INTRODUCTION

The physical inspections required in the Administrative Consent Order are intended to provide four categories of information for inclusion on comprehensive sewer maps:

- General information on the configuration of sewer manholes and their connecting pipes to provide field verification for sewer system mapping
- General information on the condition of sewer manholes and pipes to identify any non-structural operation and maintenance (O&M) needs such as, but not limited to, accumulated sediment and debris deposits, shifted manhole frames, or unsafe manhole steps
- General information regarding sewage pump stations; their configuration, operation, hydraulic capacities, and back-up power sources; force mains; inverted siphons and their condition
- Identify defects related to structural stability, excessive infiltration or inflow, evidence of present or prior surcharging or overflows, hydraulic restrictions, and any other conditions that would compromise and/or diminish the capacity of the sanitary sewer system

In order for a Municipality to create an updated, comprehensive sewer map of the sanitary and/or combined sewers within the entire portion of its sewer system, directly or indirectly tributary to the ALCOSAN Sewer System, a Municipality may build upon the base sewer map that has been created by the 3 Rivers Wet Weather Demonstration Program (3RWWDP), or a comparable base sewer map. The comprehensive sewer 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 flow, the size of the sewer lines, the sewer line material, the locations where flows from other municipalities enter the sewer system, the field-verified 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, and the location of streams or drainage ways tributary to the sewers. These maps shall be created using Geographic Information System (GIS) mapping and verified using Global Positioning System (GPS) ground monitoring or land surveying methods. The GIS mapping shall include the use of the specified attribute tables, data dictionary, etc., defined in this protocol. The maps must include street names, municipal boundaries, and streams. This base data is available from the Allegheny County Division of Computer Services from Kathryn Ross, at 412-350-5126. Additionally, maps should include points of interconnection with

other municipal or private sewer systems and any known points of sewer overflow including sanitary sewer overflows (SSOs), including manhole overflows and basement back-ups from the public sewer. The investigations conducted in preparing these maps shall include the location of any buried or lost manholes through metal detection, excavation or CCTV, the identification of all unsewered residential areas within the sewer system and the associated estimated population of these unsewered residential areas.

PART 1: TECHNICAL REQUIREMENTS

A. All significant sewer system structures such as manholes, regulating chambers, SSO outfalls, pump stations, or other appurtenances should be located to a minimum horizontal accuracy of three (3) feet. Coordinates should be recorded as “real coordinates” in State Plane Pennsylvania South NAD83. Vertical survey information should reference the NAVD88 datum. A spatial data projection file should be included in ESRI format noting the projection and datum used.

B. Structure locations may be determined using the following alternative methods:
- Existing “as-built” sewer system maps, as long as the maps have been field-verified, digitized, and rectified to the existing GIS base maps, or
- Using a GPS where conditions allow, or
- Using traditional land surveying methods

C. In some geographic areas traditional surveying methods may be more productive than using GPS and, in some cases, a combination of above methods may be required. With regard to GPS data collection, additional information such as the number of readings used to define a point; standard deviation of values and the type of data correction should be recorded. The type of data correction can either be real time, post process or raw. The type of equipment and operator should also be included. Adherence to this minimum acceptable requirement will ensure that field verified data throughout the area are consistent.

D. For most of a Municipal sewer system, the precise elevations of manhole covers and manhole inverts are not required. However, surveyed manhole inverts, rim elevations, dam heights, overflow pipe elevations and slopes are required to a minimum vertical accuracy of 0.10 feet for regulator structures and SSO and/or CSO outfalls and structures that directly affect hydraulic performance. Manhole inverts and rim elevations of all accessible manhole structures on trunks sewers shall also be surveyed to a minimum vertical accuracy of 0.10 feet when:

- The sewer pipe has a diameter of 10 inches or greater, or

- The sewer pipe is connected to an ALCOSAN interceptor, in which case survey data will be required for a distance of 600 linear feet above the point of connection with ALCOSAN, or
- The sewer pipe needs more precise invert and slope data to meet the objectives of the hydraulic capacity evaluations.

If the data referenced in this Paragraph has been completed by ALCOSAN, the Municipality is not required to duplicate this work, but must obtain documentation from ALCOSAN.

E. Digital data for basic sewer configuration, such as manhole locations, pipe sizes and materials, and manhole depths, will be entered into attribute tables within the 3RWWDP regional GIS system.

PART 2: GIS ATTRIBUTE DATA

The 3RWWDP has created a GIS base sewer map from the information provided by the communities and/or municipal engineering firms. Using existing municipal GIS mapping, computer drawn maps (CAD), or paper maps converted by heads up digitizing, standardized system base maps were created. All of these individual maps were used to build a comprehensive, though not comprehensively field verified, system-wide map.

This protocol will serve as a guide for the creation of an updated GIS sewer map. It is critical that all municipalities use standard field names and formats so the GIS data collected from each municipality/authority can be easily and cost-effectively integrated to form a complete system-wide map for the ALCOSAN service area.

The Data Dictionary defines the most common fields and field values. While the Data Dictionary does not include all possible fields or field values, the primary aspects of mapping a sewer system are covered. The primary aspects that are covered in the dictionary relate to the physical description and location of the appurtenances and may not be complete enough for an evaluation. If additional fields must be added, for example the manhole inspection reports, then those fields or values should be described in the metadata, the documentation accompanying the GIS data.

2.01 GIS Sewer Data Dictionary

The most recent version of the sewer data dictionary which is in the process of being developed and maintained by Allegheny County will be used.

PART 3: METADATA

Metadata documentation should be compiled and maintained. Metadata documentation should explain the accuracy, source, projection and datum, update schedule, etc., for the comprehensive GIS mapping. Metadata should conform to the standards developed by PaMagic, an organization developing statewide standards, or comparable metadata standards based on the Federal Geographic Data Committee's (FGDC) metadata standard. The entire **Metadata Workbook** can be found at www.fgdc.gov/metadata.

PART 4: REVIEW AND ACCEPTANCE CRITERIA

All sewer-mapping products generated to be in compliance with the ACHD ADMINISTRATIVE CONSENT ORDER shall be submitted to:

Allegheny County Health Department
Public Drinking Water & Waste Management Program
ATTENTION: Geoffrey M. Butia
Administrative Consent Order Section (Sewer Mapping Product)
3901 Penn Avenue, Building #5
Pittsburgh, PA 15224-1318

All sewer-mapping products generated to be in compliance with the PA DEP COA shall be submitted to:

Pennsylvania Department of Environmental Protection
Southwest Regional Office
Attn: Water Management Program
400 Waterfront Drive
Pittsburgh, PA 15222-4745

Data submissions should be made on CD/DVD ROM and should be accompanied by a cover letter describing the contents of the disk. The data format should be consistent with the specifications outlined in the GIS protocols, i.e. ESRI compatible format. The data files should include projection files and metadata files.

Should the submitted data fail to meet the requirements of the GIS protocols, the data will be returned to the municipality with a cover letter indicating the deficiencies along with a description of the necessary corrections and/or additions.

Allegheny County Health Department
Appendix B
Public Drinking Water & Waste Management
3901 Penn Avenue, Building #5
Pittsburgh, PA 15224-1318
Phone: 412-578-8040 FAX: 412-578-8053

SANITARY SEWER OVERFLOW FASCIMILE REPORTING FORM

MUNICIPALITY/AUTHORITY REPORTING INCIDENT		
DATE OF OCCURRENCE **BEGIN** **END**	TIME OF OCCURRENCE **BEGIN** **END**	
LOCATION OF OVERFLOW (street address, diversion structure ID, outfall ID)		
ANY PREVIOUS OVERFLOWS AT THIS LOCATION? (Yes / No)	ESTIMATED DURATION OF OVERFLOW **HOURS**	ESTIMATED TOTAL VOLUME RELEASED GALLONS
DESTINATION OF OVERFLOW (building or basement, ground, storm sewer to stream, directly to stream)		
SPECIFIC RECEIVING WATERS		
SEWER SYSTEM COMPONENT FROM WHICH OVERFLOW OCCURRED (M = manhole; P = pipe; C = constructed overflow; PS = pump station; O = other)	WET OR DRY CONDITIONS	
CAUSE OF OVERFLOW **(W = extreme weather; G = grease problem; R = roots; S = sediment; B = other blockages; D = deterioration of line due to aging system or lack of repair; F = equipment failure, structural failure or power failure; 3 = 3rd party action including vandalism; O = other, please describe)**	SPECIFIC DESCRIPTION OF CAUSE	
STEPS/ACTION TAKEN TO MINIMIZE/ELIMINATE OVERFLOW (where appropriate)		
STEPS/ACTION TAKEN FOR CLEAN-UP (where appropriate)		
REPORT MADE TO DEP (check permit for reporting requirements) DATE TIME		
PERSON COMPLETING FORM **NAME** **TITLE**		
CONTACT PERSON **NAME** **PHONE NUMBER**		

01/02/0

Appendix C - Relational Database Example Sewer Structures

Type of Structure	Structure Identification (1)	Field Verified (Y / N)	Deficiency Noted (May use NASSCO code Identification)	Deficiency Corrected (Y / N)	Notes
MH	1	Y	Missing Brick	Y	
MH	2	Y			
MH	3	Y			
MH	4	Y			
MH	5	Y			
MH	6	Y			
MH	7	N	Not located	N	
MH	8	Y			
MH	9	Y			
MH	10	Y			
Siphon	32A	Y	Blocked Barrel	Y	
Siphon	32B	Y	Blocked Barrel	Y	
MH	11	Y			
MH	12	Y			
MH	13	Y	Fractured Rim	Y	
MH	14	Y			
MH	15	Y			
MH	16	Y			
Pump Station	Jones	Y	Stand-by Pump not working	N	
MH	17	Y			
MH	18	Y			

(1) Structure Identification must be identical to the naming convention used in your GIS MAP

Appendix C - Relational Database Example Pipe Segments

Pipe Segment (1)	Pipe Size (in)	Cleaned (date)	TV (date)	Deficiency Noted (May use NASSCO code identification)	Deficiency Corrected (Y/N)	Design Capacity (mgd) (10" or larger)
1-2	24	1/14/03	1/14/03	Collapsed Pipe	Y	
2-3	24	1/14/03	1/14/03			
3-4	24	1/14/03	1/14/03			
4-5	24	1/14/03	1/14/03			
5-6	24	1/14/03	1/14/03			
6-7	10	1/14/03	1/14/03			
7-8	10	1/14/03	1/14/03	Deformed Pipe	Y	
8-9	10					
9-10	10					
10-11	10					
11-12	10					
12-13	10					
13-14	8					
14-15	8					
15-16	8	1/22/03		Fractured Pipe		
16-17	8					
17-18	8					
18-19	8					
19-20	8					
20-21	8					
21-22	8					

Appendix D:
ALLEGHENY COUNTY HEALTH DEPARTMENT FLOW MONITORING PROTOCOL

PART 1: OVERSIGHT

A. The Municipality shall employ the services of a professional engineer to oversee the completion of all flow monitoring and planning tasks.

PART 2: MONITORING PLAN REQUIREMENTS

A. The Flow Monitoring Plan shall provide data suitable for developing a LTCP/Wet Weather Control Plan.

B. The Flow Monitoring Plan shall include all of the items stipulated in Paragraph 14.e. of the Administrative Consent Order.

C. The Flow Monitoring Plan shall contain at a minimum the following items:
- A GIS map showing the location of all flow monitoring sites
- A delineation of the sewered area for each flow monitor
- The Flow monitoring Technique to be employed
- Manufacturer of Flow Monitors to be used at each site
- Monitoring Crew experience conducting Flow Monitoring
- Approaches to monitoring at or near overflows
- A Data Quality Assurance and Control Plan
- Methods to be used in approximating overflow volume, frequency and duration

D. Flow monitoring shall be performed as per the approved monitoring plan and according to manufacturer's specifications for the monitoring equipment utilized.

PART 3: RAIN DATA

A. An approved Monitoring Plan shall designate a rain gage as a source of rainfall data. The radar calibrated rainfall network is an approved source of rainfall data. The municipality shall use either the nearest available existing rain gage or propose to install a new rain gage at an appropriate location. Use of a multiple gage network may be necessary and appropriate. Use of data from alternate data sources shall be qualified on a case-by-case basis and subject to the approval of ACHD.

PART 4: MONITORING LOCATIONS

A. Monitoring sites shall be designated following field inspection to determine optimal monitoring locations, in conformance with Paragraph 14.e. of the Administrative Consent Order.

B. Field investigations shall verify that monitoring locations conform to the requirements of Paragraph 14.e. of the Administrative Consent Order.

C. Field investigations shall be conducted at selected monitoring locations to verify that hydraulic, site access, safety, and maintenance conditions are suitable for successful flow monitoring. Flow regime conditions such as surface turbulence and backwater interference from downstream pipes and structures shall be recorded. Observed site conditions shall be documented using standardized forms.

D. If the field investigation reveals that the required site is not suitable for successful flow monitoring, an alternate site shall be selected that most closely meets the requirements stipulated in Paragraph 14.e. of the Administrative Consent Order.

PART 5: MONITORING AT OVERFLOW STRUCTURES

A. Following field evaluation, the feasibility of monitoring to quantify flows from an overflow shall be documented. A site-specific monitoring plan shall then be prepared in advance of monitoring overflow points. At a minimum, the overflow monitoring plan shall contain a description of the overflow, a dimensioned sketch, the proposed monitoring approach and/or technology to be used.

B. The overflow monitor points shall be interrogated every three days following the start of monitoring until the equipment is performing properly. Thereafter, weekly interrogation shall be performed or as is appropriate to the approach employed in accordance with the monitoring plan. The sites must also be checked after every precipitation event over one inch in depth at its designated rain gage to check for possible washout or damage to the monitoring equipment. The reliability of monitoring data shall be assessed on a weekly basis for the month following commencement of monitoring. The monitoring results shall be evaluated quarterly thereafter and the findings of each evaluation shall be documented.

C. Monitoring data shall permit flow estimates to be made in units of MGD.

PART 6: MONITOR INSTALLATION

A. A field sketch of each of the selected monitoring locations will be prepared. The sketch will include a dimensioned profile section and plan view of the monitoring manhole, the adjacent upstream and downstream manholes and connecting pipes, and the equipment installation configuration. Describe any adverse hydraulic conditions. Monitoring locations will be identified on a municipal sewer GIS map.

B. Site set-up information such as measured sensor offsets, site name, manhole number, pipe size, meter number, should be provided on hard copy along with pre-installation calibration information verifying the initial calibration and calibrators name, dates of calibration and installation, and an explanation of any variance from manufacturer-recommended procedures.

C. Bench and field calibration of flow metering devices shall be performed as applicable for the monitor type and in accordance with the manufacturer's instructions, and defined in the Data Quality Assurance and Control Plan submitted by the Engineer. Calibration measurements and adjustments shall be documented and dates and time recorded on field sheets. If velocity profiling is performed, appropriate methods shall be employed for the pipe or channel of interest: the 0.9 times U-max or 0.2, 0.4, 0.8 methods will be employed for low flow conditions in smaller pipes; the 2-D method will be used for higher flows in larger pipes.

D. The municipality shall report within 30 days if any monitoring devices are being moved or if there are any substantive changes to meter installations or adherence to the Data Quality Assurance and Control plan. The approved monitoring plan shall be amended and submitted to ACHD within 45 days of changes.

PART 7: DATA RECORDING

A. The memory modules shall be programmed for obtaining and storing readings at 15-minute intervals at the quarter hour (i.e. 2:00, 2:15, 2:30 **not** 2:03, 2:18, 2:33). To match flow data with rainfall data, care shall be taken to ensure all clocks in all the meters are synchronized. Make assurances that no data is lost by checking the manufacturers manual to determine the maximum period of record before new data wraps over previous memory module data.

B. Flows shall be calculated and recorded in million gallons per day (MGD) **not** CFS. Data shall be formatted to three (3) decimal places (X.XXX). Levels shall be recorded in inches, and velocity will be calculated in FPS.

PART 8: METER MAINTENANCE & INTERROGATIONS

A. Each monitor will be interrogated every three days following the initial meter installation until the equipment is performing properly. The monitors shall be interrogated a week later and bi-weekly thereafter for the duration of the monitoring period. The sites must also be checked after every precipitation event over one inch in depth at its designated rain gage to check for possible washout or damage to the monitoring equipment.

B. Field data information, such as depth and velocity readings or flow–points, shall be measured every time a data interrogation is conducted and recorded on the site information sheets to verify the equipment is properly calibrated and providing reliable results. Interrogations shall be scheduled at differing times of day and weather conditions to obtain field data points over a wide range of flow depths.

C. It may be necessary to take additional velocity measurements to get a representative range of field data points to ensure proper calibration.

D. Maintenance of monitoring devices shall be performed during every interrogation. Battery charge, desiccants and vent tubes shall be checked. Sensors shall be inspected and paper, rags, oil, and/or debris shall be cleaned off the sensors in accordance with manufacturer's instructions. It may also be necessary to remove sediment and gravel when it interferes with proper operation of the monitoring devices. Ensure the sensor surfaces remain clean, in good condition and properly formed.

E. A field log of all measurements and interrogations shall be maintained as documentation and shall be available upon request by ACHD.

PART 9: DATA SUBMISSION

A. Consistent file naming conventions will be adopted. Files will be named in accordance with the following format: SITE#MON.TXT, where:

- SITE = 4 character municipality ID (BALD, WMIF, WHIT, PITT, and BREN)
- # = The monitor number within a municipality (e.g. BALD3, WMIF1, PITT2, etc.)
- MON = month (APR for submission 1, MAY for submission 2, JUN for submission 3).

EXAMPLE: SITE#MON.TXT (e.g. BALD3APR.TXT, WMIF1MAY.TXT, etc.)

B. Submit comma-delineated ASCII files of the flow monitoring data in the format below. Add header lines with monitor location and column headings consistent with the following example:

BALD1MAR.TXT - Main Interceptor along Glass Run Road
MM , DD , YY , HH , MM , FLOW (MGD) , LEVEL (IN) , VEL (FT/SEC)
2 , 26 , 96 , 11 , 45 , 3.56 , 14.24 , 2.49
2 , 26 , 96 , 12 , 00 , 3.42 , 13.92 , 2.42
2 , 26 , 96 , 12 , 15 , 3.38 , 13.89 , 2.40
2 , 26 , 96 , 12 , 30 , 3.43 , 13.94 , 2.42

Excel files are also acceptable for data submission.

C. Prepare and submit superimposed flow/level/rainfall versus time plots covering one-month intervals, beginning with the first day of the month. Monthly flow, level and rainfall (vertical axis) versus time (horizontal axis) plots will be prepared for each monthly data submission.

D. Prepare and maintain other quality control documentation such as "scatter plots" (flow versus level or velocity versus level) covering the entire four-week reporting period. Consistent user-selected vertical axis scales shall be used as opposed to varying computer selected axis scales.

E. Prepare and submit the field measurement information in a consistent format.

F. Upon completion the flow monitoring and planning tasks, prepare a summary report for the ACHD's review, Provide a summary and analysis of these aspects of the monitoring and planning effort:

- its conformance with the approved monitoring plan,
- historic QA/QC practices,
- inter-municipal monitoring efforts, and
- both submittals described in above Paragraphs C and D of this Appendix D.

Assess the utility, applicability and scope of the data and the extent to which all of the above components impact fulfilling the objectives of the monitoring effort required by Paragraph 14 of this document.

Appendix E - Semi-Annual Progress Report Form

Municipality _____ **Watershed** _____ Reporting Period _____

Revision Date _____ **Facility:** **SSO Municipalities** From _____ to _____

Task Description	Proposed Start Date	Actual Start Date	Required Completion Date	Actual Completion Date	Required Percentage of Project Complete	Actual Percentage of Project Completed	% of Protocol Compliant Prior work	Comments
PHASE I: Assessment System Plan Development								
(A) Physical survey (Year 1)	June 1, 2004		May 31, 2005		33%			
Physical survey (Year 2)	June 1, 2005		May 31, 2006		66%			
Physical survey (Year 3)	June 1, 2006		May 31, 2007		100%			
(B) Cleaning / CCTV (Year 1)	June 1, 2004		May 31, 2005		16%			
Cleaning / CCTV (Year 2)	June 1, 2005		May 31, 2006		33%			
Cleaning / CCTV (Year 3)	June 1, 2006		May 31, 2007		49%			
Cleaning / CCTV (Year 4)	June 1, 2007		May 31, 2008		66%			
Cleaning / CCTV (Year 5)	June 1, 2008		May 31,2009		82%			
Cleaning / CCTV (Year 6)	June 1, 2009		May 31, 2010		100%			
Cleaning/CCTV / Sewers ≥ 10 inches	June 1, 2004		November 30, 2006		100%			
(C) GIS Mapping (Year 1)	June 1, 2004		May 31, 2005		33%			
GIS Mapping (Year 2)	June 1, 2005		May 31, 2006		66%			
GIS Mapping (Year 3)	June 1, 2006		May 31, 2007		100%			
(D) Dye testing (Yr 1)	June 1, 2004		May 31, 2005		33%			
Dye testing (Yr 2)	June 1, 2005		May 31, 2006		66%			
Dye testing (Yr 3)	June 1, 2006		May 31, 2007		100%			
(E) Enforcement-illegal connections	June 1, 2004		November 30, 2007		95%			
(F) Ordinance/Regulation development								
(i) Time of Sale Ordinance/Regulation	June 1, 2004		November 1, 2004		100%			
(ii) Prohibit Storm Water	June 1, 2004		November 1, 2004		100%			
(G) Deficiency corrections (Year 1)	June 1, 2005		November 30, 2006		20%			
Deficiency corrections (Year 2)	December 1, 2006		November 30, 2007		40%			
Deficiency corrections (Year 3)	December 1, 2007		November 30, 2008		60%			
Deficiency corrections (Year 4)	December 1, 2008		November 30, 2009		80%			
Deficiency corrections (Year 5)	December 1, 2009		November 30, 2010		100%			
(H) Determine hydraulic design capacity of sewer lines (Yr 1)	June 1, 2004		May 31, 2005		25%			

Appendix E - Semi-Annual Progress Report Form

Municipality _____ **Watershed** _____ Reporting Period _____

Revision Date _____ **Facility:** **SSO Municipalities** From _____ to _____

Task Description	Proposed Start Date	Actual Start Date	Required Completion Date	Actual Completion Date	Required Percentage of Project Complete	Actual Percentage of Project Completed	% of Protocol Compliant Prior work	Comments
Determine hydraulic design capacity of sewer lines (Yr 2)	June 1, 2005		May 31, 2006		50%			
Determine hydraulic design capacity of sewer lines (Yr 3)	June 1, 2006		May 31, 2007		75%			
Determine hydraulic design capacity of sewer lines (Yr 4)	June 1, 2007		May 31, 2008		100%			
(I) SSO Response Plan	June 1, 2004		May 31, 2005		100%			
PHASE II: Flow Monitoring & Planning								
(J) Flow Monitoring Program								
(i) Draft plan to ALCOSAN	June 1, 2004		June 1, 2005		100%			
(ii) Plan to ALCOSAN			December 1, 2005		100%			
(iii) Plan to ACHD			June 1, 2006		100%			
(iv) Monitoring	June 1, 2007		Approximately June 1, 2007 - May 31, 2008		100%			
(L) Development of O&M Plan			March 31, 2009		100%			

Tap allocation established for this year _____ Taps issued for this report period _____

Based on the above information, is the Municipality in compliance with the approved schedule? _____ If No, please attach an explanation.
(Yes / No)

Municipal Official: _____ _____
Signature / Title Date

APPENDIX F - CREDIT FOR PRIOR WORK FORM

ACO Program Task	System Description	Protocol Compliant Prior Work	Program Scope for Remaining Work
Physical survey/visual inspection: Structure physical inspection	Number of structures: Total _____ less – New * _____ = Remainder _____	Total number of credited structures: _____	Remaining number of structures to be inspected: _____
CCTV internal inspection	Length of public sewers in linear feet: Total _____ less – New * _____ = Remainder _____	Total length of public sewer segments with protocol compliant CCTV inspection: _____	Length of segments needing CCTV inspection in linear feet:
Sewer system mapping	Length of public sewers in linear feet: Total _____ less – New * _____ = Remainder _____	Completed mapping in linear feet: _____	Remaining mapping in linear feet to be compliant with protocols:
Sewer system mapping: Structure location survey	Number of structures: Total _____ less – New * _____ = Remainder _____	Total number of credited structures: _____	Remaining number of structures to be surveyed: _____
Sewer system mapping: Structure vertical elevations	Number of trunkline manholes, regulating structures, SSO Outfalls: Total _____ less – New * _____ = Remainder _____	Total number of credited structures: _____	Remaining number of structures to be surveyed: _____

APPENDIX F - CREDIT FOR PRIOR WORK FORM

ACO Program Task	System Description	Protocol Compliant Prior Work	Program Scope for Remaining Work
Dye Testing	Number of structures _____ Number of catch basins _____	Total number of credited structures _____ Total number of credited catch basins _____	Remaining number of structures to be evaluated: _____ Remaining number of catch basins to be evaluated _____
Hydraulic design capacity evaluation	Length of trunkline plus length of segment with chronic wet weather problems in feet: _____	Length of trunkline where evaluation has been performed in feet: _____	Remaining length to be evaluated in feet: _____
* "New" means new construction that meets the applicable requirements of this Administrative Consent Order Total minus new equals the remainder of the system that is subject to the requirements of this Administrative Consent Order			

Submitted by: _____**(Municipality)**

I certify under penalty of law that I believe the information provided in this document is true, accurate, and complete. I certify under penalty of law that I am familiar with the information submitted in this document and all attached documents and, to the best of my knowledge, information and belief and based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate and complete.

_____

Name Signature Date

APPENDIX G

RESOLUTION OF

_____ BOROUGH/TOWNSHIP

AUTHORIZING SIGNATORIES TO ENTER INTO THIS ADMINSTRATIVE CONSENT ORDER