

actual experience in the process of implementing the final plan so dictates. Any such reevaluation or recommended reordering of priorities under this paragraph shall not by itself revise or modify the enforceable schedules of the final report.

32. The City shall require and the contract with the City shall provide that after the filing of the final report with the Court, the independent consultant shall commence evaluations of the City's compliance with the findings and schedules contained in the final report filed with the Court. The contract shall further provide that such reviews of the City's compliance by the independent consultant shall continue until the City is released pursuant to Paragraph 40 from obligations arising under this section I of this Decree. The contract shall further provide that the independent consultant shall prepare quarterly reports for submission to all parties, which reports shall be submitted by the last day of the month following the completion of each calendar quarter.

33. The contract with the City shall provide that the independent consultant's quarterly reports shall make an independent assessment of the City's efforts to comply with requirements of the final report and shall include, at a minimum: (a) an assessment of the City's compliance with requirements and deadlines of the final report that were to have been implemented during that reporting period; (b) an assessment of the City's progress toward meeting the requirements that are to be implemented in the future; and (c) an

evaluation of the reasons for any violations reported in the City's Discharge Monitoring Reports. The independent consultant's quarterly reports shall, to the extent possible, specifically assess the relative importance, within the context of the final plan as a whole, of the City's extent of compliance or noncompliance with each requirement or deadline that was to have been implemented or achieved during the reporting period. The independent consultant's quarterly reports shall also attempt to assess and evaluate the cause or causes of any delay or failure fully to implement or achieve any such requirement or deadline, and shall, whenever possible, evaluate the likely consequences and relative importance of any such delay or failure with respect to its effect on the City's ability to achieve and maintain long term compliance at the Southwest Plant. The independent consultant shall not, however, offer an opinion on the ultimate issue of the City's achievement or failure to achieve substantial compliance with the applicable quarterly requirements and deadlines of the final plan, which finding is specifically reserved to the United States, after consultation with the Commonwealth, and to the Court should the City file a petition pursuant to paragraph 58 hereof to resolve a dispute regarding the United States' finding.

34. All quarterly reports from the independent consultant shall be submitted simultaneously to all parties to the Decree. Any party may comment on the report by submitting

comments to the United States with a copy to all other parties to the Decree. The failure by any party to comment on or object to any aspect of the quarterly report written by the independent consultant shall not be construed as an endorsement of that aspect of the report.

35. The City shall require and the contract with the City shall provide that the independent consultant is not permitted to consider, in determining necessary actions or the schedules for implementing those actions in either the final report or the quarterly reports, any political, bureaucratic or financial limitations on the City, except those management, legal or cost/benefit considerations that are generally applicable in the management of large municipal wastewater treatment plants. These generally applicable considerations and limitations shall not be defenses to the City's failure to comply with requirements set forth in sections other than I of this Decree, except to the extent available in the absence of this paragraph. If the City believes that it cannot, or should not be required to, implement a particular action in the final report or to implement such actions on a particular schedule, because of such restraints that the independent consultant is not permitted to consider, the City may state such views in its comments on the draft report or the quarterly reports prepared by the independent consultant. Those comments may be considered by the United States, in consultation with the

Commonwealth, in making determinations regarding compliance under paragraph 37 hereof.

36. The City's contract with the independent consultant shall provide that time is of the essence in the performance of the contract and shall provide for termination of the contract in the event that the independent contractor fails to perform adequately under the contract. Such provision may only be exercised upon agreement of all parties or upon order of the Court after petition by any party.

37. Within sixty (60) days of receiving the third quarterly report, and each quarterly report thereafter, the United States shall make a finding, after consultation with the Commonwealth, whether the City is in substantial compliance with the requirement of paragraph 30 to implement the final report, and shall state such finding in writing. A separate finding shall be made by the United States with respect to each of the three elements of the final report: Remedial Action, Staffing, and Maintenance Management. The sixty (60) day review period may be extended by the United States if information needed by the United States to make its finding is not provided promptly by the City.

38. If the United States determines, after reviewing the third or any subsequent quarterly report, that the City is not in substantial compliance with the requirements of the Decree, the United States will issue a finding setting forth that determination and stating the reasons therefor.

39. If the City disputes any finding of noncompliance made pursuant to paragraphs 37 and 38 of this Decree by the United States, the City may petition the Court under the dispute resolution provision set forth under Paragraph 58 of the Decree.

40. The City will be released from all provisions and liability for stipulated penalties arising under this section I as to each element separately after the United States or the Court finds, under the provisions of paragraphs 37, 38 and 39 of this Decree, that the City has substantially complied with the requirements of each element of the final report for four out of five consecutive quarters.

J. ENVIRONMENTAL CONFERENCE COMMITTEE

41. The parties to this Consent Decree have agreed to form an environmental conference committee, which shall consist of one or more designated representatives from each of the three parties to the Decree. The committee shall meet to discuss selection of the independent consultant under this Decree and to review the draft report issued by the independent consultant with the independent consultant pursuant to paragraph 30 of this Decree. The committee may meet on such additional occasions as the participants select, to review the progress of compliance with the Decree. A meeting of the environmental conference committee may be called by agreement of any two of the three parties. The committee shall not have

the authority to take any actions, except by unanimous consent of all parties to the Decree and as limited by the Decree.

K. FUNDING

42. Performance of the terms of this Consent Decree by the City is not conditioned on the receipt of any Federal or Commonwealth grant or other funds. In addition, the City's performance is not excused by the failure to obtain, or by the shortfall of any, Federal or Commonwealth grant or other funds, or by delays in the processing of any applications for same.

L. REPORTING

43. Beginning with the first full calendar quarter following entry of this Decree and for every calendar quarter thereafter until each of the City's obligations terminates pursuant to section BB, the City shall submit in writing to the United States, the Commonwealth and the independent consultant a report containing at a minimum the following information:

(a) the status and progress of work required under paragraphs 8 through 12 of this Decree, in sufficient detail to allow review of the operating status of each of the components listed in paragraphs 8 through 12, (b) any anticipated delays in implementing the requirements of the final report prepared pursuant to paragraph 30, (c) information as to compliance or noncompliance with the applicable effluent limitations and reasons therefore, (d) information as to compliance or non-compliance with pretreatment permits issued under paragraph 11

of this Decree, and reasons therefore, and (e) notifications of the actions required pursuant to paragraphs 22, 25, 27 and 28. Upon request, the City shall automatically be entitled to one five (5) day extension of the deadline for submission of any such report. Notification to the United States or the Commonwealth pursuant to this section of any anticipated delay shall not, by itself, excuse the delay.

44. The reports required in paragraph 43 hereof shall be submitted within forty five (45) days following the last day of each calendar quarter.

M. STIPULATED PENALTIES

45. If the City fails to comply with any of the requirements of paragraphs 3, 8-12, 22, 25-26, 28, 43, 44, 57 or 60 of this Decree, the City, upon demand by the United States after consultation with the Commonwealth, shall pay stipulated civil penalties as follows:

<u>Period of Failure to Comply</u>	<u>Penalty</u>
1st to 30th day	\$ 500.00/day per violation
31st to 60th day	\$1,000.00/day per violation
After 60 days	\$2,000.00/day per violation

46. The City, upon demand by the United States after consultation with the Commonwealth, shall pay the following stipulated civil penalties for non-compliance with the interim effluent limitations contained in paragraph 13 of this Consent Decree.

<u>Violation of Each Parameter</u>	<u>Penalty</u>
Monthly Average Concentration Limit	\$10,000.00 per month per parameter
Monthly Average Loading Limit	\$10,000.00 per month per parameter
Monthly Average Percent Removal	\$10,000.00 per month per parameter

47. If the City fails to achieve full compliance with the requirements of paragraphs 17 and 18 of this Decree after January 1, 1991, the City shall, upon demand by the United States after consultation with the Commonwealth, incur stipulated penalties as set forth in this paragraph.

(a) For TSS loading, TSS concentration, TSS percent removal, BOD5 concentration and FSOD loading monthly average limitations, the stipulated penalty for each parameter shall be \$10,000 per parameter for each month of violation, but \$20,000 per parameter per month for the second consecutive and any subsequent consecutive month of violation.

(b) For BOD5 loading monthly average and BOD5 percent removal violations, the stipulated penalty shall be \$5,000 per violation per month. No stipulated penalties shall be assessed for violation of these requirements or for violation of any BOD5 loading weekly average limitations in any month for which the City is in compliance with the permit's monthly average FSOD loading effluent limitation.

(c) For all other violations of the City's NPDES permit not covered by subparagraphs (a) and (b) above, stipulated penalties shall be as follows:



<u>Type of Violation</u>	<u>Penalty</u>
Weekly Average Violation	\$ 2,500 per week
pH	\$ 3,000 per day
Fecal coliform - monthly geometric average violation	\$10,000 per month, plus \$1,000 for each exceedance of the requirement that no more than 10 percent of the samples exceed 1,000/per 100ml.
Instantaneous maximum violation	\$1,000 per day

The penalties under this paragraph are in addition to any other penalty that may be incurred under the provisions of this Decree.

48. If the City fails to comply with any of the effluent limits contained in the final industrial user pretreatment permits issued by the City to the Belmont and Queen Lane Water Treatment Plants, the City shall, upon demand by the United States after consultation with the Commonwealth, incur stipulated penalties of \$1,000 per day that such violations continue. If a discharge or release of pollutants from the Belmont or Queen Lane Water Treatment Plants causes interference or pass through at the Southwest Plant, the City shall pay stipulated penalties of an additional \$1,000 per day that such discharge or release continues. Stipulated penalties for pass through or interference shall be in addition to stipulated penalties for violations of the interim or final effluent limitations applicable to the Southwest Plant.

49. For each quarter in which the United States determines, under the provisions of paragraph 37 hereof, that the City is not in substantial compliance with the requirement of the Decree to implement the final report, the City shall pay stipulated penalties of \$15,000 per quarter for each element (i.e., Remedial Action, Staffing, and Maintenance Management) as to which the United States makes a finding of noncompliance, i.e., for a maximum quarterly stipulated penalty under this paragraph of \$45,000.

50. Following any demand by the United States after consultation with the Commonwealth, that is not timely contested by the City, any stipulated penalties incurred by the City shall be paid 50% to the United States and 50% to the Commonwealth by cashier's check. In the case of the United States, the check shall be payable to "Treasurer of the United States," and tendered to the Chief of the Civil Division, United States Attorney's Office for the Eastern District of Pennsylvania, Suite 1300, 615 Chestnut Street, Philadelphia, PA 19106. In the case of payments to the Commonwealth, the cashier's check shall be made payable to the "Commonwealth of Pennsylvania, Clean Water Fund," and shall be tendered to the Regional Environmental Protection Manager, Bureau of Water Quality Management, Pennsylvania Department of Environmental Resources, 1875 New Hope Street, Norristown, PA 19401. A copy of the letter and both checks shall be sent to the United States, the Commonwealth, and the Regional Hearing Clerk, U.S. EPA Region III, 3R000, 841 Chestnut Street,

Philadelphia, PA 19107. Stipulated penalties incurred under this Decree shall be tendered within sixty (60) days of the City's receipt of the demand, unless the City timely contests the demand pursuant to section N or paragraph 58 of this Decree. If the City invokes the dispute resolution provisions of paragraph 58, the stipulated penalties subject to that dispute shall be paid to the United States and the Commonwealth within sixty (60) days after the dispute is resolved or the Court renders a decision on the dispute, whichever is earlier. Stipulated penalties for any continuing violation shall continue to accrue during the resolution of any dispute.

N. DELAYS OR IMPEDIMENTS TO PERFORMANCE

51. The City shall notify, in writing, the United States and the Commonwealth that a milestone has not been achieved: (a) no later than thirty (30) days after any missed milestone date expressly set forth in paragraphs 8 through 12, 20, 22, 25, and 28, or (b) in the City's comments, pursuant to paragraph 34, on the independent consultant's quarterly reports regarding milestone dates set forth in the final report with which the City is required to comply by paragraph 30 of this Decree. The notices shall specifically reference this paragraph of the Decree and shall describe in detail the anticipated length of time the violation may persist, the precise cause or causes of the violation, the measures taken

*Final report*  
*Issue 15*  
*NTF*  
*Rel*  
*TR*

or to be taken by the City to prevent or minimize the violation as well as to prevent future violations, and the timetable by which those measures will be implemented. The City shall adopt all reasonable measures to avoid or minimize any such delay. Failure by the City to comply with the notice requirements of this paragraph shall render this paragraph void and of no effect as to the particular incident involved, and shall constitute a waiver of the City's right to obtain an extension of time for its obligations under this paragraph based on such event.

52. If the City claims, and the United States agrees, after consultation with the Commonwealth, that any violation of any effluent limitation or other provision of this Decree or any delay in achieving any milestone set forth herein has been caused entirely by circumstances beyond the control of the City and that the City could not reasonably have foreseen and prevented such violation, the time for performance of such requirement shall be extended for a period not to exceed the total actual delay resulting from such circumstance, and stipulated penalties shall not be due for said delay or violation. In the event the parties are unable to agree, the City may submit the matter to the Court for resolution pursuant to paragraph 56 of this Decree.

53. The United States shall notify the City in writing of the United States' agreement or disagreement with the City's claim of delay or impediment to performance as

promptly as is practicable and, at its discretion, request that the City provide further information. Following the latest of (i) receipt by the United States and the Commonwealth of any such claim, (ii) receipt of further information requested of the City, or (iii) receipt of a statement that the City declines to provide such information, the United States will in good faith attempt to respond to such claim within thirty (30) days; provided, however, that where the United States is unable to so respond it shall within that thirty day period and with no prejudice to its eventual position on such claim, notify the City of the additional time needed for response. In the event that the United States declines to approve any such claim, its response shall state the reason(s) for that position. If the City submits the matter to the Court for resolution and the Court determines that the violation was caused entirely by circumstances beyond the control of the City and that the City could not reasonably have foreseen and prevented such violations, the time for performance of such requirement shall be extended for a period not to exceed the total actual delay resulting from such circumstances, and stipulated penalties shall not be due for said delay or violation.

54. Unanticipated or increased costs or expenses associated with the implementation of this Decree, changed financial circumstances, or alleged technical infeasibility of meeting NPDES effluent limitations shall not, in any event,

serve as a basis for changes in this Decree or extensions of time under this Decree.

55. Compliance with any requirement of this Decree shall not, by itself, constitute compliance with any other requirement of this Decree. An extension of one compliance date based on a particular incident shall not necessarily result in an extension of a subsequent compliance date or dates. The City must make an individual showing of proof regarding each delayed incremental step or other requirement for which an extension is sought.

56. The City shall bear the burden of proving that any delay or violation of any requirement of this Consent Decree was caused entirely by circumstances beyond the control of the City and that the City could not reasonably have foreseen and prevented such violation. The City shall also bear the burden of proving the duration and extent of any delay or violation attributable to such circumstances.

O. PENALTY FOR PAST VIOLATIONS

57. The City shall pay a civil penalty in the amount of \$1,500,000.00, with interest at 7.25%, in full satisfaction of the United States' and the Commonwealth's claims for the City's violations of the Clean Water Act, the Pennsylvania Clean Streams Law, and the NPDES permit, as set forth in the Complaints filed herein through the date of entry of this Decree. Payment shall be made in three (3) installments due

sixty (60) days, one (1) year, and two (2) years after entry of this Decree of \$500,000, \$572,500 and \$536,250 respectively. In consideration of the above penalty, the United States and the Commonwealth waive the right to seek civil or administrative penalties in addition to those set forth in this Decree for violations of the City's NPDES Permit that predate the entry of this Decree.

Payments shall be transmitted as follows:

(a) The City shall tender one cashier's check on or before each payment date for 67% of the amount set forth above, payable to the "Treasurer of the United States" to the Chief of the Civil Division, United States Attorney's Office for the Eastern District of Pennsylvania, Suite 1300, 615 Chestnut Street, Philadelphia, Pennsylvania 19106. A copy of the check and the letter tendering such check shall be sent to the Commonwealth.

(b) The City shall tender one cashier's check on or before each payment date for 33% of the amount set forth above, payable to the "Commonwealth of Pennsylvania, Clean Water Fund," to the Regional Environmental Protection Manager, Bureau of Water Quality Management, Pennsylvania Department of Environmental Resources, 1875 New Hope Street, Norristown, Pennsylvania 19401. A copy of the check and the letter tendering such check shall be sent to the United States.

P. DISPUTE RESOLUTION

58. If the parties are unable to agree upon any plan, procedure, standard, requirement, approval, disapproval, finding, or other matter described herein, or in the event a dispute should arise among the parties regarding the implementation of the requirements of this Decree, the City shall follow or comply with the position of the United States as set forth in writing pursuant to paragraphs 14, 19, 24, 37, 38, 40 and 53, section I or any other provision of this Decree, unless the City files a petition with the Court for resolution of the dispute within thirty (30) days of receipt of the United States' position. The petition shall set out the nature of the dispute and shall include a proposal for its resolution. The City shall bear the burden of proof on any such petition. The United States shall have thirty (30) days to file a response, which may contain an alternate proposal for resolution. The City shall have fifteen (15) days from receipt of the United States' response to file a reply. These filings shall constitute the record for purposes of resolving the dispute, and no additional evidence may be submitted, except upon order of the Court. In all other respects not inconsistent with this provision, the Federal Rules of Civil Procedure shall apply. At any time prior to the filing of said petition with the Court, any party may refer the dispute to the Environmental Conference Committee for informal, nonbinding discussion in aid of settlement. Such referral shall be effective for a period



of thirty (30) days unless all parties enter into a stipulation extending its duration, and all deadlines contained in this paragraph, including without limitation the deadline for filing of a petition with the Court, shall be stayed during the effective period of said referral.

59. In the event any party desires to modify the final report, produced pursuant to paragraph 30 hereof, such party shall file a petition with the Court, which shall set forth the grounds for the modification. The petitioning party shall bear the burden of proof. Any other party may file a response within thirty days, and the petitioning party may file a reply 15 days thereafter. In all other respects not inconsistent with this provision, the Federal Rules of Civil Procedure shall apply.

Q. RIGHT OF ENTRY

60. Until termination of this Consent Decree, the United States and the Commonwealth, and their representatives, contractors, consultants, and attorneys, shall have the authority to enter any facility covered by this Decree, at all times, upon proper presentation of credentials to the manager or managers of the facility or, in the manager's absence, to the highest ranking employee present on the premises, for the purposes of:

(a) monitoring the progress of activities required by this Decree:

(b) verifying the data or information submitted to the United States and the Commonwealth in accordance with the terms of the Decree;

(c) obtaining samples, and, upon request, splits of any samples taken by the City or its consultants;

(d) assessing the City's compliance with this Decree; and

(e) reviewing and copying any and all records pertaining to the Southwest Plant.

Nothing in this section shall be construed to limit the United States' or the Commonwealth's right of access pursuant to the Clean Water Act, the Clean Streams Law, any other Federal or Commonwealth law, or the City's NPDES permit.

R. COMMONWEALTH'S CONTINGENT LIABILITY

61. This Decree does not resolve any contingent liability of the Commonwealth under section 309(e) of the Act, 33 U.S.C. § 1319(e), for payment of any judgment, or any expenses incurred as a result of complying with any judgment, entered against the City, to the extent that the laws of the Commonwealth prevent the City from raising revenues needed to comply with such judgment. The United States reserves its claims against the Commonwealth under section 309(e) of the Act, 33 U.S.C. § 1319(e), and the Commonwealth reserves its defenses to those claims.

S. NOT A PERMIT

62. This Consent Decree is not and shall not be interpreted to be a permit, or a modification of an existing permit, issued pursuant to section 402 of the Clean Water Act, 33 U.S.C. § 1342, nor shall it in any way relieve the City of its obligation to obtain a permit and to comply with the requirements of the permit or with any other applicable Federal or Commonwealth law or regulation.

T. FAILURE OF COMPLIANCE

63. The United States and the Commonwealth do not, by their consent to the entry of this Decree, warrant or aver in any manner that the City's complete compliance with this Decree will result in compliance with the provisions of the Clean Water Act, 33 U.S.C. § 1251 et seq., or NPDES permit No. PA0026671. Notwithstanding the United States' and the Commonwealth's review and approval of any plans formulated pursuant to this Consent Decree, the City shall remain solely responsible for compliance with the terms of the Act, this Decree, and the City's NPDES permit.

U. NON-WAIVER PROVISIONS

64. This Consent Decree in no way affects or relieves the City of responsibility to comply with any Federal, Commonwealth, or local law or regulation.

65. The United States and the Commonwealth waive the right to seek civil penalties over and above the stipulated penalties set forth in this Decree for violations of the permit or this Decree that are covered by such stipulated penalties, except as set forth in paragraph 66 below.

66. The United States and the Commonwealth expressly reserve the right to:

(a) seek injunctive relief against the City for any violations of this Decree or for violations of law not covered by this Decree;

(b) seek criminal penalties for any violations of law;

(c) institute civil or criminal contempt proceedings against the City for violations of this Decree;

(d) petition this Court for whatever additional injunctive and penalty relief they deem necessary, including penalties up to the statutory maximum, in order to assure compliance with the BOD5 effluent limitations of the City's permit, in accordance with the provisions of paragraph 18 of this Decree; and

(e) seek civil penalties against the City for discharges from outfall number 001 of the Southwest Plant that cause (i) demonstrable and serious harm to the aquatic life of the receiving waters, or; (ii) demonstrable and serious violation of any numeric water quality standard applicable to

the receiving waters and applied to the Southwest Plant by the permit.

V. COSTS OF SUIT

67. Each party shall bear its own costs and attorney's fees in this action.

W. FORM OF NOTICE AND CERTIFICATES OF COMPLIANCE

68(a). Except as specified otherwise, when written notification to or communication with the United States, the City, or the Commonwealth is required by the terms of this Consent Decree, it shall be addressed as follows:

As to the United States:

Chief, Civil Division  
U.S. Attorney's Office  
Suite 1300  
615 Chestnut Street  
Philadelphia, PA 19106

Chief, Environmental  
Enforcement Section  
Land and Natural Resources  
Division  
Department of Justice  
10th & Pennsylvania Ave.  
Washington, D.C. 20530

John Trainer  
Permit Enforcement Branch  
Compliance Section  
Water Division  
U.S. Environmental  
Protection Agency  
841 Chestnut Street  
Philadelphia, PA 19107

As to the Commonwealth:

Environmental Protection Manager,  
Bureau of Water Quality  
Management  
PA. Department of Environmental  
Resources  
1875 New Hope Street  
Norristown, PA 19401

As to the City:

Abby L. Pozefsky  
Divisional Deputy City Solicitor  
City of Philadelphia  
Water Department  
5th Floor ARA Tower  
1101 Market Street  
Philadelphia, PA 19107

Any party may change the identity of persons to whom notifications must be sent under this paragraph by notifying all other parties to the Decree, in writing, of the change.

( 68(b). The written certificate of compliance required in paragraphs 14, 19 and 24 of this Decree shall be in the following form:

I certify that the information contained in or accompanying this certificate of compliance is true, accurate and complete. As to the portions of this certificate of compliance for which I cannot personally certify truth and accuracy, I certify as the official having supervisory responsibility for the person(s) who, acting under my direct instructions, made the verification, that this information is true, accurate and complete.

Signature:  
Title

69. Notifications to the United States, the Commonwealth or the City shall be deemed submitted on the date

they are postmarked and sent by certified mail, return receipt requested.

X. MODIFICATION

70. Except as provided herein or by action of this Court, there shall be no modification of this Consent Decree without written agreement of all of the parties to this Consent Decree and approval by the Court. The United States reserves the right to seek a modification of this Decree to conform to any requirements that become applicable by reason of any revision to the Clean Water Act and/or its implementing regulations.

Y. PUBLIC COMMENT

71. The parties agree and acknowledge that final approval by the United States and entry of this Decree is subject to the requirements of 28 C.F.R. § 50.7, which provides for notice of the lodging of this Consent Decree in the Federal Register, an opportunity for public comment, and consideration of any comments.

Z. CONTINUING JURISDICTION OF THE COURT

72. The Court shall retain jurisdiction to enforce the terms and conditions of this Decree and to resolve disputes arising hereunder as may be necessary or appropriate for the construction or execution of this Decree.

AA. SEVERABILITY

73. The provisions of this Decree shall be severable, and should any provision be declared by a court of competent jurisdiction to be inconsistent with federal law, and therefore unenforceable, the remaining provisions of this Decree shall remain in full force and effect.

BB. TERMINATION

74. This Consent Decree shall terminate as provided in paragraph 14 with respect to the City's obligations arising under each of paragraphs 8 through 12 and related stipulated penalties.

75. This Consent Decree shall terminate on December 31, 1990, with respect to the City's obligations arising under paragraph 15 and any related stipulated penalties.

76. This Consent Decree shall terminate as provided in paragraph 24 with respect to the City's obligations arising under section G and any related stipulated penalties.

77. This Consent Decree shall terminate as provided in paragraph 40 with respect to the City's obligations arising under section I and any related stipulated penalties.

78. With respect to all other obligations and penalties arising under this Consent Decree, this Decree shall terminate:



(a) After payment of all penalties determined to be due and owing hereunder; and,

(b) In accordance with the terms of paragraph 19.

APPROVED AND ENTERED this       day of  
1990.

\_\_\_\_\_  
J. WILLIAM DITTER, JR.  
UNITED STATES DISTRICT JUDGE

WE HEREBY CONSENT to the entry of this Decree.

Entry is subject to the public notice requirements of 28 C.F.R.  
§ 50.7.

FOR THE CITY OF PHILADELPHIA:

FOR THE UNITED STATES OF AMERICA:

\_\_\_\_\_  
JOHN PLONSKI  
Water Commissioner  
City of Philadelphia

\_\_\_\_\_  
RICHARD B. STEWART  
Assistant Attorney General  
Land and Natural Resources Division  
United States Department of Justice

\_\_\_\_\_  
ABBY L. POCEFSKY  
Divisional Deputy City Solicitor  
City of Philadelphia

\_\_\_\_\_  
MICHAEL M. BAYLSON  
United States Attorney  
Eastern District of Pennsylvania

\_\_\_\_\_  
CYNTHIA J. GILES  
Assistant United States Attorney

FOR THE COMMONWEALTH  
OF PENNSYLVANIA:

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WILLIAM HUTCHINS  
United States Department of  
Justice  
Land and Natural Resources  
Division

---

MARTHA BLASBERG  
Assistant Counsel  
Commonwealth of Pennsylvania  
Department of Environmental  
Resources  
Eastern Region Office of Chief  
Counsel

---

JAMES M. STROCK  
Assistant Administrator for  
Enforcement and Compliance  
Monitoring  
U.S. Environmental Protection  
Agency

---

LEON T. GONSHOR  
Commonwealth of Pennsylvania  
Department of Environmental  
Resources  
Regional Director  
Norristown Regional Office

---

MARCIA E. MULKEY  
Regional Counsel  
Environmental Protection Agency  
Region III

---

JED CALLEN  
Assistant Regional Counsel  
U.S. Environmental Protection  
Agency  
Region III

---

DANIEL PALMER  
EPA Office of Enforcement and  
Compliance Monitoring

## ATTACHMENT A

### Biomonitoring Requirements

The City shall initiate a twelve-month biomonitoring program to assess the potential toxicity of the effluent on the aquatic life in the receiving stream. As a minimum, the following requirements shall be met in conducting this program:

1. Toxicity tests shall be conducted on Ceriodaphnia and Fathead Minnow. Twenty-four hour composite samples shall be taken for seven consecutive days each month. Each composite shall be used as daily renewal water for the seven day chronic tests. The chronic toxicity test using both organisms will be conducted simultaneously for the first two (2) months; thereafter toxicity tests shall be conducted on the more sensitive organism only if it is clear that the same species is more sensitive in samples for both months, otherwise testing will continue for both species.
2. For each 24-hour composite sample taken, a chemical analysis of the sample shall be provided for BOD5 and suspended solids.
3. The chemical monitoring required in the NPDES permit for the Southwest Plant shall be conducted on at least one composite sample/month used in the biomonitoring tests.
4. Only chronic tests shall be conducted. The test procedures (including quality assurance) to be used are described in EPA's Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms (EPA 600/4-89/001). The 0.3 dilution factor series shall be used in the toxicity testing.
5. Dilution water shall be obtained from a flow weighted composite of the raw water intakes servicing this facility. If the dilution water shows any toxicity, separate chronic tests shall be conducted from each of the sources of dilution water and the City shall submit a plan, proposing the use of alternative sources of dilution water which are representative of the raw water intakes,

and, upon approval of EPA and DER, shall implement the plan. Should further testing from the alternative sources of dilution water continue to show toxicity, monthly wastewater plant effluent toxicity tests shall be terminated.

6. Separate tests shall be conducted on the treated effluent prior to chlorination and on the chlorinated effluent.
7. Commencement of sample collection per item (1) shall be at a time when there is minimal storm drainage inflow to the collection system. A description of the degree of inflow at the time of sample collection shall be provided.
8. All test results shall be reported, as well as the calculated effect levels as prescribed in EPA methods manual, along with monthly Discharge Monitoring Reports.

#### TRP Requirements

1. If, for the prechlorinated samples, the No Observed Effect Level (NOEL) is less than 12.5% effluent by volume for two consecutive monthly tests or for any three tests within one year, the City shall submit a Toxicity Reduction Plan (TRP) to EPA and the Commonwealth within 90 days of the test result that triggered this requirement.
2. If the NOEL is less than 12.5% effluent by volume for only the chlorinated samples for two consecutive monthly tests or for any three tests within one year, the City shall submit a chlorine minimization plan to EPA and the Commonwealth within 90 days of the test result that triggered the chlorine minimization plan requirement.

## ATTACHMENT B

### APPENDIX 1

#### WORK PLAN - SCOPE OF WORK

##### I. Purpose

The purpose of the independent consultant's work is to identify factors that have limited performance at the Southwest Water Pollution Control Plant and to develop a specific sequenced program for corrective actions to existing unit processes that will result in consistent long-term compliance with the applicable NPDES permit at the Southwest Plant. In addition, through a series of periodic reports, the consultant shall monitor in three areas the City's progress in implementing the proposed program of corrective actions.

##### II. Methodology

The consultant shall evaluate the conditions that exist at the Southwest Plant and develop specific corrective measures for each of the unit processes identified in Attachment 1 to this Request for Proposal, that can be implemented to ensure consistent, long-term compliance with NPDES permits issued for this facility. The consultant shall also periodically evaluate the City's effort to implement these corrective actions.

The consultant shall review factors that may have contributed to non-compliance at Southwest, and shall develop short and long-term corrective measures. A report summarizing the findings of this review will be submitted to the City, EPA and PaDER (the Pennsylvania Department of Environmental Resources) within 100 days

of the notice to proceed. This report will separately address recommendations and sequenced schedules for corrective actions in each of the following areas:

- (1) Remedial Action
- (2) Staffing and;
- (3) Maintenance Management.

Thereafter, the consultant shall prepare quarterly reports that shall evaluate and summarize the City's efforts with respect to implementing the corrective actions identified in the final report in the areas of Remedial Action, Staffing and Maintenance Management.

### III. Evaluations and Recommendations

The tasks identified under this section will provide for a review of the factors that may have contributed to non-compliance at the Southwest Plant along with the development of corrective measures aimed at ensuring consistent, long-term compliance with NPDES permit limitations.

#### Task A - Review Basis of Design

The consultant shall review the original basis of design for the Southwest Water Pollution Control Plant, along with the effect of any additional loadings that may have resulted from the decision to construct centralized sludge handling facilities at this plant. The review shall include all of the unit processes listed on Attachment 1 of this Request for Proposal. A summary of the current basis of design shall be developed. The summary shall include a solids balance for the entire plant.

#### Task B - Preliminary Unit Process Operations Review

The consultant shall review the operating records for each of the unit processes and subsystems identified in Attachment 1. The present operating conditions will be compared to those assumed in the basis of design. Significant variations from the conditions assumed in the basis of design shall be discussed in the consultant's report. This discussion shall address the effect that these variations may have had on the Plant's effluent quality.

The consultant shall prepare a summary identifying the percentage of time each unit or subsystem was available for operation from January of 1984 to present. Factors that precluded the use of equipment shall be identified, and to the extent that these factors and the resulting unavailability of equipment affected plant performance, they should be addressed in Task C.

#### Task C - Factors Affecting Compliance

Using all available information, the consultant will identify and discuss all major factors that adversely affected the performance of the Southwest Plant since January of 1984. To the extent that examination of records or information prior to 1984 is necessary to achieve this goal, such records shall be made available to the independent consultant. Factors that will be considered during the course of this evaluation include:

- I. Wastewater Characteristics
  - A. Sampling, testing and metering procedures
  - B. Influent characteristics
  - C. Peak Flow rates

- D. Industrial wastes - both slug releases and continuous discharges from industry, including sludge from the City's water plants
  - E. Impacts of recycle flows
- II. Design related problems
  - A. Inadequate back-up or redundant units
  - B. Material specifications (e.g. proper type pump or corrosion resistant material)
- III. Plant Operations
  - A. Process control procedures
  - B. Sludge dewatering operations as well as all discharges from the SPDC to Southwest Plant.
- IV. Maintenance Management
  - A. Preventive and corrective maintenance
  - B. Spare parts inventory and procurement system
  - C. Contracting procedures and policy for repairing or replacing down equipment
- V. Labor and Staffing Considerations
  - A. Effect of any deficiency in the number, skills or job classifications of operation and maintenance personnel
  - B. Effect of outside contractors assisting in plant operation
  - C. Effect of union contract and work rules on plant operation and maintenance

**Task D - Review of City's Plans**

The independent consultant shall review the City's Southwest Remedial Action Plan dated December 6, 1988, together with any



amendments to the plan effective as of the date that the independent consultant initiates its work. This document provides an initial plan that details the measures the City believes are necessary to rehabilitate all of the essential unit processes at Southwest.

The independent consultant shall review the City's current staffing plan and the existing maintenance management system to determine if they are sufficient to achieve the objective of consistent, long-term compliance with the NPDES permit applicable to the Southwest Plant utilizing existing unit processes.

The independent consultant shall also review the draft pretreatment permits the City issues to the Belmont and Queen Lane water treatment plants and the City's plan for controlling the release of solids to prevent "pass through or interference" at the Southwest Plant. The consultant shall determine if the plan and applicable permit will prevent these solids from passing through or causing interference with the operation of the Southwest Plant.

#### Task E - Conclusions

Based on an evaluation of the information developed in previous tasks, the consultant shall:

1. Determine whether the corrective actions and schedules outlined in the City's planned corrective actions are realistic and will allow the Southwest Plant to achieve compliance with its NPDES permit in an expeditious manner. If not, the consultant shall develop revisions to the plan, or identify additional remedial actions or schedules it believes would result in compliance.

2. Determine whether the City's labor and staffing plan will provide trained personnel with the correct skill mix to implement the remedial actions along with the day-to-day operation and maintenance functions required for compliance.
3. Determine if the existing maintenance management system is sufficient to ensure the proper operation of all equipment necessary to achieve and maintain consistent, long-term compliance at Southwest.

The consultant shall provide specific corrective measures and sequenced schedules in each of the areas 1-3 identified above. Any additional corrective measures shall be integrated with the City's proposed measures that are acceptable to the consultant.

The independent consultant shall determine if the provisions of the draft pretreatment permits issued to the Belmont and Queen Lane Water Treatment Plants, and the plan for controlling releases of solids from those facilities, are sufficient to prevent pass through or interference violations. If the independent consultant determines that either the plan or the permit is not adequate to prevent pass through or interference, the independent consultant shall recommend revisions to the plan and/or the permits so that they do adequately prevent pass through or interference.

A draft report summarizing the consultant's findings shall be submitted to the City, EPA and PaDER within 120 days of receiving direction to proceed from the City. All preliminary drafts, or portions thereof, shall be distributed concurrently to the City,

EPA and PaDER. Single party review or revisions of any portion of this report shall not be allowed.

The report shall include a specific and detailed listing of the actions that should be taken to improve the performance of the Southwest Plant, including any actions planned by the City that are approved by the independent consultant.

The report shall discuss activities relating to remedial actions, staffing and maintenance management in separate sections. The report shall also contain sequenced schedules setting forth the dates(s) by which specific actions shall be commenced and the date(s) by which the actions shall be completed. Sufficient detail with respect to both the description of the corrective action activity and the schedule for completion of that activity shall be included to provide for subsequent monitoring and enforcement on the basis of an evaluation of whether the City has substantially complied with the consultant's recommendations.

Work items deemed by the consultant to be desirable but not necessary to compliance may be identified in the report but shall not be included in any schedule for implementation that is binding upon the City. The independent consultant shall, to the maximum extent possible group the deadlines and requirements of the report into two or more groups of decreasing relative priority or importance whenever such distinctions can usefully be made and shall consider the relative priority of the tasks in fixing scheduling requirements. The consultant shall be entitled to reevaluate and

recommend reordering of the relative priority or importance of binding final plan requirements and deadlines through the mechanism of the quarterly reports if actual experience in the process of implementing the final plan so dictates. However, any such reevaluation or recommended reordering of priorities will not by itself revise or modify the enforceable schedules of the final report.

The report will include estimates as to the costs of implementing each of the corrective measures, and the effect, if any, on effluent quality of a particular corrective measure.

The City of Philadelphia, EPA and PaDER will review the draft report, and provide written comments back to the consultant within 30 days of receipt. To the extent practicable, the consultant shall address these comments in the final report which shall be issued within 45 days of receipt of the responsive comments. Compliance with the completion date is of the essence. Thirty (30) copies of the draft and final reports shall be provided. The final report shall be filed with the Court and shall become part of the Consent Decree and enforceable there under unless the parties to the decree agree to modify it.

#### IV. Periodic Evaluations

The consultant shall prepare quarterly reports which shall make an independent assessment of the City's efforts to comply with requirements of the final report and shall include, at a minimum:

(a) an assessment of the City's compliance with requirements and

deadlines of the final report<sup>o</sup> that were to have been implemented during that reporting period; (b) an assessment of the City's progress toward meeting the requirements that are to be implemented in the future; and (c) an evaluation of the reasons for any violations reported in the City's Discharge Monitoring Reports. The consultant's quarterly reports shall, to the extent possible, specifically assess the relative importance, within the context of the final plan as a whole, of the City's extent of compliance or noncompliance with each requirement or deadline that was to have been implemented or achieved during the reporting period. The consultant's quarterly reports shall also attempt to assess and evaluate the cause of any such delay or failure to achieve any requirement or deadline, and shall, whenever possible, evaluate the likely consequences and relative importance of any such delay or failure with respect to its effect on the City's ability to achieve and maintain long term compliance at the Southwest Plant. The consultant shall not, however, offer an opinion on the ultimate issue of the City's achievement or failure to achieve substantial compliance with the applicable quarterly requirements and deadlines of the final plan.

The independent consultant<sup>and</sup> is not permitted to consider, in determining necessary actions or the schedule for implementing those actions in either the final report or the quarterly reports, any political, bureaucratic or financial limitations on the City, except those management, legal or cost/benefit considerations that are generally applicable in the management of large municipal wastewater treatment plants.

The quarterly evaluations shall be submitted to EPA, PaDER and the City of Philadelphia by the last day of the month following the completion of each calendar quarter. Reports shall be submitted until, under the terms of the Decree, the City has been in substantial compliance in each of the three areas addressed in the consultant's report for four out of five quarters.

# ATTACHMENT I

## City of Philadelphia Southwest Plant

The following is a list of unit processes and subsystems that will be addressed during the evaluation of the performance of the Southwest Plant:

- I) ✓ Sampling and metering equipment — *20 systems - 2400 to 110000 reporting - often on plant operation*
- II) ✓ Grit removal/incineration system —
- III) ✓ Scum disposal system
- IV) Primary sedimentation tanks 4 of 5
  - A) Scum removal system
  - B) Sludge removal system *1 per tank*
  - C) Collector mechanism *5 long collector bars*  
*2 x 10' collector*
- V) Oxygen supply
- VI) Aeration Tanks *7 of 10*  
*3 M.V. Sl. Tanks + 4 - 10' = 33 T.T.s*
- VII) ✓ Final sedimentation tanks — *19 of 20, 20 w/ 6 long collector, 1 - collector + 1 Return Sl. Pump*
  - A) Scum removal system
  - B) Return sludge pumping system
  - C) Collector mechanism
- VIII) Chlorination facilities
  - A) Chlorinators
  - B) Flash mixers
- IX) Sludge thickeners 7 of 8 24' x 40' *Expt. w/ 2 of 2000 gal. 1 - water pump 1 - waste pump 2 - 10' x 5' Pumps 2 M.V. Sl. Pumps*
- X) Sludge digesters (North and South Banks) 10 of 12 Tanks
  - A) Mixing system } *1 water-changer*  
*Need 1 per tank* *50 heat pumps* — *10' x 10' - 10' x 10' 9' 5"*
  - B) Heating system } *50 Circulate pump*
  - C) Digested sludge pumps
  - D) Overflow and transfer lines
- XI) Sludge Dewatering

A) City owned facilities

B) Contract dewatering operations



## ATTACHMENT II

### Information to be Contained in Proposal

1. Statement of problem - state in succinct terms your understanding of the problem presented in the scope of work. Include a narrative description of the proposed effort and of the product to be delivered.
2. Work Plan - describe in narrative form, your plan for accomplishing the work. Include a project organization and time for each event.
3. Prior Experience - the consultant must include in the proposal the following information:
  - a. prior experience in design of wastewater plants. Sufficient descriptions must be provided to understand the facility size and treatment complexity of the referenced designs.
  - b. prior experience in the actual operation and maintenance of wastewater plants. Experience solely in development of operational and maintenance manuals shall not be included under this item. Sufficient descriptions must be provided to understand facility size and treatment complexity of the referenced facilities, as well as the precise role in which the consultant acted with respect to the development and implementation of the facility's operation and maintenance program and the duration for which the consultant provided these services.
  - c. for the independent consultant and any sub-consultant with more than 10% participation in the contract, a description of the independent consultant's prior dealings with the City of Philadelphia, the Environmental Protection Agency and the Commonwealth of Pennsylvania, listing contracts, dates and general descriptions of work performed.
4. Team Experience - proposals shall include names, qualifications, areas

of expertise and prior experience of all consultant and sub-consultant firms with more than 10% participation in the contract including the project coordinator.

5. Antidiscrimination - The City continues to support the fostering of an environment in which all businesses are free to flourish without the impediments of discrimination and strongly encourages all contractors/vendors to offer opportunities to minority, female and disabled owned businesses to participate in all City contracts on an equitable basis with other firms.
6. Pricing for Work - the fee proposal should include:
  - a. for each item of work listed in the scope of work, the following information must be stated;
    1. the number of hours for each task.
    2. the level of personnel performing these tasks.
    3. the hourly rate of the personnel.
  - b. the overhead rates charged on the direct salary of personnel should be shared.
  - c. any expenses anticipated.

E. General Criteria for Selection

1. All proposals received by the time and date specified will be reviewed by an Evaluation Committee. The Evaluation Committee will base its review on the following items of major importance:
  - a. Specialized experience and technical competence of the firm and the individuals proposed (including joint ventures, associations or professional sub-contracts) in connection with the type of services required and the complexity of the project.
  - a. The familiarity of the individuals proposed for the project with the

types of problems applicable to the design and construction of wastewater treatment projects with specific emphasis on operating and maintaining a wastewater treatment plant particularly one utilizing oxygen activated sludge processes and complex sludge handling applications.

c. The understanding of the purpose and scope of the project and of the work to be performed.

2. In addition to the above items of major importance, the Evaluation Committee will also consider, but not be limited to, the following items:

a. The firm's capacity to perform the work (including any specialized services within the time limitations required, considering the firm's current and planned workload and the experience in operating a plant the size of the Southwest Plant.

b. The firm's familiarity with pertinent federal and state regulations dealing with the NPDES program and wastewater treatment systems.

c. The fee required by the proposer.

3. Special Criteria for Selection

a. Proposals from firms who have had contracts with the City of Philadelphia related to the Wastewater Treatment Expansion Program will not be considered.

b. Depending upon the responses received to this request, the selected firm or key individual(s) working on the project, may be required to agree that it or they will not perform any work, as a prime or subcontractor for up to two years after the termination of its service under this consent decree for:

1. The Philadelphia Water Department, or

2. The Pennsylvania Department of Environmental Resources, Bureau of Water Quality, or
3. The United States Environmental Protection Agency, Water Management Division, Region III.

Within ten (10) days of the date on which this Request for Proposal was transmitted, please provide brief written comments as provided below on how this possible prohibition might affect your willingness to propose to this request. Response to these comments will be transmitted to all recipients of the Request for Proposal within ten (10) days of our receipt of the comments.

- c. Submission date - all proposals must be received by  
at 5:00 PM at the Projects Control Division of the Water Department,  
ARA Tower, 1101 Market Street, Philadelphia, PA 19107.
- d. Pre-proposal submission meeting - a meeting will be held at the  
Southwest Water Pollution Control Plant, 8200 Enterprise Avenue,  
Philadelphia, PA 19153 at 10:00 a.m. to 12:00 p.m., on  
                    , 1990 within 25 days of submission of RFP to allow interested  
firms to review the type and format of historical data, design  
information, etc., which will be necessary to conduct the analysis  
required in this proposal. Attendance is not mandatory.
- e. Comments and Questions - comments and/or questions should be  
directed to:

Bruce Aptowicz  
City of Philadelphia  
Water Department  
ARA Tower, 4th Floor  
1101 Market Street  
Philadelphia, PA 19107  
(215) 592-8205

**APPENDIX L**

**Enforcement Response Plan**

## ENFORCEMENT RESPONSE PLAN

### INTRODUCTION AND PURPOSE

The City of Philadelphia, as the owner and operator of three publicly owned treatment works, has the primary responsibility for enforcing all pretreatment requirements found in the Clean Water Act, the regulations enacted thereto, the City of Philadelphia's Wastewater Control Regulations and the City's wastewater discharge permits. (Hereinafter, all requirements and obligations found in these documents shall be referred to as "pretreatment requirements"). The purpose of this Enforcement Response Plan is to ensure that the City's responsibility is carried out in a consistent, systematic, and timely fashion.

The goals of this Enforcement Response Plan are as follows:

1. to identify all instances of non-compliance with the pretreatment requirements; and
2. to ensure that the industrial user returns to compliance as quickly as possible and to ensure its continuing compliance thereafter; and
3. to penalize industrial users for their violations of the pretreatment requirements; and
4. to deter future violations of the pretreatment requirements; and
5. to recover any expenses incurred by the Water Department (hereinafter referred to as "PWD") attributable to an industrial user's non-compliance.

This Enforcement Response Plan consists of six sections:

## TABLE OF CONTENTS

### 1. SECTION I - IDENTIFYING NON-COMPLIANCE

This section will discuss how non-compliance will be investigated and identified. It will identify those individuals responsible for determining non-compliance and specify time frames for making non-compliance determinations.

### 2. SECTION II - ENFORCEMENT RESPONSES

This section will discuss the appropriate enforcement response for all anticipated types of industrial user pretreatment requirement violations. Individuals responsible for implementing the enforcement response will be identified and time frames for the initiation and completion of the enforcement response established.

### 3. SECTION III - CALCULATION OF FINES

This section will identify those instances of non-compliance which require the PWD to seek fines against the industrial user. Also, the method used to calculate these fines will be addressed. Mitigating factors, which may be considered by the PWD in reducing the fine amount, will then be addressed.

### 4. SECTION IV - COMPLIANCE SCHEDULES

Compliance Agreements will be the standard method of bringing an IU back into compliance. The content of the document will be discussed in this section.

5. SECTION V - AMENDMENTS TO ENFORCEMENT RESPONSE PLAN

6. SECTION VI - SUMMARY OF ENFORCEMENT RESPONSE PLAN  
OBLIGATIONS OF WATER DEPARTMENT PERSONNEL



## SECTION I - IDENTIFYING NON-COMPLIANCE

The permit administrators (PA), along with the manager of the Industrial Waste Unit (Manager) or his designee, have the responsibility of determining non-compliance with all pretreatment requirements. The permit administrators will determine if violations of any pretreatment requirements have occurred by taking the following action:

- A. Review of Baseline Monitoring Reports (BMR), 90 Day Compliance Reports (90DCR), Periodic Compliance Reports (PCR), Spill or Slug Discharge Reports (oral and written), Responses to NOV's, Compliance Schedule Reports, and other Reporting Obligations as Contained in the SIU's Permit

The permit administrator will determine when all reports are due. Failure to make timely reports should be discovered within 10 days after the report's due date and the appropriate enforcement response discussed in Section II. should be initiated.

All reports should be reviewed within 30 days upon receipt to determine if they are complete and whether they indicate any violation of the pretreatment requirements.

- B. Independent Sampling Verification

The permit administrators will independently sample all significant industrial users (SIU) at least once per reporting period. The permit administrators may sample an SIU as many times per year as the Permit Administrator deems necessary in order to determine 1) the potential for pretreatment violations; 2) the frequency, duration, and magnitude

of the violations; 3) whether the SIU is taking remedial actions to correct his violations of the pretreatment requirements; 4) to ensure that the industrial user returns as quickly as possible to full compliance.

All samples shall be taken using standard chain of custody forms.

The Bureau of Laboratory Services will then analyze the sample for all parameters as designated by the permit administrator and transmit its laboratory analysis to the Industrial Waste Unit as follows: (1) for organics analysis: within 60 days upon receipt; (2) for inorganics and conventional pollutants: within 30 days upon receipt. Within 10 days thereafter, the laboratory's report will be reviewed by the permit administrator for discharge violations. All lab results must be reproduced as a file copy to be attached to the chain of custody forms which will be placed in the SIU's active file.

#### C. Inspections

All SIUs shall undergo a comprehensive inspection at least once per calendar year. The permit administrator may conduct as many inspections of an SIU as the permit administrator deems necessary to determine 1) the potential for pretreatment violations, 2) the frequency, duration, and magnitude of the violations, 3) whether the SIU is taking the corrective action as promised or as agreed to in his permit agreement or consent order, and 4) to ensure to the permit administrator's satisfaction that the industrial user is using its best efforts to return to compliance or prevent future non-compliance.

Comprehensive pretreatment inspection forms shall be completed for the annual inspection and may be utilized for each subsequent inspection occurring that year. All completed inspection forms shall be placed in the SIU's active file.

D. Screening Process for Identifying SIUs

The formalized screening process for identifying SIUs is carried out on a continuing basis by the engineering support group of the industrial waste unit and the manager or his designee. This process determines whether industries and/or other non-domestic dischargers should be considered SIUs. This is accomplished through the use of annually-generated industrial directories, water company sales records, sewer sales records or any other information which may become available.

Where information indicates that an IU could be classified as an SIU, then that industry shall undergo a comprehensive inspection prior to a final determination by the engineering support group. A copy of the comprehensive inspection shall be kept on file in the Industrial Waste Unit. From this information, a permit shall be drafted and publicly noticed. A final permit shall then be issued. Upon issuance the manager or his designee shall assign a permit administrator to monitor the permit.

E. Compliance Schedules

Certain industries will be operating under compliance schedules. These compliance schedules will establish milestone dates for actions to ensure compliance with pretreatment requirements (for example, hire an

expert, purchase equipment, have equipment on line, etc.). The compliance schedule will also require the industry to notify the permit administrator at each step as to whether the action has been completed. Compliance schedules may be contained in compliance agreements, administrative orders, consent decrees or the permit.

The permit administrator must carefully monitor these compliance schedules to determine if the action has been completed on a timely basis and whether the proper notifications have been submitted. Violation of any compliance schedule deadline or notification requirement should be identified within 15 days after the milestone or reporting date has passed and the appropriate enforcement response discussed in Section II. should be initiated.

#### F. Records

The permit administrator shall maintain all supporting documentation regarding all pretreatment requirement violations and enforcement activities in the SIU's active file for three years. After three years the records shall be placed in storage.

### SECTION II - ENFORCEMENT RESPONSES

#### A. Enforcement Response Options and Selection

All violations of the pretreatment requirements are instances of non-compliance and will receive a specific enforcement response. Pretreatment requirements are a matter of strict liability. Hence, good faith or lack of negligence on the industrial user's part is no defense to a violation of the pretreatment requirements.

The enforcement responses will range from notices of violation to formal civil litigation and/or termination of service, depending on the severity of the violation. A list of the enforcement responses, along with the personnel who will be implementing these responses, are described in Section II. E.

While similar violations will receive similar enforcement responses, as outlined in Section II. F, there is some inherent discretion within each enforcement response selection. For example, some violations will trigger either administrative action, formal civil litigation or permit revocation. The selection of the specific enforcement response option shall be at the PWD's sole discretion.

B. Significant Non-Compliance (SNC)

Definition of SNC:

While the definition of SNC is similar to the definition contained in 40 CFR Section 403.8(f)(2)(vii), it is in many ways stricter and therefore an IU may more easily find himself in SNC. SNC is defined as any of the following circumstances:

1. Chronic violations

If 33% or more of all samples taken for any single parameter during any six month reporting period demonstrate exceedances, by any amount, of the daily maximum effluent limitation or the monthly average limitation.

2. Technical Review criteria violations

Since the City's definition of chronic violations is twice as stringent as the federal definition, Technical Review

Criteria violations are encompassed in the definition of chronic violations.

3. Any violation of the pretreatment effluent limits that the PWD determines has caused, either alone or in combination with any other discharges, interference or pass through.
  4. Any discharge of a pollutant that has caused imminent endangerment to human health, welfare or the environment or has resulted in the PWD's exercise of its emergency authority.
  5. Violation by 45 days or more of the scheduled date of a compliance schedule milestone for starting construction, completing construction, attaining final compliance or any other milestone event described in the compliance schedule.
- 
6. Failure to provide any required reports such as those listed in Section I.A, including reports on compliance with compliance schedule milestones, within 30 days of the due date.
  7. Failure to report noncompliance accurately.
  8. Any other violation or group of violations that (1) adversely affects the operation or implementation of the local pretreatment program or (2) either alone or in conjunction with any other discharge causes harm to the PWD.

C. Enforcement Response to SNC

Violations of the pretreatment requirements which constitute significant

noncompliance are considered to be the most serious violations and therefore require a strong and immediate enforcement response.

The enforcement response to any instance of significant noncompliance will be as follows:

1. All instances of significant noncompliance will be immediately called to the attention of the manager or his designee.
2. If the SNC is such that imminent harm occurs to the PWD, its employees or the environment, the manager and, if required, the pretreatment attorney will take immediate steps to cease the violation. This action may be either an immediate permit revocation, civil action with injunction or any other steps necessary to prevent the harm from continuing including the immediate termination of water or sewer service.
3. If the SNC is such that it will not cause imminent harm to the PWD, its employees or the environment, then the permit administrators will promptly send the offending IU a notice of violation (as attached in Exhibit B) informing him that he is in significant noncompliance and that formal civil litigation and/or administrative action (which may include the revocation of the IU's wastewater discharge permit or termination of service) will be commenced if the matter cannot be resolved within 30 days from the date of that notice. The pretreatment attorney, at his discretion, should he decide to pursue civil litigation, may attach to this notice of violation a copy of a complaint in equity which will be filed if a resolution does not occur within 30 days. The filing of this complaint or the initia-

tion of administrative action may be delayed at the pretreatment attorney's discretion and only in the following situations: (1) additional information needs to be gathered by the PWD in order to frame the proper allegations and corrective measures asked for in the complaint or administrative order or; (2) where effluent violations result in SNC and the IU has agreed in writing to retain the services of a licensed, professional engineer specializing in wastewater pretreatment to design a pretreatment system. Additional time may be allowed for the engineer to prepare his report so that a compliance schedule can be formulated.

4. The pretreatment attorney, the manager or his designee and/or permit administrator shall be available to meet with the offending industrial user during this 30 day period following the Notice of SNC.
5. If an agreement is reached involving the implementation of a compliance schedule, that compliance schedule shall be attached to, and become part of, the IU's Wastewater Discharge Permit.
6. Fines for SNC are mandatory and will be calculated in accordance with Section III.
7. If the SNC results in the PWD being fined, damages to the PWD or additional treatment costs being incurred by the PWD, then the offending IU shall pay these costs to the PWD.
8. All IUs in SNC at any time during any reporting period will be published in the Philadelphia Inquirer. Publication occurs twice each year after each six month reporting period.



9. In addition to utilizing the actions contained in numbers 1-8 immediately above, nothing shall preclude the pretreatment attorney or the manager or his designee from taking additional actions to ensure an immediate return to compliance.

D. Enforcement Response Options

<u>Abbreviation</u>	<u>Response</u>
AO	Administrative Order
ATC	Additional Treatment Costs (Payment for all additional treatment costs incurred by the PWD as a result of an IU's non compliance with pretreatment requirements)
CL	Civil Litigation (which may include injunctive relief, if appropriate)
CR	Cost Recovery (Payment for all damages incurred by the PWD as a result of an IU's non compliance with pretreatment requirements)
CRIM	Referral for Criminal Prosecution
CS	Compliance Schedule
FD	Fine Discretionary
FM	Fine Mandatory
FR	Fine Recovery (The reimbursement of any fines levied against the PWD by any other agency as a result of an IU's non compliance with pretreatment requirements)
M	Meeting With IU to Resolve Non-Compliance
NOV	Notice of Violation (Attached as Exhibit A)
NOV-S	Notice of Violation - Significant
R	Revocation of Wastewater Discharge Permit
SNC	Enforcement Response to Significant Non-Compliance (Section II.C)
T	Termination of Water and/or Sewer Service

E. Enforcement Response Personnel

<u>Abbreviation</u>	<u>Personnel</u>
ATT.	Pretreatment Attorney
M	Manager, Industrial Waste Unit or Designee
L	Laboratory Personnel
PA	Permit Administrators
PW	Permit Writer

F. Enforcement Responses

1. Effluent Limit Violation

<u>Nature of Violation</u>	<u>Enforcement Response</u>	<u>Personnel</u>
a) Infrequent, no harm to PWD or environment	NOV, FD	PA
b) Recurring, no harm to PWD or environment	level 1: NOV, M, CS, FD level 2: AO, CL	PA M, ATT.
c) Violation causes harm to PWD or environment	SNC	M, ATT.
d) Chronic violations (see Section II. B.1)	SNC	M, ATT.
e) Accidental or slug discharge, isolated no harm	level 1: NOV, FD, ATC level 2: AO, CL	PA M, ATT.
f) Accidental or slug discharge, recurring no harm	level 1: NOV, M, CS, FD, ATC level 2: AO, CL	PA M, ATT.
g) Accidental or slug discharge, harm to PWD	SNC	M, ATT.
h) Interference or pass through	SNC	M, ATT.
i) Any intentional violation without prior notice to and approval by the PWD	level 1: CRIM, FM, AO, CL, FR, CR, ATC level 2: R, T	M, ATT. M, ATT.

2. POTW Verification Sampling Violation

	<u>Nature of Violation</u>	<u>Enforcement Response</u>	<u>Personnel</u>
a)	Effluent limit violation for any parameter	NOV, FD	PA
b)	Resample, violations continue to be detected	level 1: NOV, M, CS, FM level 2: CL, AO	PA M, ATT.

3. Self Monitoring (Sampling) Violation

<u>Nature of Violation</u>	<u>Enforcement Response</u>	<u>Personnel</u>
a) Failure to monitor as frequently as required in permit, (1st violation)	NOV, FD	PA
b) Recurring failure to monitor as required in permit after notification by PWD	level 1: NOV, M, FM level 2: AO, CL, R	PA M, ATT.
c) Incomplete monitoring, monitoring fails to test for all permit parameters, 1st violation	NOV, FD	PA
d) Incomplete monitoring, monitoring fails to test for all permit parameters, recurring violations	level 1: NOV, FM, M level 2: AO, CL, R	PA M, ATT.
e) Failure to monitor in accordance with the procedures contained in the permit, 1st violation	NOV, FD	PA
f) Failure to monitor in accordance with procedures contained in the permit, recurring	level 1: NOV, FM, M level 2: AO, CL, R	PA M, ATT.

4. Reporting Violations

<u>Nature of Violation</u>	<u>Enforcement Response</u>	<u>Personnel</u>
a) Report is between 5 and 30 days late, isolated event	NOV, FD	PA
b) Report is between 5 and 30 days late, recurring events	NOV, M, FM	PA
c) Report is over 30 days late	SNC	M, ATT.
d) Report is improperly signed or certified (1st violation)	NOV, FD	PA
e) Report is improperly signed or certified after notice by FWD	NOV, M, FM	PA
f) Failure to give one hour telephone notice to report accidental discharge, (spill or slug load) no harm (1st violation)	NOV, FD	PA
g) Failure to give one hour telephone notice to report accidental discharge, spill or slug load, no harm, recurring	level 1: NOV, M, FM, level 2: AO	PA M
h) Failure to give one hour telephone notice to report accidental discharge, (spill or slug load) (results in harm)	SNC	M, ATT.
i) Failure to submit written report within five days after accidental discharge (no harm) 1st violation	NOV, FD	PA

Nature of ViolationEnforcement ResponsePersonnel

- |    |   |  |               |
|----|---|--|---------------|
| j) | Failure to submit<br>written report within<br>five days after<br>accidental discharge,<br>(recurring)   | level 1: NOV, M, FM<br>level 2: AO     | PA<br>M       |
| k) | Failure to notify<br>City within 24 hours<br>of becoming aware of<br>a sample which violates<br>the industrial users<br>effluent limits and<br>to report the next<br>sample that shows a<br>return to compliance<br>(1st violation) | NOV, FD                                | PA            |
| l) | Failure to notify the<br>City within 24 hours<br>of becoming aware of<br>a sample which violates<br>the industrial users<br>effluent limits and<br>to report the next<br>sample that shows a<br>return to compliance<br>(recurring) | level 1: NOV, M, FM<br>level 2: AO, CL | PA<br>M, ATT. |
| m) | Failure to report<br>non-compliance accurately  | SNC, CRIM                              | M, ATT.       |



5. Compliance Schedule Violations<sup>1</sup>

	<u>Nature of Violation</u>	<u>Enforcement Response</u>	<u>Personnel</u>
a)	Missed milestone date by less than 45 days	NOV, FD	PA
b)	Missed milestone date by 45 days or more <sup>2</sup>	SNC	M, ATT.
c)	Failure to give notice as required in the compliance schedule (initial violation)	NOV, FD	PA
d)	Failure to give notice as required in the compliance schedule, recurring	level 1: NOV, M, FM level 2: AO	PA M

---

<sup>1</sup> Penalties for the violation of compliance schedule milestone dates may be contained in the compliance schedule itself, administrative order or consent decree. Where these penalty provisions exist, penalties for those violations will be levied in accordance with those terms and conditions. If no such provisions exist then the penalties will be levied in accordance with the above enforcement responses.

<sup>2</sup> If an IU wishes to avoid being in SNC it must notify the PWD in writing prior to being 45 days late and must explain its reasons for the delay. If the City believes that the delay is caused by factors completely outside of the control of the industrial user then the City may extend the milestone deadline. Such extension would therefore prevent the IU from violating its milestone date and therefore the IU would not be in SNC. The City will not grant extensions unless the IU clearly establishes its entitlement in a timely manner.

6. Unauthorized Discharges (No Permit)

<u>Nature of Violation</u>	<u>Enforcement Response</u>	<u>Personnel</u>
a) IU unaware of requirement, no harm to PWD or environment	NOV, FD	PW
b) IU unaware of requirement, harm to PWD or environment	SNC	M, ATT.
c) Failure to apply for a permit continues after notice by the PWD	level 1: NOV, FM, level 2: CL, T	PW M, ATT.
d) IU has failed to renew its wastewater discharge permit	level 1: NOV, FD level 2: CL, T	PW M, ATT.

7. Other Permit Violations

<u>Nature of Violation</u>	<u>Enforcement Response</u>	<u>Personnel</u>
a) Waste streams are diluted in lieu of treatment, unintentional	level 1: NOV, FD, CS level 2: AO, CL, R, FM	PA M, ATT.
b) Waste streams are diluted in lieu of treatment, intentional	NOV, FM, CL, CRIM	M, ATT.
c) Inadequate record keeping, initial	NOV, FD	PA
d) Inadequate record keeping, recurring, after notice by PWD	level 1: NOV, FM, M level 2: AO, R	PA M, ATT.
e) Failure to mitigate non-compliance initial	NOV, FD, ATC, CR	PA
f) Failure to mitigate non-compliance after notice by PWD	level 1: NOV, FM, M, ATC, CR level 2: AO, CL, R	PA M, ATT.
g) Failure to allow inspector to inspect premises or to provide records as requested	level 1: NOV, FM, M, level 2: AO, CL, R	PA or FW M, ATT.
h) Failure to notify PWD in advance of any substantial change in volume or character of pollutants including any change in its hazardous waste notification.	NOV, FD	PA

G. Time Frame for Responses

1. Initial Enforcement Response

- a) Late Reports - Enforcement response should be initiated within 5 days after determination that report is late.
- b) Report Review - After a report has been reviewed and any non-SNC violation determined, the appropriate response shall be initiated within 5 days.
- c) All other non-SNC violations - Enforcement response of the pretreatment standards should be initiated within 5 days after discovery by PA of violation.

2. Escalating Enforcement Response (level 2)

The level 2 enforcement response should be initiated within 30 days after it appears that the level 1 response is ineffective in correcting the violation.

3. Significant Non Compliance

Enforcement responses should be initiated according to the time frames established in Section II.C.

H. Additional Responses

The enforcement responses contained in section II.F. are general guidelines and do not limit or restrict the PWD's ability to take

any other or more severe enforcement actions where the PWD in its sole discretion, deems it appropriate.

### SECTION III. CALCULATION OF FINES

- A. Section II. F., Enforcement Response, states those violations for which fines are mandatory or discretionary.
- B. For those violations for which fines are discretionary, we will consider the following factors in determining whether fines should be assessed:
  - 1. Reasons for non-compliance.
  - 2. Compliance history - The PWD will examine the IU's history of compliance for the specific violation as well as for all other permit terms and conditions.
  - 3. Good faith compliance efforts - Good faith compliance efforts consist of the following actions:
    - a) whether the IU has responded to the NOV within 15 days
    - b) the actions the IU has taken or will take to ensure a return to compliance
    - c) the timeliness of these corrective actions
- C. Where the violation of a pretreatment standard requires a fine, either where a fine is mandatory or the PWD has determined that a fine is appropriate pursuant to Section II. F. and III. B., the fine shall be \$300 per violation per day. The \$300 per violation per day fine is subject to increase to the maximum amount as allowed by law.

D. Calculation of maximum fines

The maximum amount of fines for pretreatment violations will be calculated as follows:

1. Fines for violations of the daily maximum effluent limit shall be \$300 per day for each and every parameter violated.
2. Violations of the monthly average effluent for any parameter shall be considered as violations for each and every day within that month and therefore a \$300 per day fine for all days in that month will be assessed.
3. For each day any report is late a \$300 fine will be assessed.
4. If an IU fails to self monitor then a fine of \$300 will be assessed for each parameter that the IU fails to monitor.
5. Accidental Spill. A \$300 fine will be assessed for each of the following: 1) the accidental spill, 2) the failure to give us one hour notice, if appropriate, and 3) the failure to follow-up with a five day notice of the spill, if appropriate.
6. All other violations will be assessed a \$300 penalty per day for each day that the violation continues.

E. Reduction of Maximum Fines

The calculations in Section III. D. 1. through 6. are the maximum fines which can be assessed against an IU for violating the pretreatment requirements.

The PWD has the discretion to reduce the maximum fine in accordance with the general guidelines listed immediately below and contained in this section. In determining whether a fine reduction is warranted, the PWD will consider the following factors ("factors"):

1. Reasons for violation
2. Magnitude of violation
3. Duration of violation
4. Effect of violation on receiving water or sludge
5. Effect of violation on PWD or its employees
6. Compliance history of industrial user
7. IU's response to violation. How quickly IU has responded to NOV and timeliness of its remedial actions

Where the PWD has determined that a reduction in the maximum fine is warranted, the PWD shall use the following general guidelines in reducing the fine:

1. First, the maximum fine shall always be calculated. The maximum fine is calculated in accordance with III. D. 1. through 6.
2. A "reduced fine amount" is next calculated. The reduced fine shall be the fine which the IU must immediately pay to the PWD once a compliance agreement or consent order is finalized. The reduced fine is calculated as follows:
  - a. All daily effluent violations are totaled and multiplied by \$300 per violation per day. No reduction occurs from this figure.

- a. Each monthly average violation, which normally would be calculated as 30 days of violations, may be treated as low as one day of violation if the PWD determines that such reduction is warranted given the factors previously outlined in this section.
- c. Similarly, reporting violations are fined at \$300 per day for each day late. However, they may be reduced to as low as one day of violation if the PWD determines that such reduction is warranted given the factors previously outlined in this section.
- d. All violations of self monitoring are assessed at \$300 per parameter not monitored. No reduction occurs from this figure.
- e. The reduced fine will be the sum of a. through d.
- f. In certain situations the reduced fine may be further reduced by up to 30% if all of the following conditions are met.
  - (1) The PWD is convinced that the IU is using its very best efforts to immediately return to compliance and;
  - (2) The PWD is convinced that the violation will not recur and;
  - (3) The PWD determines that this additional reduction is warranted under the factors previously discussed in this section.

#### SECTION IV - COMPLIANCE SCHEDULES

##### A. Introduction

Many violations of the pretreatment requirements will require that a Compliance Schedule be entered into. This Compliance Schedule will have



as its major goal the establishment of milestone dates for the completion of certain specified events leading the IU to full compliance with all pretreatment requirements as quickly as possible.

B. Compliance Schedules

1. While compliance schedules may be appropriate in other instances of non-compliance, they will most often be used to correct effluent limit violations. While the precise milestone events may differ from case to case, as a general rule they should, at a minimum, contain the following events with a corresponding milestone completion date:

- a. Hire a licensed professional engineer specializing in wastewater pretreatment to evaluate the industrial user's processes and to develop a pretreatment system designed to bring the IU into full compliance with all pretreatment requirements.
- b. Licensed professional engineer must submit a detailed plan of the proposed pretreatment system to the City for its review. The plan must state in detail all steps necessary for the IU to achieve full compliance with all pretreatment requirements.
- c. Purchase all necessary pretreatment equipment. Along with the IU's standard compliance notification the IU must attach copies of the purchase orders for the equipment.
- d. Accept delivery of the pretreatment equipment.
- e. Install, debug and test the pretreatment equipment and have it on line and in operation.

f. Test period - maintain a 95% compliance rate for a period of 90 consecutive days as to all pretreatment requirements.

2. Within five working days after the completion date for each milestone event the IU must notify the PWD in writing as to whether the event has been completed. If the event was not completed the notice must state the reasons for the failure, the expected completion date of the event and the steps to be taken to avoid further delays.

This notice does not excuse the IU for its failure to meet the milestone dates.

#### SECTION V - AMENDMENTS TO ENFORCEMENT RESPONSE PLAN

The Enforcement Response Guide may be amended at any time and for any

~~reason at the sole discretion of the PWD.~~

#### SECTION VI - SUMMARY OF ENFORCEMENT RESPONSE PLAN OBLIGATIONS OF WATER DEPARTMENT PERSONNEL

This section briefly summarizes the obligations of water department personnel found in Sections I through V of the Enforcement Response Plan.

<u>Obligation</u>	<u>Time Frame</u>	<u>Personnel</u>
I. <u>Reports</u>		
A. determine timeliness of all reports	w/in 10 days of due dates	PA
B. review all reports	w/in 30 days of receipt	PA
C. initiate appropriate enforcement response for all non-SNC violations	a) w/in 5 days after timeliness determination has been made b) w/in 5 days after report has been reviewed	PA PA

D. initiate level 2 enforcement if necessary	w/in 30 days after level 1 has failed	M, ATT.
E. initiate appropriate enforcement response for any SNC violation	immediately upon discovery of violation in accordance with Section II(c) of the Enforcement Response Plan	M, ATT.
 <u>II. Independent Sampling</u>		
A. sample all SIU's	at least once per reporting period	PA
 <u>III. Analyze Samples</u>		
A. organics	w/in 60 days of receipt	Lab
B. inorganics & conventional pollutants	w/in 30 days of receipt	Lab
C. review lab results	w/in 10 days of receipt from lab	PA
 <u>IV. Effluent Limits</u>		
A. initiate appropriate enforcement response for any effluent limit violation	a) w/in 5 days of receipt of lab results b) if SNC, in accordance with Section II(c)	PA M, ATT.
B. initiate level 2 enforcement if necessary	w/in 30 days after level 1 enforcement has failed	M, ATT.
 <u>V. IU Self-Monitoring</u>		
A. initiate appropriate enforcement response for any self-monitoring violation	w/in 5 days of discovery of violation	PA
B. initiate level 2 enforcement if necessary	w/in 30 days after level 1 has failed	M, ATT.

VI. Inspections

- |                                  |   |    |
|----------------------------------|---|----|
| A. thoroughly inspect all SIU's  | at least once per calendar year                             | PA |
| B. initiate enforcement response | w/in 5 days after discovery of violation through inspection | PA |

VII. Compliance Schedules

- |  |   |         |
|--|---|---------|
| A. initiate appropriate enforcement response for any missed milestone dates    | w/in 15 days of any missed milestone date | PA      |
| B. initiate SNC enforcement if necessary for continuing missed milestone dates | 45 days after any missed milestone date   | M, ATT. |

VIII. All Other Permit Violations

- |  |   |         |
|--|---|---------|
| A. initiate appropriate enforcement response | a) w/in 5 days of discovery of violation          | PA, M   |
|  | b) If SNC, in accordance with Section II(c)       | M, ATT. |
| B. initiate level 2 enforcement if necessary | w/in 30 days after level 1 enforcement has failed | M, ATT. |



# CITY OF PHILADELPHIA

DEPARTMENT OF  
WATER AND POWER  
OFFICE OF THE PERMIT ADMINISTRATOR

JOHN P. VINSKI  
WATER AND POWER

Industrial User Name

DATE

Address

\_\_\_\_\_  
\_\_\_\_\_

## NOTICE OF VIOLATION

Dear \_\_\_\_\_:

THIS LETTER SERVES AS FORMAL NOTICE THAT YOU ARE IN VIOLATION OF THE TERMS AND CONDITIONS OF YOUR WASTEWATER DISCHARGE PERMIT. THE SPECIFIC VIOLATIONS ARE DESCRIBED ON PAGE TWO OF THIS NOTICE.

THEREFORE YOU MUST TAKE THE FOLLOWING ACTION:

Pursuant to Part V(A) of your Wastewater Discharge Permit your written response report to this notice of violation is due within 15 days from receipt of this notice. Your response report must state the reasons for your violation, all actions that you have taken to return to compliance and when full compliance will be achieved.

Failure to submit your written response report within 15 days will result in further enforcement action and will subject you to fines for your noncompliance.

This notice does not waive, either expressly or by implication, the power of the City of Philadelphia to impose penalties for any and all violations of permit conditions prior to or after the issuance of this notice of the conditions upon which this notice is based. This notice shall not be construed so as to waive or impair any rights of the City of Philadelphia, heretofore or hereafter existing.

Please contact me at \_\_\_\_\_ if you have any questions regarding your violations or your obligations to provide a written response report.

Sincerely,

\_\_\_\_\_  
PERMIT ADMINISTRATOR

EXHIBIT A

"AN EQUAL OPPORTUNITY EMPLOYER"



# CITY OF PHILADELPHIA

Office of the City Engineer  
Department of Public Works  
City of Philadelphia

JOHN PLYNSKI  
Water Compliance Unit

Industrial User Name \_\_\_\_\_  
Address \_\_\_\_\_  
\_\_\_\_\_

DATE \_\_\_\_\_

## NOTICE OF SIGNIFICANT NON COMPLIANCE

Dear \_\_\_\_\_ :

THIS LETTER SERVES AS FORMAL NOTICE THAT YOU ARE IN SIGNIFICANT NON COMPLIANCE WITH THE TERMS AND CONDITIONS OF YOUR WASTEWATER DISCHARGE PERMIT. THE SPECIFIC VIOLATIONS ARE DESCRIBED ON PAGE TWO OF THIS NOTICE.

### THEREFORE YOU MUST TAKE THE FOLLOWING ACTIONS:

- (1) Pursuant to Part V(A) of your Wastewater Discharge Permit, you must file your written response report to this Notice within 15 days. Your response report must state the reasons for your violation, all actions you have taken to return to compliance and state when a return to full compliance will be achieved.
- (2) If the significant non compliance cannot be fully resolved within 30 days you must enter into an agreement with the City within 30 days from this Notice, setting forth the terms and conditions for your return to full compliance. If an agreement cannot be reached within 30 days, legal and/or administrative action will be commenced.

Fines are mandatory for all instances of Significant Non Compliance. The longer you delay in returning to compliance the greater these fines will become.

Call me immediately upon receipt of this letter if you wish to avoid further enforcement action and greater fines.

Sincerely,

THOMAS HEALEY  
Manager, Industrial Waste Unit

CITY OF PHILADELPHIA

IN RE:

DATE:

DESCRIPTION OF VIOLATIONS

YOU ARE IN VIOLATION OF THE FOLLOWING TERMS  
AND CONDITIONS OF YOUR WASTEWATER DISCHARGE  
PERMIT:

I. ☐ EFFLUENT VIOLATION

DATE	PARAMETER	VALUE	UQM	ONE DAY MAX.
------	-----------	-------	-----	--------------

II. ☐ ACCIDENTAL OR SLUG DISCHARGE

COMMENTS:

III. ☐ INTERFERENCE OR PASS THROUGH

COMMENTS:

IV.

☐

REPORTING VIOLATIONS

COMMENTS:

V.

☐

COMPLIANCE SCHEDULE VIOLATIONS

COMMENTS:

VI.

☐

OTHER VIOLATIONS

COMMENTS:



**APPENDIX M**

**Center City Project Inventory - 1992**

PHILADELPHIA CITY PLANNING COMMISSION

Center City Project Inventory  
Proposed Projects

Address	900 Block Chestnut Street
Owner	PMA, Jefferson, Zuritsky (check) & I Goldberg
Proposed Use	Office and retail
Zoning	C-5
Developer Interest	As above
Potential City Participation	
Potential Planning Commission Action	
Remarks	Demolition as of 12/91, except Goldberg's.

1000 Market Street

Address	1000 Block Market Street
Owner	Various owners
Proposed Use	
Zoning	C-5
Developer Interest	
Potential City Participation	
Potential Planning Commission Action	
Remarks	Development is more potential than proposed

1201 Filbert Street

Address	1201 Filbert Street
Owner	Parkway (Joseph Zuritsky)
Proposed Use	
Zoning	C-5
Developer Interest	Zuritsky
Potential City Participation	
Potential Planning Commission Action	
Remarks	Project to be done in two phases: 1)garage; 2) hotel

1301 Market Street

Address	1301 Market Street
Owner	Rappaport
Proposed Use	
Zoning	C-5
Developer Interest	Zuritsky
Potential City Participation	
Potential Planning Commission Action	
Remarks	

1401 Chestnut Street

Address	1401 Chestnut Street
Owner	Mellon Bank, et al
Proposed Use	Office, commercial
Zoning	C-5
Developer Interest	Berwyn Reality
Potential City Participation	
Potential Planning Commission Action	
Remarks	

1508-12 Walnut Street

Address	1508-12 Walnut Street
Owner	Ralph Heller
Proposed Use	Office, commercial
Zoning	C-5
Developer Interest	
Potential City Participation	
Potential Planning Commission Action	
Remarks	

1600 Vine Street

Address	1600 Vine Street
Owner	Franklin Town Corporation
Proposed Use	Office
Zoning	C-5
Developer Interest	
Potential City Participation	
Potential Planning Commission Action	
Remarks	Present landscaped area

1601 Vine Street

Address	1601 Vine Street
Owner	Franklin Town Corporation
Proposed Use	Mixed use
Zoning	C-5
Developer Interest	
Potential City Participation	Franklin Town Urban Renewal Area
Potential Planning Commission Action	
Remarks	Recent rezoning from C-4

1701 Market Street

Address 1701 Market Street

Owner Richard I. Rubin

Proposed Use

Zoning C-5

Developer Interest

Potential City Participation

Potential Planning Commission Action

Remarks

1701 Vine Street

Address 1701 Vine Street

Owner Klein Realty

Proposed Use Mixed use - hotel/apartment/office

Zoning C-5

Developer Interest

Potential City Participation Franklin Town Urban Renewal Area

Potential Planning Commission Action

Remarks Recent zoning change from C-4

1800 Arch Street

Address	1800 Arch Street
Owner	Bell Atlantic
Proposed Use	Office, commercial
Zoning	C-4

Developer Interest

Potential City Participation

Potential Planning Commission Action

Remarks	Recent zoning change from C-4
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1919 Market Street

Address	1919 Market Street
Owner	Linpro
Proposed Use	Office
Zoning	C-5

Developer Interest

Potential City Participation

Potential Planning Commission Action

Remarks	W3MH architects Dallas, 2nd phase
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2000 Arch Street

Address SW corner of 20th and Arch Streets

Owner

Proposed Use

Zoning C-4

Developer Interest

Potential City Participation

Potential Planning Commission Action

Remarks

2101 Market Street

Address 2101 Market Street

Owner Maguire Thomas

Proposed Use Office, commercial

Zoning C-5

Developer Interest

Potential City Participation

Potential Planning Commission Action

Remarks



2201 Market Street

Address	2201 Market Street
Owner	PECO
Proposed Use	1
Zoning	C-5
Developer Interest	
Potential City Participation	
Potential Planning Commission Action	
Remarks	

2301 Race Street

Address	N.W. Corner 23rd and Race
Owner	Philly Associates & Co. L.P. & CSX Transportation, Inc.
Proposed Use	Residential
Zoning	RC-4
Developer Interest	A number of residential plans have been presented for discussion
Potential City Participation	
Potential Planning Commission Action	
Remarks	

ACME Street

Address	1501 Arch Street
Owner	Acme
Proposed Use	
Zoning	C-5
Developer Interest	Park Tower
Potential City Participation	
Potential Planning Commission Action	
Remarks	Development proposal withdrawn

Afro-American Museum

Address	701 Arch Street
Owner	Afro-American Museum
Proposed Use	Museum expansion and office development
Zoning	L-4
Developer Interest	Afro-American Museum
Potential City Participation	
Potential Planning Commission Action	Zoning change support to C-4
Remarks	

City Hall Annex

Address	13th and Filbert Streets
Owner	Kusmersky
Proposed Use	Office rehab
Zoning	C-5
Developer Interest	Kusmersky
Potential City Participation	
Potential Planning Commission Action	
Remarks	

Corestates Headquarters

Address	800 Market Street
Owner	JMB/Urban Investors/Corestates
Proposed Use	Mixed use office and retail in two towers
Zoning	C-5
Developer Interest	As above
Potential City Participation	Close Ranstead Street
Potential Planning Commission Action	Support
Remarks	

Federal Detention Center

Address	700 Arch Street
Owner	LJK Incorporated
Proposed Use	Federal Prison
Zoning	C-5
Developer Interest	U.S. Government
Potential City Participation	
Potential Planning Commission Action	
Remarks	700 Beds

Forrest City Dillon

Address	NE corner Franklin Town Blvd. and Callowhill Street
Owner	Forest City Dillon
Proposed Use	+/- 300 apartment units
Zoning	RC-4
Developer Interest	Forest City Dillon
Potential City Participation	Franklin Town Urban Renewal Area
Potential Planning Commission Action	
Remarks	Phase Two/One East Franklin Town Blvd.

Address	21st and Hamilton Streets
Owner	Pacetti
Proposed Use	Apartment/Hotel
Zoning	R-14
Developer Interest	Pacetti, not pursuing project
Potential City Participation	
Potential Planning Commission Action	Has supported development in the past
Remarks	Overbuild of R.R. tracks behind Rodin Museum

Address	1900 Hamilton Street
Owner	Redevelopment Authority
Proposed Use	Elderly apartment - +/- 300 units
Zoning	RC-4
Developer Interest	Forest City Dillon
Potential City Participation	Franklin Town Urban Renewal area
Potential Planning Commission Action	
Remarks	

Franklin Town Site

Address	NW corner Franklin Town Blvd. and Callowhill Street
Owner	Franklin Town Corporation
Proposed Use	Retail
Zoning	RC-4
Developer Interest	
Potential City Participation	Franklin Town Urban Renewal Area
Potential Planning Commission Action	Requested by Franklin Town to rezone to C-4.
Remarks	

Free Library Site

Address	1901 Callowhill Street
Owner	Free Library, et al
Proposed Use	Combined library expansion and private office
Zoning	C-15
Developer Interest	
Potential City Participation	
Potential Planning Commission Action	Rezoning and request by PIDC to reconsider Parkway controls
Remarks	

Gallery I Air Rights

Address	9th and Market Streets
Owner	Redevelopment Authority
Proposed Use	Hotel
Zoning	C-5
Developer Interest	None as of 12/91
Potential City Participation	
Potential Planning Commission Action	
Remarks	

Gallery II Air Rights

Address	1001 Market Street
Owner	Redevelopment Authority
Proposed Use	Twin office towers
Zoning	C-5
Developer Interest	
Potential City Participation	Gallery Urban Renewal Project
Potential Planning Commission Action	
Remarks	No developer as of 12/91

Girard Estate

Address	1100 Market Street
Owner	Philadelphia Board of City Trusts
Proposed Use	Mixed use office/retail
Zoning	C-5

Developer Interest

Potential City Participation

Potential Planning Commission Action

Remarks

GSA Office Campus

Address	30th Street and Walnut Street
Owner	Post Office
Proposed Use	Regional headquarters of G.S.A. office complex

Zoning	Industrial Development
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Developer Interest	General Services Administration Linpro
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Potential City Participation

Potential Planning Commission Action

Remarks



Justice Center

Address	1300 Arch Street
Owner	City of Philadelphia
Proposed Use	Court facility
Zoning	C-5
Developer Interest	City of Philadelphia
Potential City Participation	
Potential Planning Commission Action	
Remarks	

Meridian Tower

Address	Penn Center Square
Owner	
Proposed Use	Office, commercial
Zoning	C-5
Developer Interest	
Potential City Participation	
Potential Planning Commission Action	
Remarks	

Museum Towers II

Address	1800 Spring Garden
Owner	Adwin Realty and Hertzfeld
Proposed Use	Mixed used apartment and supermarket/retail
Zoning	RC-4
Developer Interest	Adwin Realty and Hertzfeld
Potential City Participation	Franklin Town Urban Renewal area
Potential Planning Commission Action	
Remarks	Phase Two

Penn Center West

Address	North side JFK - from 20th Street to Schuylkill River
Owner	Penn Center West Associated (Leonard Fruchter)
Proposed Use	Mixed use, office and retail
Zoning	C-5
Developer Interest	Leonard Fruchter
Potential City Participation	
Potential Planning Commission Action	
Remarks	Part of Atlantic Center proposal which includes development at 30th Street Station

Philadelphia Orchestra Hall

Address	Broad and Spruce Streets
Owner	Philadelphia Orchestra
Proposed Use	Orchestra Hall performance center
Zoning	C-5
Developer Interest	As above
Potential City Participation	
Potential Planning Commission Action	
Remarks	Proposal stalled pending further funding, Avenue of the Arts

PMA Site

Address	SE corner 10th and Market Streets
Owner	Pennsylvania Manufacturers' Association
Proposed Use	Potential office/retail
Zoning	C-5
Developer Interest	
Potential City Participation	
Potential Planning Commission Action	
Remarks	

Police Operation Building Site

Address	SW corner 7th and Cherry Streets
Owner	Redevelopment Authority
Proposed Use	
Zoning	C-4
Developer Interest	City of Philadelphia
Potential City Participation	
Potential Planning Commission Action	
Remarks	

Address	NE corner 9th and Arch Streets
Owner	Redevelopment Authority
Proposed Use	Asian trade center - office/retail
Zoning	C-4
Developer Interest	
Potential City Participation	
Potential Planning Commission Action	
Remarks	

Police Station Site

Address	2001 Pennsylvania Avenue
Owner	City of Philadelphia
Proposed Use	Relocation of station to allow for expanded private development
Zoning	R-15
Developer Interest	
Potential City Participation	As above and closing Pennsylvania Avenue
Potential Planning Commission Action	
Remarks	This action would be coordinated with private development on Youth Study Center site

Address	NE corner 9th and Vine Streets
Owner	City of Philadelphia, et al
Proposed Use	
Zoning	L-4
Developer Interest	
Potential City Participation	
Potential Planning Commission Action	
Remarks	In the now expired (8.90) Franklin Square Renewal Area. North of the new Vine St. R.O.W.

Address	NE corner 8th and Vine Streets
Owner	PennDOT
Proposed Use	
Zoning	L-4
Developer Interest	
Potential City Participation	
Potential Planning Commission Action	
Remarks	In the area taken for Vine Street Expressway

Walnut Towers

Address	800 Walnut Street
Owner	Parkway Corporation
Proposed Use	27,000 square feet of retail and 550 apartment units in two towers
Zoning	C-4
Developer Interest	Parkway Corporation/Joe Zuritsky
Potential City Participation	Washington Square West Urban Renewal Area
Potential Planning Commission Action	
Remarks	Phase II of an existing garage and retail spaces

Wilma Theatre

Address	Broad and Spruce Streets
Owner	Labro (Norman Wolgin)
Proposed Use	Theater/parking/hotel expansion
Zoning	C-5
Developer Interest	As above
Potential City Participation	
Potential Planning Commission Action	
Remarks	To include "Wilma Theatre"

Youth Study Center Site

Address	2000 Pennsylvania Avenue
Owner	Fairmount Park and City of Philadelphia
Proposed Use	Residential/Hotel
Zoning	R-15
Developer Interest	
Potential City Participation	Relocation of Y.S.C. and street closings
Potential Planning Commission Action	
Remarks	To be coordinated with relocation of police station - 2001 Pennsylvania Avenue

Abbott's Square Phase II

Address

Owner

Proposed Use

Zoning

Developer Interest

Potential City Participation

Potential Planning Commission Action

Remarks

New Market

Address

Owner

Proposed Use

Zoning

Developer Interest

Potential City Participation

Potential Planning Commission Action

Remarks



Penn's Landing

Address

Owner

Proposed Use

Zoning

Developer Interest

Potential City Participation

Potential Planning Commission Action

Remarks

Pier's 9 and 11 North

Address

Owner

Proposed Use

Zoning

Developer Interest

Potential City Participation

Potential Planning Commission Action

Remarks

Jayne Estate

Address

Owner

Proposed Use

Zoning

Developer Interest

Potential City Participation

Potential Planning Commission Action

Remarks

Eunice Lazin

Address

Owner

Proposed Use

Zoning

Developer Interest

Potential City Participation

Potential Planning Commission Action

Remarks

**Philadelphia Trade Center**

Address

Owner

Proposed Use

Zoning

Developer Interest

Potential City Participation

Potential Planning Commission Action

Remarks

**Pier 24 North**

Address

Owner

Proposed Use

Zoning

Developer Interest

Potential City Participation

Potential Planning Commission Action

Remarks

Pier 25 North

Address

Owner

Proposed Use

Zoning

Developer Interest

Potential City Participation

Potential Planning Commission Action

Remarks

Parking Authority Impoundment Lot

Address

Owner

Proposed Use

Zoning

Developer Interest

Potential City Participation

Potential Planning Commission Action

Remarks

Spring Garden Incinerator

Address

Owner

Proposed Use

Zoning

Developer Interest

Potential City Participation

Potential Planning Commission Action

Remarks

Chinatown Hotel Expansion

Address

Owner

Proposed Use

Zoning

Developer Interest

Potential City Participation

Potential Planning Commission Action

Remarks

Spectrum II

Address	3601 S. Broad Street
Owner	Spectacor New Arena Partnership
Proposed Use	Sports/Entertainment
Zoning	Sports District
Developer Interest	Owner
Potential City Participation	None
Potential Planning Commission Action	Support
Remarks	Lease signed by City Council 7/3/91

**APPENDIX I**

**Financial Statements of the Water Fund  
for Fiscal Years Ended June 30, 1990 and 1989**

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CITY OF PHILADELPHIA- WATER DEPARTMENT  
Adminitrating the Water Fund

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# CITY OF PHILADELPHIA- WATER DEPARTMENT

## BALANCE SHEETS, JUNE 30, 1990 AND 1989

	<u>1990</u>	<u>1989</u>
<u>ASSETS</u>		
Current Assets:		
Cash on Deposit and on Hand	\$30,000	
Equity in Pooled Cash and Investments	4,400,975	\$51,953,109
Due from Other Funds		
Accounts Receivable:		
Utility Charges	103,502,350	94,013,381
Other	24,188,894	21,830,729
Allowance for Doubtful Accounts	(55,909,510)	(12,152,358)
Materials and Supplies Inventory	5,800,230	5,972,792
Other Current Assets		
Total Current Assets	<u>82,012,939</u>	<u>161,617,653</u>
Restricted Assets:		
Cash on Deposit for Capital Purposes	30,090,379	2,295
Investments	7,833,813	31,886,000
Equity in Consolidated Cash Account for Capital Purposes	21,663,706	91,342,792
Sinking Funds and Reserves Held by Fiscal Agents	134,466,044	139,180,848
Sinking Funds Applicable to General Obligation Bonds	291,046	275,217
Grants from Other Governments for Capital Purposes	18,617,068	19,404,745
Accrued Interest Receivable	280,078	108,747
Total Restricted Assets	<u>213,242,134</u>	<u>282,200,644</u>
Plant, Property and Equipment:		
In Service	2,083,363,035	1,949,845,119
Less: Accumulated Depreciation	(701,192,262)	(653,182,460)
Under Construction	64,847,253	131,354,783
Total Property, Plant and Equipment	<u>1,447,018,026</u>	<u>1,428,017,442</u>
Total Assets	<u>\$1,742,273,099</u>	<u>\$1,871,835,739</u>

**CITY OF PHILADELPHIA- WATER DEPARTMENT**  
**BALANCE SHEETS, JUNE 30, 1990 AND 1989**

	<u>1990</u>	<u>1989</u>
<b><u>LIABILITIES AND FUND EQUITY</u></b>		
<b>Current Liabilities:</b>		
Vouchers Payable	\$3,815,872	\$6,235,029
Accounts Payable	7,216,238	8,732,369
Salaries and Wages Payable	2,807,168	2,576,207
Construction Contracts Payable	11,899,948	11,725,408
Due to Other Funds	49,531	54,392
Accrued Expenses	27,452,291	26,070,846
Deferred Revenue	5,096,892	
Funds Held in Escrow	249,763	1,583,469
Current Maturities of Long-Term Bonded Debt	51,218,119	47,827,999
<b>Total Current Liabilities</b>	<u>109,805,822</u>	<u>104,805,719</u>
<b>Long-Term Liabilities:</b>		
Bond Anticipation Notes	96,200,000	103,100,000
General Obligation Bonds	41,112,414	50,370,533
Revenue Bonds - Principal Amount	1,052,505,000	1,087,565,000
Less Unamortized Discount	(130,934,660)	(140,365,546)
Other Long-Term Liabilities	40,026,438	33,701,405
<b>Total Long-Term Liabilities</b>	<u>1,098,909,192</u>	<u>1,134,371,392</u>
<b>Total Liabilities</b>	<u>1,208,715,014</u>	<u>1,239,177,111</u>
<b>Fund Equity:</b>		
Contributed Capital - Local Sources	24,642,120	24,642,120
Contributed Capital - Other Sources	537,246,513	549,703,789
Retained Earnings:		
Reserved for Capital Purposes	14,503,947	34,366,064
Unreserved	(42,834,495)	23,946,655
<b>Total Fund Equity</b>	<u>533,558,085</u>	<u>632,658,628</u>
<b>Total Liabilities and Fund Equity</b>	<u>\$1,742,273,099</u>	<u>\$1,871,835,739</u>

# CITY OF PHILADELPHIA- WATER DEPARTMENT

STATEMENT OF REVENUES, EXPENDITURES, ENCUMBRANCES AND CHANGES IN FUND BALANCE - BUDGET  
AND ACTUAL FOR THE FISCAL YEARS ENDED JUNE 30, 1990 AND 1989 (LEGALLY ENACTED BASIS)

	1990		1989	
	BUDGET	ACTUAL	BUDGET	ACTUAL
<b>REVENUE:</b>				
Locally Generated Non-Tax Revenue	\$242,417,000	\$247,265,413	\$249,132,000	\$243,783,027
Revenue from Other Governments	5,992,000	4,502,326	17,020,000	16,098,184
Revenue from Other Funds	13,540,000	31,165,214	12,740,000	13,286,381
<b>Total Revenue</b>	<b>261,949,000</b>	<b>282,932,953</b>	<b>278,892,000</b>	<b>273,167,592</b>
<b>EXPENDITURES AND ENCUMBRANCES:</b>				
Personal Services	71,230,314	66,775,691	71,500,669	68,426,588
Purchase of Services	57,179,913	55,802,276	54,699,597	53,222,003
Materials and Supplies	22,758,979	21,361,059	20,892,651	19,876,819
Equipment	3,740,400	2,417,599	2,475,521	1,566,052
Contributions, Indemnities and Taxes:				
Pension Contributions	11,040,000	11,033,901	9,179,697	9,154,888
Other Employee Benefits	19,117,000	17,626,723	16,950,931	17,172,685
Indemnities and Taxes	4,516,500	2,854,690	4,857,000	4,890,673
<b>Sub-total</b>	<b>34,673,500</b>	<b>31,515,314</b>	<b>30,987,628</b>	<b>31,218,246</b>
Debt Service - Principal	47,827,999	47,827,999	45,965,000	44,864,919
Debt Service - Interest	71,525,396	65,353,246	70,549,005	67,382,607
Interfund Service Charges	16,043,499	21,636,663	14,364,929	22,312,190
Advances, Subsidies, Miscellaneous	1,000,000			
<b>Total Expenditures and Encumbrances</b>	<b>325,980,000</b>	<b>312,689,848</b>	<b>311,435,000</b>	<b>308,869,424</b>
<b>OPERATING SURPLUS (DEFICIT)- FOR THE YEAR</b>	<b>(\$64,031,000)</b>	<b>(29,756,895)</b>	<b>(\$32,543,000)</b>	<b>(35,701,833)</b>
<b>FUND BALANCE, July 1</b>		<b>20,968,441</b>		<b>48,078,255</b>
<b>ADJUSTMENTS:</b>				
Commitments Cancelled - Net		7,323,492		7,472,504
Revenue Adjustments		(489,330)		(336,761)
Other Adjustments		1,954,292		1,456,276
<b>Adjusted Fund Balance, July 1</b>		<b>29,756,895</b>		<b>56,670,274</b>
<b>FUND BALANCE, June 30</b>		<b>\$0</b>		<b>\$20,968,441</b>

# CITY OF PHILADELPHIA-WATER DEPARTMENT

## BONDED DEBT

FOR THE FISCAL YEAR ENDED JUNE 30, 1990

					Fiscal Year 1991			
.....Authorization.....						Debt		
Series	Date	Amount	Maturities	Interest Rates	Outstanding June 30, 1990	Service Interest	Principal Requirements	Outstanding June 30, 1991
Revenue Bonds:								
First Series	5/1/74	\$75,000,000	4/1980 to 4/2009	5.55 to 7.00	\$59,375,000	\$4,093,788	\$1,675,000	\$7,700,000
Second Series	(Refunded)							
Third Series	9/1/76	75,000,000	10/1979 to 10/2001	5.00 to 7.625	53,090,000	3,865,115	2,875,000	50,215,000
Fourth Series	10/1/77	75,000,000	10/1980 to 10/2002	4.75 to 6.75	54,475,000	3,559,000	2,775,000	51,700,000
Fifth Series	12/1/78	100,000,000	12/1981 to 12/2008	5.80 to 7.70	85,130,000	6,307,025	2,220,000	82,910,000
Sixth Series	(Refunded)							
Seventh Series	(Refunded)							
Eighth Series	(Refunded)							
Ninth Series	4/1/83(Prt Ref)	161,955,000	4/1983 to 10/2006	4.75 to 9.875	35,635,000	3,052,337	3,910,000	31,725,000
Eleventh Series	12/1/85	286,900,000	10/1986 to 12/2004	6.00 to 9.10	244,460,000	13,940,290	14,525,000	229,935,000
Twelfth Series	7/1/86	184,975,000	7/1989 to 7/2016	5.70 to 7.90	182,730,000	12,961,442	2,370,000	180,360,000
Thirteenth Series	8/19/86	44,300,000	4/1988 to 4/2000	variable	38,400,000	2,300,000	3,000,000	35,400,000
Fourteenth Series	5/15/89	158,265,000	10/1990 to 10/2008	6.50 to 7.00	158,265,000	6,653,670	1,710,000	156,555,000
Fifteenth Series	5/15/89	176,005,000	10/1992 to 10/2004	6.60 to 6.95	176,005,000	6,760,365		176,005,000
Total		1,337,400,000			1,087,565,000	63,493,032	35,060,000	1,052,505,000
Bond Anticipation								
Notes		124,000,000			103,100,000	5,100,000	6,900,000	96,200,000
General Obligation								
Bonds		219,793,841			50,370,533	2,182,873	9,258,119	41,112,414
Total		\$1,681,193,841			\$1,241,035,533	\$70,775,905	\$51,218,119	\$1,189,817,414

### ANNUAL DEBT SERVICE REQUIREMENT:

Fiscal Year	Interest	Principal	Total
1991	70,775,905	51,218,119	121,994,024
1992	69,147,471	52,784,919	121,932,390
1993	67,251,405	58,629,919	125,881,324
1994	65,089,410	61,108,919	126,198,329
1995	62,812,043	63,168,919	125,980,962

The amount of Capitalized Interest added to Construction in Progress in Fiscal 1990 was \$7,113. Interest Expense was reduced by the same amount.

Bond Anticipation Notes are classified on the Balance Sheet as Long-Term Liabilities. The notes were issued for the purpose of funding capital assets and in anticipation of being refunded by Long-Term Revenue Bonds.

The debt service interest costs for fiscal years 1991 to 1995 for Bond Anticipation Notes are estimated. There are notes which may have variable interest rates and as a result, the actual interest costs may be affected by note market conditions.

# CITY OF PHILADELPHIA-WATER DEPARTMENT

SUPPLEMENTAL SCHEDULE OF RATE COVENANT COMPLIANCE FOR FISCAL YEAR ENDED  
JUNE 30, 1990 (Legally Enacted Basis)

LINE  
NO.

1. Total Operating Revenue	\$271,221,830
2. Net Operating Expense	(146,392,761)
3. Bond Anticipation Notes	(11,168,000)
4. Net Operating Revenue After Notes	<u>113,661,069</u>

## DEBT SERVICE

5. Revenue Bonds Outstanding	(88,976,986)
6. General Obligation Bonds Outstanding	(13,035,259)
7. Total Debt Service on Bonds	<u>(102,012,245)</u>
8. Net Operating Revenue after Bonds	<u>11,648,824</u>

## NONOPERATING INCOME;

9. Interest Income	6,719,467
10. Grant Income	4,502,326
11. Total Nonoperating Income	<u>11,221,793</u>

## OTHER OBLIGATIONS:

12. Direct Interdepartmental Charges	(34,351,130)
13. Transfer of Interest Income to General Fund	(4,138,000)
14. Renewal and Replacement Fund Transfers	(5,349,928)
15. Renewal and Replacement Project Expenditures	0
16. Total Other Obligations	<u>(43,839,058)</u>

17. Net Operating Balance for Current Year	(20,968,441)
18. Net Balance at Beginning of Fiscal Year	20,968,441
19. Net Balance at End of Fiscal Year	<u>\$0</u>

# CITY OF PHILADELPHIA-WATER DEPARTMENT

## SUPPLEMENTAL SCHEDULE OF RATE COVENANT COMPLIANCE FOR THE FISCAL YEAR ENDED JUNE 30, 1990 (Amounts in Thousands of Dollars)(Legally Enacted Basis)

Pursuant to section 4.03(b) of the General Water and Sewer Revenue Bond Ordinance of 1974 (Bill No. 1263), the City is required to impose, charge and collect in each Fiscal Year rates and charges at least sufficient, together with that portion of the unencumbered amount of the operating funds balances available and reserved for appropriation for the payment of Operating Expenses at the commencement of such Fiscal Year, which together with all other project revenues to be received in such Fiscal Year, shall equal not less than the greater of:

**A. The sum of:**

- (i) all Net Operating Expenses payable during such Fiscal Year;
- (ii) 150% of the amount required to pay the principal of and interest on all Bonds issued and outstanding hereunder which will become due and payable during such Fiscal Year; and
- (iii) the amount, if any, required to be paid into the Sinking Fund Reserve during such Fiscal Year; or

**B. The sum of:**

- (i) all Operating Expenses payable during such Fiscal Year; and
- (ii) all Sinking Fund deposits required during such Fiscal Year in respect of all outstanding Bonds and in respect of all outstanding general obligation bonds issued for improvements to the water or sewer systems and all amounts, if any required during such Fiscal Year to be paid into the Sinking Fund Reserve.

Coverage is computed as follows:

Coverage A	
Line 4	113,661,069
+ Line 11	11,221,793
+ Line 18	20,968,441
	145,851,303
/ Line 5	(88,976,986)
= Coverage A	(1.64)
Coverage B	
Line 4	113,661,069
+ Line 11	11,221,793
- Line 12	(34,351,130)
+ Line 18	20,968,441
	111,500,173
/ Line 7	(102,012,245)
= COVERAGE B	(1.09)

**APPENDIX III**

**Summaries of the Act, the 1974 General Ordinance,  
the Sixteenth Supplemental Ordinance and  
the 1989 General Ordinance**



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further legislation; (ii) those bulk payments which may be imposed under existing legislation or which are provided under existing agreements or are the subject of an expression of intent by the prospective obligor deemed reliable by the chief fiscal officer of the City; and (iii) those governmental subsidies or payments which, under existing legislation, are subject to reasonably precise calculation and, unless stated in such legislation or authorization to be of an annually or more frequently recurring nature, are payable in such year.

#### **Detail of Bonds and City Covenants**

The Act provides that the ordinance authorizing the issuance of the Bonds shall fix the aggregate amount of Bonds to be issued from time to time and determine, or designate officers of the City to determine the form and details of the Bonds. The City may include in its bond ordinance various covenants with bondholders, including covenants governing the imposition, collection and disbursement of project revenues, project operation and maintenance, the establishment, segregation, maintenance, custody, investment and disbursement of sinking funds and reserves, the issuance of additional priority or parity Bonds, the redemption of Bonds and such other provisions as the City deems necessary or desirable in the interest or for the protection of the City or of such bondholders. Under the Act the covenants, terms and provisions of the bond ordinance made for the benefit of bondholders constitute contractual obligations of the City, but such covenants (within limitations, if any, fixed by the bond ordinance) may be modified by agreement with a majority in interest of the bondholders or such larger portion thereof or may be provided in the bond ordinance.

#### **Sinking Fund**

The Act requires that the bond ordinance shall provide for the establishment and maintenance of a sinking fund or shall designate a previously established sinking fund for the payment of the principal of and interest on the Bonds. Payment into such sinking fund shall be made in annual or more frequent installments and shall be sufficient to pay or accumulate for payment all principal of or interest on the Bonds for which the sinking fund is established as and when the same shall become due and payable. The sinking fund shall be managed by the chief fiscal officer of the City and moneys therein to the extent not currently required shall be invested, subject to limitations established by the bond ordinance and the Act. Interest and profits from investment of moneys in the sinking fund shall be added to such fund and may be applied in reduction of or to complete required deposits to the sinking fund. Excess moneys in the sinking fund shall be repaid to the City for its general purposes. All moneys deposited in the sinking fund are subjected to a perfected security interest for the Bonds for which the fund is established until properly disbursed. This perfected security interest also applies, under the terms of the Act, to moneys in the sinking fund reserve created as part of the sinking fund by the 1974 General Ordinance.

#### **Refunding**

Bonds from time to time outstanding under the Act or other bonds issued for purposes for which Bonds are issuable under the Act, whether issued before or after the effective date of the Act, may be refunded by Bonds issued under the Act and are subject to the same protections and provisions required for the issuance of an original issue of Bonds. The refunding provisions of the Act permit "advance refunding", provided that the maturity date of the refunding bonds is not later than ten years after the last stated maturity date of the bonds to be refunded. If outstanding bonds are refunded in advance of their maturity or redemption date, the principal of and interest to payment or redemption date and redemption premium payable, if any, will no longer be deemed to be outstanding obligations when the City shall have deposited with a bank, bank and trust company or trust company funds irrevocably pledged to the purpose, which are represented by demand deposits, interest-bearing time accounts, savings deposits, certificates of deposit (insured or secured as public funds) or specified public obligations of the United States or of the Commonwealth of Pennsylvania (the "Commonwealth") sufficient to effect such redemption or payment or, if interest on deposited funds to the time of disbursement is also pledged, sufficient, together with such interest, for such purpose and, in the case of redemption, shall have duly called the bonds for redemption or given irrevocable instructions to give notice of such call.

### **Validity of Proceedings; Suits and Limitations Thereon**

Prior to the delivery of any Bonds, the City must file with the Court of Common Pleas of Philadelphia County (the "Court") a transcript of the proceedings authorizing the issuance of the Bonds. If no action is brought on or before the twentieth day following the date of recording of the transcript, the validity of the proceedings, the City's right to issue the Bonds, the lawful nature of the purpose for which the Bonds are issued, and the validity and enforceability of the Bonds in accordance with their terms may not thereafter be inquired into judicially, in equity, at law, or by civil or criminal procedures, or otherwise, either directly or collaterally, except where a constitutional question is involved.

### **Negotiable Instruments**

The Act provides that Bonds issued thereunder shall have the qualities and incidents of securities under Article 8 of the Uniform Commercial Code of the Commonwealth and shall be negotiable instruments.

### **Exemption from State Taxation**

The Commonwealth pledges with the holders from time to time of Bonds issued under the Act that such Bonds, their transfer and the income therefrom, including any gains made on the sale thereof (other than underwriting profits in a distribution thereof), shall at all times be free from taxation within and by the Commonwealth, but this exemption does not extend to underwriting profits or to gift, succession or inheritance taxes or any other taxes not levied directly on the Bonds, the receipt of income therefrom or the realization of gains on the sale thereof.

### **Defaults and Remedies**

If the City should fail to pay the principal of or interest on any Bonds when the same shall be due and payable, the remedy provisions of the Act permit the holder of such Bond, subject to the limitations described below, to recover the amount due in an action in the Court; but a judgment rendered in favor of the bondholder in such an action is collectible only from Project Revenues. The holders of 25% in aggregate principal amount of Bonds which are in default, whether because of failure of timely payment which is not cured within 30 days, or failure of the City to comply with any other provisions of the Bonds or any Bond ordinance, may appoint a trustee to represent them. On being appointed, the trustee shall be the exclusive representative for the affected bondholders and the individual right of action described above shall no longer be available. The trustee may, and upon written request of the holders of 25% in aggregate principal amount of the Bonds and on being furnished with indemnity satisfactory to it, shall take one or more of the following actions, which, if taken, shall preclude similar action, whether previously or subsequently initiated, by individual holders of Bonds: enforce, by proceedings at law or in equity, all rights of the holders of the Bonds; bring suit on the Bonds; bring suit in equity to require the City to make an accounting for all pledged Project Revenues received and to enjoin unlawful action or action in violation of the holders' rights; and, after 30 days' written notice to the City, declare the unpaid principal of the Bonds to be immediately due and payable, together with interest thereon at the rates stated in the Bonds until final payment, and upon the curing of all defaults, to annul such declaration. In any suit, action or proceeding by or on behalf of the holders of defaulted Bonds, trustee fees and expenses, including operating costs of a project and reasonable counsel fees, as all such costs and expenses are allowed by the Court, shall be deemed additional principal due on the Bonds and shall be paid in full from any recovery prior to any distribution to the holders of the Bonds. The 1974 General Ordinance limits any such recovery to Project Revenues. The trustee shall make distribution of any sums so collected in accordance with the Act.

### **Refunding with General Obligation Bonds**

Upon certification with the City's chief fiscal officer that project revenues pledged for the payment of Bonds have become insufficient to meet the requirements of the ordinance or ordinances under which the Bonds were issued, the City Council is empowered, but not required, subject to applicable Commonwealth constitutional debt limitations, to authorize the issuance and sale of general obligation refunding bonds of the City, without limitation as to rate of interest, in such principal amount (subject to the aforesaid limitations on indebtedness) as may be required, together with other available funds, to pay and redeem such Bonds, together with interest to the payment or redemption date and redemption premium, if any.

## THE 1974 GENERAL ORDINANCE

(Ordinance of City Council approved May 16, 1974 — Bill No. 1263, as amended by Ordinance of the City Council approved December 7, 1978 — Bill No. 1685, Ordinance of the City Council approved March 27, 1980 — Bill No. 52, Ordinance of the City Council approved September 24, 1981 — Bill No. 834 and Ordinance of the City Council approved June 21, 1984 — Bill No. 93)

Pursuant to the authorization contained in the Act, the City has adopted the 1974 General Ordinance. Under the 1974 General Ordinance the City has made a pledge of, and has granted a security interest in all Project Revenues (as hereinafter defined) and all accounts, contract rights and general intangibles representing Project Revenues of the Water Department of the City for the security and payment of the principal of, interest on and redemption premium (if any) on all Bonds issued under the 1974 General Ordinance.

Project Revenues are defined in the 1974 General Ordinance to include all rents, rates and charges imposed or charged by the City upon the owners or occupants of properties connected to, and upon all users of, the water and sewer systems of the City and all other Project Revenues (as such term is defined in the Act) derived from such system, and all accounts, contract rights and general intangibles representing the Project Revenues. Under the Act, Project Revenues mean, in respect of a project, all rents, rates, tolls and charges imposed or charged for the use or product of or services generated from the project to the ultimate users or customers thereof, all payments under bulk contracts with municipalities, government instrumentalities or other bulk users, all subsidies or payments payable by Federal, state or local governments or governmental agencies on account of the cost of operation of the project, or the payment of the principal of or interest on moneys borrowed to finance the cost of the project, and may include reasonable estimates of all interest on and profits from investment of moneys derived from the foregoing.

### Issuance of Bonds

Bonds may be issued in one or more series as the City may from time to time determine by supplemental ordinance (a "Supplemental Ordinance"). The 1974 General Ordinance provides for the method of setting the details and terms of the Bonds authorized by such Supplemental Ordinance including the requirement that the Supplemental Ordinance contain a finding that Project Revenues will be sufficient to comply with the Rate Covenant set forth in the 1974 General Ordinance. The 1974 General Ordinance sets forth the manner of making payment of principal, interest and premium, requirements governing such payment, the rules regarding registration, transfer and exchange of Bonds, and general provisions governing redemption and the effect thereof. The 1974 General Ordinance authorizes the issuance of definitive and temporary Bonds, provides for the execution of the Bonds and provides for the issuance of Bonds to replace mutilated, destroyed, lost or stolen Bonds.

### Purposes For Which Bonds May Be Issued; Conditions of Issuance — Engineering Report

Bonds may be issued to (1) pay the cost of projects related to the water and sewer systems, (2) reimburse any City fund from which such costs shall have been paid or advanced, (3) fund any such cost for which the City shall have outstanding bond anticipation notes or other obligations, (4) refund any Bonds of the City issued for such purposes under the Act, or (5) refund any general obligation bonds of the City issued for the foregoing purposes. However, the City also covenants that it will not refund, by the issuance of Bonds, general obligation bonds or notes issued prior to January 1, 1974.

The City covenants so long as any Bonds shall remain outstanding, no Bonds will be issued unless the financial report of the City's chief fiscal officer required by the Act to be filed with the City Council in connection with such issuance shall be accompanied by an engineering report of an independent registered consulting engineer or an independent firm of registered consulting engineers, in either case having broad experience in the design and analysis of the operation of water and sewer systems of the magnitude and scope of the City's water and sewer systems and a favorable reputation for competence in such field. The report must contain a statement that the engineers have made an investigation of physical properties included in both systems and of the books and records of the Water Department. Also, prior to the issuance of the Bonds, a transcript of the proceedings authorizing the issuance of the Bonds shall be filed with the Fiscal Agent, together with a copy of the engineering report.

On the basis of such investigation the engineering report must contain the same matters, statements and opinions as are required to be contained in the report of the chief fiscal officer to the City Council, namely (1) a brief description of the project or projects for which the Bonds are to be issued, (2) a statement identifying the sources from which the pledged Project Revenues are to be derived, (3) a statement that on the basis of actual and estimated future annual financial operations of the project from which the pledged Project Revenues are to be derived, the project will, in the opinion of the engineers, yield pledged Project Revenues over the amortization period of such Bonds sufficient to meet the payment or deposit requirements of operating expenses, reserve requirements, and debt service on all Bonds outstanding for which Project Revenues are pledged and surplus requirements of the 1974 General Ordinance, or the Supplemental Ordinance authorizing the issuance of any series of Bonds, and (4) that the revenues upon which the preceding statements are based comply with the definition of "Project Revenues" contained in the Act. The 1974 General Ordinance also requires that the engineering report state that the water and sewer rents, rates and charges, on the basis of which the foregoing statements are made, are currently and will be sufficient to comply with the Rate Covenant and that the water and sewer systems are in good operating condition or that adequate steps are being taken to make them so.

#### **Security**

The Bonds are and will be equally and ratably secured by a pledge of and a security interest in all Project Revenues and the Sinking Fund, including the Sinking Fund Reserve.

#### **Priority in Application of Project Revenues**

Prior to default, the General Ordinance establishes the following priorities in the application of Project Revenues during each fiscal year:

First, to Net Operating Expenses (as defined in the 1974 General Ordinance);

Second, to required payments in to the Sinking Fund to pay the principal of and interest on all Bonds issued under the 1974 General Ordinance and to accumulate, or to restore any deficiency in, the Sinking Fund Reserve;

Third, to the payment of general obligation bonds which have been adjudged to be self-liquidating on the basis of expected revenues from the water and sewer systems; and

Fourth, to the payment of Interdepartmental Charges and interest and sinking fund charges of other general obligation debt, incurred for the water and sewer systems.

#### **Rate Covenant**

The City covenants that it has authorized, by its Code of General Ordinances, as amended, the imposition of rates and charges by the Water Department sufficient to comply with the Rate Covenant in the 1974 General Ordinance, and that it will not repeal or materially adversely dilute such authorization.

The Rate Covenant requires the City, at a minimum, to impose, charge and collect in each fiscal year such water and sewer rents, rates and charges as shall, together with that portion of the unencumbered amount of the operating funds balances, if any, of the Water Department available and reserved for appropriation for the payment of Operating Expenses, at the commencement of such fiscal year and together with all other Project Revenues to be received in such fiscal year, equal not less than the greater of:

A. The sum of:

(i) all Net Operating Expenses payable during such fiscal year;

(ii) 150% of the amount required to pay the principal of and interest on all Bonds issued and outstanding under the 1974 General Ordinance which will become due and payable during such fiscal year; and

(iii) the amount, if any, required to be paid into the Sinking Fund Reserve during such fiscal year; or

**B. The sum of:**

- (i) all Operating Expenses payable during such fiscal year; and
- (ii) all Sinking Fund deposits required during such fiscal year in respect to all outstanding Bonds and in respect to all outstanding general obligation bonds issued for improvements to the water or sewer systems and all amounts, if any, required during such fiscal year to be paid into the Sinking Fund Reserve.

Operating Expenses are defined in the 1974 General Ordinance to be all costs and expenses of the Water Department necessary and appropriate to operate and maintain the water and sewer systems in good operable condition during each fiscal year of the City, including, without limitation, salaries and wages, purchases of services by contract, costs of materials, supplies and expendable equipment, maintenance costs, costs of any property or the replacement thereof or for any work or project, related to the water and sewer systems, which does not have a probable useful life to the City of at least five years, pension and welfare plan and workmen's compensation requirements, provisions for claims, refunds and uncollectible receivables and for Interdepartmental Charges, all in accordance with generally accepted municipal accounting principles consistently applied, but shall exclude depreciation and interest and sinking fund charges.

Net Operating Expenses are defined in the 1974 General Ordinance to be Operating Expenses exclusive of Interdepartmental Charges.

Interdepartmental Charges are defined in the 1974 General Ordinance to be the proportionate charges for services performed for the Water Department by all officers, departments, boards or commissions of the City which are required by the Home Rule Charter of the City to be included in the computation of Operating Expenses of the Water Department.

**Additional Covenants**

The City further covenants that it will pay or cause to be paid from the Project Revenues the principal of and interest on all Bonds as the same become due and payable and that it will not in any fiscal year pay from Project Revenues sinking fund charges for general obligation water and sewer bonds or Interdepartmental Charges unless prior to or concurrently with such payment it shall satisfy all Sinking Fund requirements on Bonds for such fiscal year. The City also has a general obligation to maintain or cause to be maintained and operate or cause to be operated the water and sewer systems.

As amended in the Seventh Supplemental Ordinance, approved September 24, 1981, Bill No. 834, the City covenants, subject to the availability of funds, to deposit in a Renewal and Replacement Fund from Project Revenues of the water and sewer systems in the last month of each fiscal year, commencing in Fiscal Year 1984, an amount not less than 50% of (i) interest income earned on moneys held in all capital improvement funds of the Water Department plus interest earned on moneys held in the Water and Sewer Revenue Bond Sinking Fund Reserve less (ii) the maximum amount permitted to be transferred to the City pursuant to Section 7 of the Fifth Supplemental Ordinance, as amended. The City is not obligated to make a deposit in any year in excess of a sum which together with the balance in the Renewal and Replacement Fund on the first day of the next ensuing fiscal year will exceed 25% of the maximum annual debt service requirement for all Bonds then outstanding. If, prior to the last quarter of a fiscal year, the Water Commissioner estimates that the required deposit or a portion thereof will not be available from operating funds in the current fiscal year, the operating budget for the next fiscal year shall include the estimated deficiency as an appropriation from Project Revenues. The Renewal and Replacement Fund shall be held by the Fiscal Agent of the City in an account separate and apart from all other accounts of the City. Amounts in the Renewal and Replacement Fund may only be used at the direction of the Water Commissioner for payment of capital costs of the water and sewer systems or, in certain circumstances, at the direction of the Director of Finance for operating purposes of the Water Department. The Fiscal Agent has been granted a security interest in moneys in the Renewal and Replacement Fund on behalf of holders of all Bonds.

**Report Requirements**

The City shall file with the Fiscal Agent not later than 120 days after the close of each fiscal year a report of the operation of the water and sewer systems, including specified financial data, showing compliance with the Rate Covenant and accompanied by a certificate of the Water Commissioner that the water

and sewer systems are in good operating condition and a certificate of the Director of Finance that as of the date of such report the City has complied with all covenants and requirements of the 1974 General Ordinance and Supplemental Ordinances. Copies of such report will be available to bondholders and may be inspected and copied at all reasonable times by bondholders or their representatives.

#### **General Obligation Water and Sewer Bonds — Junior Lien Revenue Bonds**

The City reserves the right to finance water and sewer projects by issuing general obligation bonds or revenue bonds under authorization other than the 1974 General Ordinance, for the payment of which Project Revenues may be pledged, provided that such pledge is subject and subordinate to the prior payment in each fiscal year of all Sinking Fund requirements of all Bonds issued under the 1974 General Ordinance.

#### **Sinking Fund and Sinking Fund Reserve**

A Water and Sewer Revenue Bond Sinking Fund is established and consolidated for the benefit of the holders of all Bonds issued under the 1974 General Ordinance, which shall be held in an account separate and apart from all other accounts of the City. On or before each interest and principal payment date for the Bonds, the Director of Finance shall deposit in the Sinking Fund from Project Revenues such amounts as will, together with interest and profits on investments held therein, be sufficient to pay the principal of and interest on the Bonds. CoreStates Bank, N.A., successor to The Philadelphia National Bank, as Fiscal Agent of the City, is designated by the 1974 General Ordinance as Fiscal Agent, Sinking Fund Depositary, paying agent and registrar of the Bonds, but the City reserves the right to change such designation or to make additional appointments. Fidelity Bank, National Association has been appointed as Fiscal Agent, effective June 4, 1991, replacing CoreStates Bank, N.A. The moneys in the Sinking Fund are required to be secured and invested and reinvested under the management of the Director of Finance.

The Sinking Fund Reserve is established as a separate account in the Sinking Fund and is to be held by the Sinking Fund Depositary. The Sinking Fund Reserve shall be funded from the proceeds of each series of Bonds in an amount equal to the maximum amount required in any fiscal year to pay the debt service on the Bonds of such series becoming due and payable in such fiscal year, unless the Supplemental Ordinance authorizing the issuance of such series provides for the funding of such amount from Project Revenues over a period of not more than six fiscal years after the issuance and delivery of such Bonds. The City has not elected to fund the Sinking Fund Reserve from Project Revenues in respect of the Sixteenth Series Bonds or any prior series.

The money and investments (valued at market) in the Sinking Fund Reserve shall be maintained in an amount equal at all times to the maximum principal and interest requirements in any subsequent fiscal year of all Bonds issued and outstanding under the 1974 General Ordinance. If at any time the moneys in the Sinking Fund, other than in the Sinking Fund Reserve, are insufficient to pay when due the principal of (and premium, if any) or interest on any Bond or Bonds, the Sinking Fund Depositary shall withdraw from the Sinking Fund Reserve and pay to the Fiscal Agent the amount of such deficiency. If by reason of such withdrawal or for any other reason there shall be a deficiency in the Sinking Fund Reserve, the City covenants to restore such deficiency by daily deposits of at least 50% of Project Revenues.

#### **Transfer of Income on Sinking Fund Reserve and Capital Improvement Funds**

The 1974 General Ordinance requires that all interest and income earned on moneys held in the Water Department's capital improvement funds be transferred to the Water Department's operating funds to be applied as Project Revenues in accordance with the terms of the 1974 General Ordinance. The 1974 General Ordinance also provides that all interest and income earned on moneys held in the Sinking Fund Reserve may be transferred by the Director of Finance to the Water Department's operating funds to be so applied. To the extent that in any fiscal year a remaining balance exists in these operating funds, such balance may be applied to any proper purpose of the City, including the City's General Fund, provided that in a given fiscal year the amount of the balance so applied does not exceed the lowest of (i) the amount of the Sinking Fund Reserve earnings transferred to the operating funds during the same fiscal year or (ii) the amount of capital improvement funds earnings transferred to the operating funds during the same fiscal year or (iii) \$4,994,000.



### **Remedies; Limitation of Liability of City**

In addition to the remedies provided by the Act, if the City shall fail or neglect to make deposits into the Sinking Fund, including the Sinking Fund Reserve, in the amounts and at the times required by the 1974 General Ordinance or if for any reason moneys in the Sinking Fund shall be insufficient to pay debt service on any Bonds or if there shall be a deficiency in the Sinking Fund Reserve the City shall immediately and without notice deposit on a daily basis 50% of all Project Revenues, or such greater percentage thereof as the Director of Finance shall determine, in the Sinking Fund, including the Sinking Fund Reserve, so long as such default or deficiency shall continue. The 1974 General Ordinance provides that all remedies are enforceable only against pledged Project Revenues and investments thereof, and that no decree or judgment against the City on an action brought under the provisions of the 1974 General Ordinance shall order or be construed to permit the occupation, attachment, seizure or sale upon execution of any other property of the City.

### **Amendments**

The 1974 General Ordinance and any Supplemental Ordinance may be amended without the consent of any bondholders to cure ambiguities, formal defects or omissions, or to grant to bondholders or any trustee therefor additional rights or security, to comply with mandatory provisions of state or Federal law or with permissive provisions of such law which do not substantially impair the security or rights to payment of bondholders. The 1974 General Ordinance may be amended in such other respects as may be authorized by 67% in principal amount of the holders of Bonds outstanding and affected, but no alteration of the amount, rate or time of payment, respectively, of the principal and interest or of the redemption provisions may be made without the consent of the holders of all Bonds outstanding and affected.

### **Amendments Not Affecting Outstanding Bonds**

The 1974 General Ordinance or any part thereof may be amended and the foregoing covenants (including the Rate Covenant) may be rescinded, amended or supplemented by further covenants and agreements from time to time by Supplemental Ordinance, but no such amendments or further provisions, terms covenants or agreements contained in a Supplemental Ordinance, other than those permitted by, and adopted pursuant to, Section 8.01 of the 1974 General Ordinance governing amendments generally, which shall be inconsistent with, or would impair a prior covenant in, the 1974 General Ordinance as at the time amended or supplemented, shall become effective until all Bonds the holders of which are entitled to the protection of, or to enforce compliance with, such prior provisions or covenants, shall cease to be outstanding.

### **THE SIXTEENTH SUPPLEMENTAL ORDINANCE** **(Ordinance of City Council approved May 2, 1991** **Bill No. 1366)**

The Sixteenth Supplemental Ordinance authorizes the Mayor, City Controller and the City Solicitor (the "Bond Committee"), or a majority of them, to sell the Sixteenth Series Bonds at either a public competitive sale to the highest bidder or bidders or at a private negotiated sale, in an aggregate principal amount not to exceed three hundred fifty million dollars (\$350,000,000). The Sixteenth Supplemental Ordinance provides that the Sixteenth Series Bonds shall bear interest at a prescribed fixed rate or rates, including variable rates (not exceeding any limitation prescribed by law) which may be payable in different modes. The Sixteenth Supplemental Ordinance specifies the applicability of sections of the Act, the 1974 General Ordinance and the 1989 General Ordinance. It also authorizes the Bond Committee to enter into agreements with any appropriate entity providing credit, payment or liquidity sources for the Sixteenth Series Bonds.

The Sixteenth Supplemental Ordinance states that the Sixteenth Series Bonds are to be issued to finance certain capital costs of the water and sewer systems of the City incurred or to be incurred.

As additional security for the Sixteenth Series Bonds and commencing on the date of issuance of the Sixteenth Series Bonds, the Sixteenth Supplemental Ordinance establishes a separate City of Philadelphia Water Account to be held exclusively for Water Department purposes (the "Water Account"). The Water Account shall be held by the Fiscal Agent for the deposit of the proceeds of the Sixteenth Series Bonds and



the Project Revenues, as they are collected or received and shall be held in the Water Account as a segregated account in respect of the water and wastewater systems and for the benefit of the Holders of all Bonds issued under the 1974 General Ordinance, so long as the Sixteenth Series Bonds shall remain outstanding.

The City covenants (i) to maintain the Water Account as a legally segregated account to be held by the Fiscal Agent separate and apart from all other funds and accounts of the City and the Water Account shall not be commingled with the consolidated cash account or any other fund or account of the City not held exclusively for Water Department purposes; and (ii) while the Sixteenth Series Bonds are outstanding, it will not make temporary loans or advances of bond proceeds or Project Revenues from the Water Account, the Sinking Fund, the Sinking Fund Reserve and the Renewal and Replacement Fund or any other fund or account of the City held exclusively for Water Department purposes by the Fiscal Agent to any City account not held exclusively for Water Department purposes.

The Sixteenth Supplemental Ordinance establishes within the Water Account two subaccounts for accounting purposes into which deposits and from which disbursements shall be made for operating and capital purposes.

If at any time sufficient moneys are not available in the subaccount maintained in the Water Account for operating purposes, then amounts on deposit in the subaccount of the Water Account maintained for capital purposes may be loaned temporarily until required by the Water Department for capital purposes for the payment of operating expenses to the extent of the deficiency. If a similar deficiency exists in the subaccount maintained in the Water Account for capital purposes, amounts on deposit in the operating subaccount may be loaned temporarily until required by the Water Department for operating purposes for the payment of capital expenditures, to the extent of the deficiency.

Based on the report of the Director of Finance filed with the City Council pursuant to the Act, the Sixteenth Supplemental Ordinance determines that Project Revenues will be sufficient to comply with the Rate Covenant contained in the 1974 General Ordinance and to pay all costs, expenses and payments required to be paid therefrom in the order of priority as set forth in the 1974 General Ordinance. The City covenants in the Sixteenth Supplemental Ordinance that, so long as any Sixteenth Series Bonds remain outstanding, it will make payments or cause payments to be made out of the Water and Sewer Revenue Bond Sinking Fund at such times and in such annual amounts as shall be sufficient to pay interest on and principal of all Sixteenth Series Bonds when due, and as of the effective date of the 1989 General Ordinance, the City will make such payments or cause such payments to be made out of the Sinking Fund established under the 1989 General Ordinance. The Sixteenth Supplemental Ordinance authorizes the Director of Finance to take such action with respect to investment of proceeds and authorizes the Director of Finance and any member of the Bond Committee to make such covenants as may be necessary or advisable to assure that the Sixteenth Series Bonds will not be "arbitrage bonds" as defined in the Internal Revenue Code of 1986, as amended, in order to otherwise effect or maintain the exclusion of interest on the Sixteenth Series Bonds from gross income for Federal income tax purposes.

The Sixteenth Supplemental Ordinance provides for the deposit of a portion of the proceeds from the sale of the Sixteenth Series Bonds into the Sinking Fund Reserve created under the 1974 General Ordinance in an amount not exceeding the maximum amount required in any fiscal year to pay principal and interest on the Sixteenth Series Bonds becoming due in such fiscal year or ten percent of the proceeds of the Sixteenth Series Bonds, as determined by the Bond Committee (the "Sixteenth Series Reserve Requirement"); provided that, the Sixteenth Series Reserve Requirement shall not cause the Sixteenth Series Bonds to be "arbitrage bonds" as defined in the Internal Revenue Code of 1986, as amended.

Upon the effective date of the 1989 General Ordinance, the provisions of the 1989 General Ordinance shall be applicable to the Sixteenth Series Bonds without further action by City Council.

### **SUMMARY OF 1989 GENERAL ORDINANCE**

#### **Definition of Terms Used Therein**

All references herein to the "Revenue Account", "Sinking Fund", "Subordinated Bond Fund", "Rate Stabilization Fund", "Capital Account", "Construction Fund", "General Account", and "Rebate Fund" shall mean the Funds and Accounts so designated which are established pursuant to the 1989 General Ordinance.

"Act" means The First Class City Revenue Bond Act approved October 18, 1972 (Act No. 234, 53 P.S. 15901 to 15924) as from time to time amended.

"Bond" or "Bonds" means any water and wastewater revenue bond or note of the City (excluding a bond anticipation note) issued and outstanding pursuant to the Act under the 1989 General Ordinance, as supplemented by any Supplemental Ordinance.

"Bond Counsel" means a firm of nationally recognized bond counsel selected by the City.

"Bondholder" or "Holder" means any registered owner of Bonds or Holder of Bonds issued in coupon form.

"Capital Account Deposit Amount" means an amount equal to 1% of the depreciated value of property, plant and equipment of the System or such greater amount as shall be annually certified to the City in writing by a Consulting Engineer as sufficient to make renewals, replacements and improvements in order to maintain adequate water and wastewater service to the areas served by the System.

"City" means the City of Philadelphia, Pennsylvania.

"City Controller" means the head of the City's auditing department as provided by the Philadelphia Home Rule Charter.

"City Solicitor" means the head of the City's law department as provided by the Philadelphia Home Rule Charter.

"Code" means the Internal Revenue Code of 1986, as amended.

"Consulting Engineer" means a nationally recognized independent registered consulting engineer or a nationally recognized independent firm of registered consulting engineers, in either case having experience in the design and analysis of the operation of water and wastewater systems of the magnitude and scope of the System.

"Debt Service Requirements", with reference to a specified period, means:

A. amounts required to be paid into any mandatory sinking fund established for the benefit of Bonds during the period;

B. amounts needed to pay the principal or redemption price of Bonds maturing during the period and not to be redeemed at or prior to maturity through any sinking fund established for the benefit of Bonds; and

C. interest payable on Bonds during the period, with adjustment for capitalized interest or redemption through any sinking fund established for the benefit of Bonds.

For purposes of estimating Debt Service Requirements for any future period, any Option Bond outstanding during such period shall be assumed to mature on the stated maturity date thereof, except that the principal amount of any Option Bond tendered for payment and cancellation before its stated maturity date shall be deemed to accrue on the date required for payment pursuant to such tender.

Calculation of Debt Service Requirements with respect to Variable Rate Bonds shall be subject to adjustment as permitted by the Section entitled "Rate Covenant".

"Debt Service Withdrawal" means the aggregate amount withdrawn from the Capital Account during a Fiscal Year and applied toward the payment of principal or redemption price of or interest on Bonds or toward the elimination of a deficiency in any reserve fund established for the benefit of Bonds.

"Determination" means a determination regarding certain matters relating to the issuance of a Series of Bonds, made by officers of the City authorized pursuant to the Supplemental Ordinance providing for the issuance of such Series of Bonds.

"Director of Finance" means the chief financial, accounting and budget officer of the City, as established by the Philadelphia Home Rule Charter.

"Fiscal Agent" means a bank or other entity designated as such pursuant to the 1989 General Ordinance or its successor.

**"Fiscal Year"** means the fiscal year of the City.

**"General Obligation Bonds"** means the general obligation bonds of the City outstanding as of the date of enactment of this Ordinance issued to finance improvements to the System and adjudged to be self-liquidating on the basis of expected Project Revenues.

**"Government Obligations"** means direct obligations of, or obligations the principal of and interest on which are unconditionally guaranteed by, the United State of America.

**"Independent"** means a person who is not a salaried employee or elected or appointed official of the City; provided, however, that the fact that such person is retained regularly by or transacts business with the City shall not make such person an employee within the meaning of this definition.

**"Initial Deposit"** means the initial, one time deposit to be made by the City from any source into the Rate Stabilization Fund upon the establishment of such Rate Stabilization Fund and the effective date of the 1989 General Ordinance.

**"Interdepartmental Charges"** means the proportionate charges for services performed for the Water Department by all officers, departments, boards or commissions of the City which are required by the Philadelphia Home Rule Charter to be included in the computation of operating expenses of the Water Department.

**"Interim Debt"** means any bond anticipation notes (other than any bond anticipation notes outstanding as of the date of enactment of the 1989 General Ordinance) or other temporary borrowings which the City anticipates, permanently financing with Bonds or other long term indebtedness under the 1989 General Ordinance or otherwise.

**"Net Revenues"** for any period means the Project Revenues collected during such period and deposited into the Revenue Account plus (x) the amounts, if any, transferred from the Rate Stabilization Fund into the Revenue Account during such period and (y) interest earnings during such period on moneys in any of the funds or accounts established under the 1989 General Ordinance to the extent such interest earnings are credited to the Revenue Account minus (z) the sum of (a) Operating Expenses incurred during such period and (b) the amounts, if any, transferred from the Revenue Account to the Rate Stabilization Fund during such period; provided, however, that in determining such Net Revenues the Initial Deposit to the Rate Stabilization Fund shall not reduce such Net Revenues.

**"1974 General Ordinance"** means the General Water and Sewer Revenue Bond Ordinance of 1974 approved May 16, 1974 as amended and supplemented from time to time.

**"1989 General Ordinance"** means the General Water and Wastewater Revenue Bond Ordinance of 1989 approved May 18, 1989.

**"Operating Expenses"** means all costs and expenses of the Water Department necessary and appropriate to operate and maintain the System in good operating condition during each Fiscal Year of the City, and shall include, without limitation, salaries and wages, purchases of services by contract, costs of materials, supplies and expendable equipment, maintenance costs, costs of any property or the replacement thereof or for any work or project, related to the System, which is not properly chargeable to property, plant and equipment, pension and welfare plan worker's compensation requirements, provisions for claims, refunds and uncollectible receivables and for Interdepartmental Charges, all in accordance with generally accepted accounting principles consistently applied, but Operating Expenses shall exclude depreciation, amortization, interest and sinking fund charges.

**"Operating Expense Withdrawal"** means the aggregate amount withdrawn from the Capital Account during a Fiscal Year and applied toward the payment of Operating Expenses.

**"Option Bond"** means any Bond which by its terms may be tendered by and at the option of the Holder thereof for payment by the City prior to its stated maturity date or the maturity date of which may be extended by and at the option of the Holder thereof.

**"Philadelphia Home Rule Charter"** means the Philadelphia Home Rule Charter, as amended or superseded by any new home rule charter, adopted pursuant to authorization of the First Class City Home Rule Act approved April 21, 1949, P.L. 665 et seq. (53 P.S. 13101 et seq.).

"Project" shall have the meaning assigned to it in the Act, as the same may be amended from time to time.

"Project Revenues" means all rents, rates, fees and charges imposed or charged for the use or product of or services generated by the System to the ultimate users or customers thereof, all payments under bulk contracts with municipalities, governmental instrumentalities or other bulk users, all subsidies or payments payable by Federal, State or local governments or governmental agencies on account of the cost of operation of, or the payment of the principal of or interest on moneys borrowed to finance costs chargeable to the System, all grants, payments and contributions made in aid or on account of the System and all accounts, contract rights and general intangibles representing the foregoing.

"Qualified Escrow Securities" means funds which are represented by (a) demand deposits, (b) interest bearing time accounts, savings deposits or certificates of deposit, (c) if at the time permitted under the Act, obligations of any state or political subdivision thereof or any agency or instrumentality of such state or political subdivision for which cash, Government obligations or a combination thereof have been irrevocably pledged to or deposited in a segregated escrow account for the payment when due of principal or redemption price of and interest on such obligations, and any such cash or Government Obligations pledged and deposited are payable as to principal or interest in such amounts and on such dates as may be necessary without reinvestment to provide for the payment when due of the principal or redemption price of and interest on such obligations, and such obligations are rated by each Rating Agency in the highest rating category assigned by each such rating service to obligations of the same type, or (d) noncallable obligations of the United States of America or the Commonwealth of Pennsylvania. In each case such funds (i) are subject to withdrawal, maturing or payable at the option of the holder, at or prior to the dates needed for disbursement, provided such deposits or accounts, whether deposited by the City or by such depository, are insured or secured as public deposits with securities having at all time a market value exclusive of accrued interest equal to the principal amount thereof, (ii) are irrevocably pledged for the payment of such obligations and (iii) are sufficient, together with the interest to disbursement date payable with respect thereto, if also pledged, to meet such obligations in full.

"Rate Covenant" means the rate covenant contained in the 1989 General Ordinance.

"Rating Agency" means Moody's Investors Service if such rating service has issued a credit rating on Bonds and Standard & Poor's Corporation if such rating service has issued a credit rating on Bonds or, upon discontinuance of either such rating service, by such other nationally recognized rating service if such rating service has issued a credit rating on Bonds.

"Series" when applied to Bonds means collectively, all of the Bonds of a given issue authorized by Supplemental Ordinance, and may also mean, if appropriate, a subseries of any Series if, for any reason, the City should determine to divide any Series into one or more subseries of Bonds.

"Subordinated Bond" means any Bond the security interest in and pledge and assignment of Project Revenues is not on a parity with other Bonds.

"Supplemental Ordinance" means an ordinance supplemental to the 1989 General Ordinance enacted pursuant to the Act and this Ordinance by the Council of the City.

"System" means the entire combined water system and wastewater system of the City, now existing and hereafter acquired by lease, direct control, purchase or otherwise or constructed by the City, including any interest or participation of the City in any facilities in connection with said System, together with all additions, betterments, extensions and improvements to said System or any part thereof hereafter constructed or acquired and together with all lands, easements, licenses and rights of way of the City and all other works, property or structures of the City and contract rights and other tangible and intangible assets of the City now or hereafter owned or used in connection with or related to said System.

"Variable Rate Bond" means any Bond, the rate of interest on which is subject to change prior to maturity and cannot be determined in advance of such change.

"Water Commissioner" means the head of the Water Department as provided by the Philadelphia Home Rule Charter.

"Water Department" means the Water Department of the City created pursuant to Section 3-100 of the Philadelphia Home Rule Charter.

#### **Pledge of Revenues; Grant of Security Interest; Parity Bonds**

The City pledges to the Fiscal Agent in trust for the security and payment of all Bonds (other than Subordinated Bonds) issued under the 1989 General Ordinance and grants to said Fiscal Agent a lien on and security interest in (i) all Project Revenues and (ii) all amounts on deposit in or standing to the credit of the funds and accounts (other than the Rebate Fund) established by the 1989 General Ordinance together with interest earnings on amounts in such funds and accounts (other than the Rebate Fund). The Fiscal Agent shall hold and apply the security interest granted and the pledged revenues and funds described in the 1989 General Ordinance, in trust, for the equal and ratable benefit and security of all Holders of Bonds (other than Subordinated Bonds) issued pursuant to the provisions of the 1989 General Ordinance and each Supplemental Ordinance, without preference, priority or distinction of any one Bond over any other Bond (other than Subordinated Bonds); provided however that the pledge of Project Revenues and funds and accounts pursuant to the 1989 General Ordinance may also be for the benefit of a letter of credit issuer, municipal bond insurance provider, or any other person who undertakes to provide moneys for the account of the City for the payment of principal or redemption price of and interest on any Series of Bonds (other than Subordinated Bonds), on an equal and ratable basis with Bonds, to the extent provided by any Supplemental Ordinance or Determination. All Bonds issued under the 1989 General Ordinance (other than Subordinated Bonds) shall be parity Bonds equally and ratably secured by the pledge of and grant of security interest as described herein without preference, priority or distinction as to lien or otherwise, except as otherwise provided, of any one Bond over any other Bond or as between principal and interest.

#### **Establishment of Funds and Accounts**

The following funds and accounts are established by the 1989 General Ordinance:

- (a) Revenue Account (to be held by the City).
- (b) Sinking Fund (to be held by the Fiscal Agent).
- (c) Subordinated Bond Fund (to be held by the Fiscal Agent).
- (d) Rate Stabilization Fund (to be held by the City).
- (e) Capital Account (to be held by the City) as an account within the Construction Fund.
- (f) General Account (to be held by the City).
- (g) Construction Fund (to be held by the City), and within the Construction Fund, separate accounts (in addition to the Capital Account), designated as follows:
  - (i) the Existing Projects Account, into which existing proceeds, if any, of revenue bonds heretofore issued under the Act in respect of the System shall be deposited; and
  - (ii) the Bond Proceeds Account, into which proceeds of Bonds issued under the 1989 General Ordinance shall be deposited.
- (h) Rebate Fund (to be held by the City).

Notwithstanding the provisions of the 1989 General Ordinance, so long as the Sixteenth Series Bonds are outstanding, the foregoing funds and accounts shall be held by the Fiscal Agent.

#### **Transfer from Revenue Account to Other Funds and Accounts**

Project Revenues collected by the City and deposited in the Revenue Account shall be applied, to the extent available, in the following manner and in the following order of priority:

- (a) to pay Operating Expenses;
- (b) to pay principal or redemption price of and interest on Bonds (other than Subordinated Bonds), principal and interest on bond anticipation notes outstanding on the date of enactment of the 1989 General Ordinance, and principal and/or interest on Interim Debt;

(c) to pay the amount, if any, required to eliminate any deficiency in any reserve fund or account established within the Sinking Fund for the equal and ratable benefit of all Bonds (other than Subordinated Bonds);

(d) to pay the amount, if any, required to eliminate any deficiency in any reserve fund or account established within the Sinking Fund and not held for the equal and ratable benefit of all Bonds (other than Subordinated Bonds);

(e) to pay the principal or redemption price of and interest on General Obligation Bonds;

(f) to pay the principal or redemption price of and interest on Subordinated Bonds, and interest on bond anticipation notes payable by exchange for, or out of the proceeds of the sale of Subordinated Bonds;

(g) to transfer the amount determined by the Water Commissioner to be deposited in the Rate Stabilization Fund;

(h) to transfer on June 1 of each Fiscal Year (or the first business day following June 1 if June 1 is not a business day) an amount equal to the sum of (i) the Capital Account Deposit Amount, (ii) the Debt Service Withdrawal for the preceding Fiscal Year and (iii) the Operating Expense Withdrawal for the preceding Fiscal Year, less any amounts transferred during the Fiscal Year to the Capital Account from the General Account; and

(i) to transfer to the General Account, as of June 30 of each Fiscal Year, the amount, if any, remaining on deposit in the Revenue Account.

Notwithstanding the foregoing, nothing in the 1989 General Ordinance shall prevent the City from transferring amounts on deposit in any fund or account established under the 1989 General Ordinance into the Rebate Fund in the amounts and at the times specified by the 1989 General Ordinance.

#### **Sinking Fund**

The Sinking Fund is a consolidated fund for the equal and proportionate benefit of the holders of all Bonds (other than Subordinated Bonds) from time to time outstanding and may be invested and reinvested on a consolidated basis.

The Fiscal Agent shall pay out of the Sinking Fund to the designated paying agent or agents the amount required for the interest payable on Bonds (other than Subordinated Bonds) on each interest payment date and the amount required for the principal, redemption price of or prepayment payable on Bonds (other than Subordinated Bonds) on each principal payment date. The Fiscal Agent shall also pay out of the Sinking Fund the accrued interest included in the purchase price of Bonds purchased for retirement.

The City may direct the Fiscal Agent to apply amounts accumulated in the Sinking Fund with respect to Bonds subject to mandatory sinking fund redemption, to the purchase of Bonds of the Series, maturity and interest rate within each maturity, subject to mandatory sinking fund redemption.

#### **Subordinated Bond Fund**

Subject to the third paragraph of this Section, the Fiscal Agent shall apply amounts in the Subordinated Bond Fund to the payment of the principal of, redemption premium, if any, and interest on Subordinated Bonds of a Series in accordance with the provisions of, and subject to the priorities and limitations and restrictions provided in, the Supplemental Ordinance authorizing such Series of Subordinated Bonds.

At any time and from time to time the City may deposit in the Subordinated Bond Fund for the payment of the principal of, redemption premium, if any, and interest on Subordinated Bonds, amounts received from any other source (other than from Project Revenues).

If at any time the amounts in the Sinking Fund shall be less than the current requirement of such fund pursuant to subparagraphs (b) and (c) of the paragraph entitled "Transfer from Revenue Account to Other Funds and Accounts" and there shall not be on deposit in the Capital Account or General Account available moneys sufficient to cure such deficiency, then the Fiscal Agent shall withdraw from the Subordinated Bond Fund and deposit in the Sinking Fund the amount necessary (or all the moneys in said fund, if less than the amount necessary) to eliminate such deficiency.

### **Capital Account**

Amounts deposited in the Capital Account may be applied to (i) payments for the cost of renewals, replacements and improvements to the System; (ii) payments into the Sinking Fund or into any reserve fund established under a Supplemental Ordinance or into the Subordinated Bond Fund to cure a deficiency in one of the foregoing; or (iii) the purchase of Bonds if a Consulting Engineer shall first have certified to the City that amounts remaining on deposit in the Capital Account following the proposed purchase of Bonds will be sufficient to pay the cost of renewals, replacement and improvements to the System projected to be payable during such Fiscal Year; provided however, that no Bond shall be purchased at a price in excess of the principal amount and redemption price which would be applicable if the Bond were redeemed at the time such Bond was first subject to redemption.

If at any time sufficient moneys are not available for the payment of Operating Expenses, then amounts on deposit in the Capital Account may be used for the payment of Operating Expenses to the extent of the deficiency.

### **General Account**

Amounts on deposit in the General Account may be used by the City (i) to pay Operating Expenses; (ii) to fund transfers to any fund or account established hereunder or under a Supplemental Ordinance (other than the Revenue Account and the Rate Stabilization Fund); (iii) for the payment of principal, redemption premium, if any, and interest on any revenue bonds or notes (the proceeds of which were applied in respect of the System) issued under ordinances other than Supplemental Ordinances pursuant to the Act; (iv) for the payment of principal, redemption premium, if any, and interest on any general obligation bonds issued in respect of the System and adjudged to be self-liquidating on the basis of expected Project Revenues; (v) for the payment of principal, redemption premium, if any, and interest on other general obligation debt issued in respect of the System; (vi) for the payment of amounts due under capitalized leases or similar obligations relating to the System; and (vii) to fund a transfer to the City's "General Fund" in an amount not to exceed the lower of (A) all "Net Reserve Fund Earnings," as defined below, or (B) \$4,994,000. "Net Reserve Fund Earnings" shall mean the amount of interest earnings during the Fiscal Year on amounts in any reserve funds established pursuant to Supplemental Ordinances and in any reserve accounts established within the Sinking Fund and the Subordinated Bond Fund less the amount of interest earnings during the Fiscal Year on amounts in any such reserve funds and accounts giving rise to a rebate obligation pursuant to Section 148(f) of the Code.

### **Rate Stabilization Fund**

As of the effective date of the 1989 General Ordinance and as of June 30 of each Fiscal Year, the City shall transfer from the Rate Stabilization Fund to the Revenue Account the amount determined by the Water Commissioner to be deposited into Revenue Account for such Fiscal Year.

### **Construction Fund**

Proceeds of Bonds issued for capital purposes shall be deposited into the Bond Proceeds Account of the Construction Fund and disbursed according to established procedures of the City.

### **Rebate Fund**

The Rebate Fund shall be maintained for so long as any Series of Bonds is outstanding, and for sixty (60) days thereafter (or such other period as may be specified by the Code and applicable regulations), for the purpose of paying to the United States Treasury the amount required to be rebated pursuant to Section 148(f) of the Code. All amounts in the Rebate Fund, including income earned from investment of amounts in the Rebate Fund, shall be held by the City free and clear of the lien created by the 1989 General Ordinance.

### **Management and Investment of Funds and Accounts**

The moneys on deposit in the funds and accounts established under the 1989 General Ordinance, to the extent not currently required, shall be invested and secured as required by Section 9 of the Act, all at the direction and under the management of the Director of Finance or such other chief fiscal officer of the City as may hereinafter be established.



Interest earnings on amounts on deposit (i) in the Revenue Account shall be credited to the Revenue Account; (ii) in the Sinking Fund shall be credited to the Sinking Fund to the extent needed to meet Debt Service Requirements in respect of Bonds (other than Subordinated Bonds) and additional interest earnings shall be credited to the Revenue Account; (iii) in any reserve fund or reserve account of the Sinking Fund shall be credited to the reserve fund or account until such fund or account is fully funded and shall then be credited to the General Account up to the maximum amount to be transferred to the City's General Fund and shall then be transferred to the Revenue Account; (iv) in the Subordinated Bond Fund shall be credited to the Subordinated Bond Fund to the extent not needed to meet Debt Service Requirements in respect of Subordinated Bonds and additional interest earnings shall be credited to the Revenue Account or to such other fund or account established under the 1989 General Ordinance, as the City may direct pursuant to a Supplemental Ordinance; (v) in the Capital Account shall be credited to the Revenue Account; (vi) in the General Account shall be credited to the General Account or the Revenue Account, as the City shall direct; (vii) in the Rate Stabilization Fund shall be credited to the Revenue Account; (viii) in the Construction Fund shall be credited to the appropriate account of the Construction Fund or to the Revenue Account, as the City shall direct; and (ix) in the Rebate Fund shall be credited to the Rebate Fund.

#### **Rate Covenant**

The City covenants with the Holders of all Bonds outstanding under the 1989 General Ordinance that so long as any such Bonds shall remain outstanding it will, at a minimum, impose, charge and collect in each Fiscal Year such water and wastewater rents, rates, fees and charges as shall yield Net Revenues which shall be equal to at least 1.20 times the Debt Service Requirements for such Fiscal Year (recalculated to exclude therefrom principal and interest payments in respect of Subordinated Bonds); provided that such water and wastewater rents, rates, fees and charges shall yield Net Revenues which shall be at least equal to 1.00 times (i) the Debt Service Requirements for such Fiscal Year (including Debt Service Requirements in respect of Subordinated Bonds); (ii) the principal or redemption price of and interest on General Obligation Bonds payable during such Fiscal year; (iii) principal and interest on bond anticipation notes outstanding as of the date of enactment of the 1989 General Ordinance payable during such Fiscal Year (to the extent not capitalized); (iv) debt service requirements on Interim Debt payable during such Fiscal Year; and (v) the Capital Account Deposit Amount for such Fiscal Year (less any amounts transferred from the General Account to the Capital Account during such Fiscal Year).

#### **Conditions of and Provisions Relating to Issuing Bonds**

The City covenants with the Holders of all Bonds outstanding under the 1989 General Ordinance that so long as any such Bonds shall remain outstanding it will not issue any Series of Bonds under the 1989 General Ordinance without first complying with the conditions set forth in the subparagraphs (a) through (d) below and further covenants to comply with certain provisions relating to execution of documents, disposition of proceeds, issuance of refunding bonds and Subordinated Bonds;

(a) the City shall enact a Supplemental Ordinance specifying the aggregate principal amount and authorizing the issuance of such Bonds; stating that such Bonds are issued for a purpose authorized by the Act; making a finding based on the report of the Director of Finance required by Section 8 of the Act; and containing the covenant as to the payment of debt service required by Article IX, Section 10 of the Pennsylvania Constitution.

(b) The Director of Finance shall, in addition to the filing requirements of Section 12 of the Act, file with the Fiscal Agent a transcript of the proceedings authorizing the issuance of such Series of Bonds which shall include (i) a certified copy of the 1989 General Ordinance (unless previously so filed); (ii) a certified copy of the Supplemental Ordinance and the Determination specifying terms of the Series of Bonds; (iii) an executed or certified copy of the report of the Director of Finance required by Section 8 of the Act; (iv) an executed copy of the opinion of the City Solicitor required by Section 8 of the Act; (v) an executed or certified copy of the Consulting Engineer's report required by subparagraph (c) of this Section; (vi) if the Series of Bonds has been structured so that interest on such Bonds will not be excluded from the gross income of the Holders thereof for the purpose of calculating federal income tax (not taking into account collateral tax consequences associated with the holding of tax exempt bonds)



an opinion of Bond Counsel to the effect that issuance of such Series of Bonds will not adversely affect the exemption from federal income tax of interest on other Series of Bonds; (vii) a certificate of the Director of Finance that there is no default in the payment of the principal of, interest on, or premiums, if any, payable in respect of, any Bonds; that the report for the latest completed Fiscal Year required to be filed has been filed; that during such Fiscal Year the City was in compliance with the Rate Covenant; and that the City is currently in compliance with the Rate Covenant and all other covenants contained in the 1989 General Ordinance and all Supplemental Ordinances; and (viii) the opinions required by subparagraph (d) of this Section.

(c) Concurrently with the delivery to City Council of the financial report and opinion required by Section 8 of the Act as a condition to enactment of a Supplemental Ordinance authorizing a Series of Bonds, there shall be delivered to City Council a report of a Consulting Engineer setting forth the qualifications of the Consulting Engineer and containing:

(i) a statement, supported by appropriate schedules and summaries, that, on the basis of actual, if appropriate, and estimated future annual financial operations of the Project or Projects from which pledged Project Revenues are to be derived, the Project or Projects will, in the opinion of the Consulting Engineer, yield pledged Project Revenues over the amortization period of the Bonds to be issued therefor, sufficient to meet the payment or deposit requirements of (A) all expenses of operation, maintenance, repair and replacement of the Project, (B) all reserve funds required to be established out of such Project Revenues, (C) the principal or redemption price of and interest on Bonds, as the same become due and payable, for which such Project Revenues are pledged and (D) any state taxes assumed by the City to be paid on Bonds; (ii) a statement, supported by appropriate schedules and summaries, that the Net Revenues, on the basis of which the statements required by the foregoing clause (i) are made, are currently sufficient to comply with the Rate Covenant and are projected to be sufficient to comply with the Rate Covenant for each of the two Fiscal Years following the Fiscal Year in which the Bonds are issued; provided that if interest on the Bonds or a portion thereof has been capitalized, the projection shall extend to the two Fiscal Years following the Fiscal Year up to which interest has been capitalized on the Bonds or a portion thereof; and (iii) a statement that, in the opinion of the Consulting Engineer, the System is in good operating condition or that adequate steps are being taken to return it to good operating condition.

(d) The City shall cause to be filed with the Fiscal Agent (i) an opinion of Bond Counsel to the effect that (1) the Bonds have been duly issued for a permitted purpose under the Act and the 1989 General Ordinance and (2) all conditions precedent to the issuance of the Bonds pursuant to the Act and the 1989 General Ordinance have been satisfied and (ii) an opinion of the City Solicitor to the effect that all documents delivered by the City in connection with the issuance of the Bonds have been duly and validly authorized, executed and delivered and such execution and delivery and all other actions taken by the City in connection with the issuance of the Bonds have been duly authorized by all necessary actions of City Council.

#### **Disposition of Insurance Proceeds and Proceeds from the Sale of Assets**

In the event that any assets of the System are destroyed or the City shall sell any assets of the System, the City shall, if the insurance proceeds or the proceeds from the sale of assets exceed 1.5% of the depreciated value of property, plant and equipment of the System, as shown on the financial statements of the City for the preceding Fiscal Year, apply such amounts, at the direction of the Director of Finance or such other chief fiscal officer of the City as may hereinafter be established (i) to the retirement of the principal amount of debt incurred in respect of the System; (ii) to the reconstruction, repair or replacement of assets of the System; or (iii) to the making of capital additions or improvements to the System.

#### **Fiscal Agent**

The Fiscal Agent under the 1974 General Ordinance or its successor, shall be Fiscal Agent as of the effective date of the 1989 General Ordinance. The City may appoint a successor Fiscal Agent by Supplemental Ordinance to act as Fiscal Agent under the 1989 General Ordinance, and in connection with the Bonds issued under the 1989 General Ordinance. The Fiscal Agent shall also act as depository of the Sinking Fund and the Subordinated Bond Fund, and may act as paying agent and Bond Registrar.

Nothing in the 1989 General Ordinance shall be construed to prevent the City, in accordance with law, from engaging other Fiscal Agents from time to time or to engage other paying agents of the Bonds or any Series thereof in addition to, or as a successor to the Fiscal Agent. Any entity appointed by the City as Fiscal Agent under the 1989 General Ordinance shall be a trust company or national or state bank having trust powers and combined capital and surplus of at least \$50,000,000 and be qualified to serve pursuant to the Act. Any entity appointed by the City as Fiscal Agent under the 1989 General Ordinance as a successor to the Fiscal Agent shall assume all rights and obligations of the Fiscal Agent.

#### **Resignation of Fiscal Agent and Appointment of Successor**

The Fiscal Agent may resign and be discharged of the duties created by the 1989 General Ordinance by written resignation filed with the Director of Finance not less than sixty days before the date when such resignation is to take effect. Such resignation shall take effect on the day specified in such notice provided that a successor Fiscal Agent is appointed. If a successor Fiscal Agent is appointed prior to the date specified in the notice, the resignation shall take effect immediately on the appointment of such successor, and the City shall give the notices as hereinafter described.

If the Fiscal Agent or any successor Fiscal Agent resigns or is dissolved or if its property or business is taken under the control of any state or federal court or administrative body, a vacancy shall exist in the office of the Fiscal Agent, and the City shall appoint a successor within thirty (30) days of such vacancy and shall mail notice of such appointment to the Bondholders and to the registered depositories at their registered addresses by first class mail, postage prepaid, within thirty (30) days of such appointment.

#### **Defaults and Statutory Remedies**

If the City shall fail or neglect to pay or to cause to be paid the principal of, redemption premium, if any, or interest on any Bond or any Series of Bonds issued under the 1989 General Ordinance, whether at stated maturity or upon call for prior redemption, or if the City shall fail to comply with any provision of any Bonds or with any covenant of the City contained in the 1989 General Ordinance, then, under and subject to the terms and conditions stated in the Act, the Holder or Holders of any Bond or Bonds shall be entitled to all of the rights and remedies, including the appointment of a trustee, provided in the Act; provided, however, that the remedy provided in Section 20(b)(4) of the Act may be exercised only upon the failure of the City to pay principal (including principal due as a result of a scheduled mandatory redemption) and interest on a Series of Bonds.

Any decree or judgment for the payment of money against the City by reason of default under the 1989 General Ordinance shall be enforceable only against the Project Revenues and the investments thereof and amounts on deposit in the funds and accounts (other than the Rebate Fund) established under the 1989 General Ordinance, and no decree or judgment against the City upon an action brought under the 1989 General Ordinance shall order or be construed to permit the occupation, attachment, seizure, or sale upon execution of any other property of the City.

#### **Conveyance and Assignment, Assumption and Release**

Nothing in the 1989 General Ordinance shall prevent the City from conveying and assigning to a municipal authority created pursuant to the Municipality Authorities Act of 1945, as amended, or an authority created pursuant to any other applicable statute or to another entity (the "Authority") all or substantially all (or less than substantially all, as provided below) of its right, title and interest in the System and thereupon becoming released from all of its obligations under the 1989 General Ordinance, under any Supplemental Ordinance and under the Bonds (i) if the Authority assumes in writing the City's obligations (1) to operate or cause the System to be operated and to maintain or cause the System to be maintained in good condition; and (2) to pay the principal, redemption premium, if any, and interest on all Bonds issued pursuant to the 1989 General Ordinance and then outstanding according to the terms thereof; and (ii) if the instrument of assumption provides the Bondholders or the trustee or entity serving in a similar capacity and acting on behalf of the Bondholders with substantially all of the rights and remedies provided in this Ordinance and the Act; provided, however, that before the City may consummate such a conveyance and assignment and obtain a release of its obligations under the 1989 General Ordinance, under any Supplemental Ordinance and under the Bonds, the following conditions shall have been satisfied:

- (a) the City and the Fiscal Agent shall have received opinions of the City Solicitor, counsel to the Authority, and Bond Counsel regarding certain matters as provided in the 1989 General Ordinance;
- (b) the Authority shall, concurrently with the conveyance, assignment, assumption and release described above, grant to the trustee or entity serving in a similar capacity and acting on behalf of Bondholders a security interest in the revenues to be generated by the System following the conveyance, assignment, assumption and release equal to the security interest granted in Project Revenues;
- (c) the City and the Fiscal Agent shall have received a report of a Consulting Engineer and a verification of such report by a second Consulting Engineer, concluding that for each of the three 12 month periods following the conveyance, assignment, assumption and release described above or for each of the three fiscal years of the Authority commencing with the first full fiscal year of the Authority following the conveyance, assignment, assumption and release described above, the System is projected to generate revenues in an amount which, after subtracting projected operating expenses (determined in accordance with generally accepted accounting principles and attributable to the System) will be equal to at least 1.00 times the Debt Service Requirements (as defined in subparagraph (f) and at least 1.20 times the Debt Service Requirements (as defined in subparagraph (f) but calculated to exclude Debt Service Requirements in respect of Subordinated Bonds and General Obligation Bonds which continue to be outstanding after such transfer) for each of said 12 month periods or fiscal years, as the case may be;
- (d) the Authority shall have the authority to establish and shall have established and shall have agreed to maintain rates and charges in connection with the operation of the System at a level sufficient, in the opinion of a Consulting Engineer, as verified by the report of a second Consulting Engineer; as contained in a report filed with the Fiscal Agent, to generate revenues in each fiscal year of the Authority in an amount which, after subtracting all operating expenses (determined in accordance with generally accepted accounting principles and attributable to the System) during such fiscal year, will be equal to at least 1.00 times the Debt Service Requirements (as defined in subparagraph (f) and debt service requirements on Interim Debt, and at least 1.20 times the Debt Service Requirements (as defined in subparagraph (f) but calculated to exclude Debt Service Requirements in respect of Subordinated Bonds and General Obligation Bonds which continue to be outstanding after such transfer) for the next succeeding fiscal year of the Authority;
- (e) the Authority shall have agreed to maintain rates and charges in connection with the operation of the System at a level sufficient to generate revenues in each fiscal year of the Authority in an amount which, after subtracting all operating expenses (determined in accordance with generally accepted accounting principles and attributable to the System) during such fiscal year will be equal to at least 1.00 times the Debt Service Requirements (as defined in subparagraph (f) and at least 1.20 times the Debt Service Requirements (as defined in subparagraph (f) but calculated to exclude Debt Service Requirements in respect of Subordinated Bonds) for such fiscal year;
- (f) the Authority shall have agreed to incur no debt payable from revenues of the System following the conveyance, assignment, assumption and release unless it shall first have obtained a report of a Consulting Engineer, as verified by the report of a second Consulting Engineer, concluding that for each of the first two fiscal years of the Authority following the fiscal year in which the debt in question is to be incurred (or, if interest on all or a portion of the proposed debt is to be capitalized, following the Fiscal Year up to which interest has been capitalized on the debt or a portion thereof) the revenues of the Authority to be available for Debt Service Requirements (as defined below) (after subtracting therefrom all operating costs of the Authority which will reduce the availability of said revenues for Debt Service Requirements) will be equal to at least 1.00 times the Debt Service Requirements (as defined below) for such Fiscal Years and at least 1.20 times the Debt Service Requirements (as defined below but calculated to exclude Debt Service Requirements in respect of Subordinated Bonds and General Obligation Bonds which continue to be outstanding after such transfer) for such Fiscal Years. For purposes of the foregoing sentence and subparagraphs (c), (d) and (e), the phrase "Debt Service Requirements" shall have the meaning assigned to it in the section entitled "Definition of Terms Used Herein" with the exception that references to Bonds shall be deemed to include references to General Obligation Bonds which continue to be outstanding after such transfer, additional debt of the Authority payable from revenues of the System and the debt, if any, which the Authority proposes to incur;

(i) the Authority shall have agreed to incur no debt secured by a pledge of revenues of the System senior to the pledge of said revenues securing the Bonds (including Subordinated Bonds);

(j) the Authority shall have (i) deposited with the City or an agent acting on behalf of the City cash or securities of the types specified in Section 10 of the Act maturing as to the principal and premium, if any, and interest in such amounts and at such times as will insure, without consideration of any reinvestment thereof, the availability of cash sufficient to pay the principal or redemption price of General Obligation Bonds outstanding on the date of the conveyance at maturity or at a specified call date together with interest to accrue thereon to maturity or the call date or (ii) entered into an agreement with the City pursuant to which the Authority shall have agreed to make payments to the City at such times and in such amounts as will enable the City to pay the principal or redemption price of General Obligation Bonds outstanding on the date of the conveyance at maturity or at a specified call date together with interest to accrue thereon when due and payable to maturity or the call date.

The Authority shall, upon conveyance and assignment to it of the City's right, title and interest in the System, administer, finance and operate the System and, in consideration of such conveyance and transfer, may finance and pay the City compensation in amount agreed upon between the City and Authority representing the City's equity interest in the System after a fair value for such equity interest has been appropriately established by the parties.

Notwithstanding the foregoing, the City may convey to the Authority less than substantially all of its right, title and interest in the System if a Consulting Engineer shall first have certified that the assets of the System which the City proposes to exclude from the conveyance to the Authority are not material to the ability of the System to generate revenues following the conveyance.

Anything in the 1989 General Ordinance to the contrary notwithstanding, upon a conveyance of all or substantially all of the assets of the System to the Authority pursuant to this Article IX, the provisions of the 1989 General Ordinance shall no longer be enforceable against the City.

#### **Amendments and Modifications**

In addition to the enactment of Supplemental Ordinances supplementing or amending the 1989 General Ordinance in connection with the issuance of successive Series of Bonds, the 1989 General Ordinance and any Supplemental Ordinance may be further supplemented, modified or amended: (a) to cure any ambiguity, formal defect or omission in the 1989 General Ordinance or in the Supplemental Ordinance or to make such provisions in regard to matters or questions arising under the 1989 General Ordinance or under the Supplemental Ordinance which shall not be inconsistent with the provisions of the 1989 General Ordinance or of the Supplemental Ordinance and which shall not adversely affect the interests of Bondholders; (b) to grant to or confer upon Bondholders, or a trustee, if any, for the benefit of Bondholders any additional rights, remedies, powers, authority, or security that may be lawfully granted or conferred; (c) to provide for the establishment of a reserve or similar fund to be held for the benefit of one or more Series of Bonds; (d) to incorporate modifications requested by any Rating Agency to obtain a credit rating on any Series of Bonds; (e) to comply with any mandatory provision of state or federal law or with any permissive provision of such law or regulation which does not substantially impair the security or right to payment of the Bonds but no amendment or modification shall be made with respect to any outstanding Bonds to alter the amount, rate or time of payment, respectively, of the principal thereof or the interest thereon or to alter the redemption provisions thereof without the written consent of the Holders of all affected outstanding Bonds; and (f) except as aforesaid, in such other respect as may be authorized in writing by the Holders of 67% in principal amount of the Bonds outstanding and affected. If a letter of credit issuer, municipal bond insurance provider or any other person undertakes to provide moneys for the account of the City for the payment of principal or redemption price of and interest on any Series of Bonds or portion of any Series of Bonds, such provider shall be the representative of the Bondholders of such Series or portion of such Series for purposes of Bondholder consent, approval or authorization.

#### **Deposit of Funds for Payment of Bonds**

When interest on, and principal or redemption price (as the case may be) of, all Bonds issued under the 1989 General Ordinance have been paid, or there shall have been deposited with the Fiscal Agent or an entity which would qualify as a Fiscal Agent under the 1989 General Ordinance an amount, evidenced by

moneys or Qualified Escrow Securities the principal of and interest on which, when due, will provide sufficient moneys to fully pay the Bonds at the maturity date or date fixed for redemption thereof, the pledge and grant of a security interest in the Project Revenues made under the 1989 General Ordinance shall cease and terminate, and the Fiscal Agent and any other depository of funds and accounts established under the 1989 General Ordinance shall turn over to the City or to such person, body or authority as may be entitled to receive the same all balances remaining in any funds and accounts established under the 1989 General Ordinance.

If the City deposits with the Fiscal Agent or such other qualified entity moneys or Qualified Escrow Securities sufficient to pay the principal or redemption price of any particular Bond or Bonds becoming due, either at maturity or by call for redemption or otherwise, together with all interest accruing thereon to the due date, interest on the Bond or Bonds shall cease to accrue on the due date and all liability of the City with respect to such Bond or Bonds shall likewise cease. Thereafter such Bond or Bonds shall be deemed not to be outstanding under the 1989 General Ordinance and the Holder or Holders of such Bond or Bonds shall be restricted exclusively to the funds so deposited for any claim of whatsoever nature with respect to such Bond or Bonds, and the Fiscal Agent or such other qualified entity shall hold such funds in trust for such Holder or Holders.

**APPENDIX P**  
**GENERAL CORRESPONDENCE**



## CITY OF PHILADELPHIA

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Robert Vance, Esq., CHAIRMAN

Barbara J. Kaplan, EXECUTIVE DIRECTOR  
David A. Baldinger, DEPUTY DIRECTOR

March 31, 1993

Commissioner Kumar Kishinchand  
Water Department  
1101 Market Street  
Philadelphia, PA 19107


RE: City of Philadelphia Official Sewage Facilities Plan  
(PA. Act 537 Plan)

Dear Commissioner Kishinchand:

This letter is in response to your request to review the above-captioned Plan in accord with the requirements of Pennsylvania Act 537. The staff of the Philadelphia City Planning Commission has completed its review and has found the Plan to be consistent with the overall Comprehensive Plan for the City of Philadelphia.

Therefore, the staff of the City Planning Commission hereby recommends that the proposed City of Philadelphia Official Sewage Facilities Plan (PA. Act 537 Plan) be submitted to City Council for approval.

Sincerely yours,

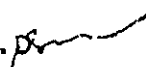
  
Barbara J. Kaplan  
Executive Director

CITY OF PHILADELPHIA  
DEPARTMENT OF PUBLIC HEALTH  
OFFICE OF THE COMMISSIONER

May 19, 1993

MEMORANDUM

TO : Kumar Kishinchand, Commissioner  
Philadelphia Water Department

FROM : Robert K. Ross, M.  
Commissioner

SUBJECT : SEWAGE FACILITIES (ACT 537) PLAN FOR PHILADELPHIA  
COUNTY

This is in response to your memorandum of March 8, 1993 requesting Health Department review of the City of Philadelphia Sewage Facilities Plan.

The revised Plan received on May 14, 1993 was reviewed and found to be consistent with the plans and programs of the Philadelphia Department of Public Health. Therefore, this plan is approved.

If I can be of further assistance, kindly let me know.

RKR/ds



Memphis, Tenn.	80/59/pc	75/55/t
Miami	85/53/s	84/71/s
Minneapolis	50/28/pc	44/34/sn
New Orleans	80/55/pc	81/64/t
New York	59/41/s	66/44/s
Orlando	87/56/s	88/66/s
Phoenix	78/57/pc	82/56/s
Portland, Maine	55/42/r	54/35/s
St. Louis	58/46/t	64/46/t
Salt Lake City	52/33/pc	59/38/pc
San Diego	76/56/s	71/56/s
San Francisco	61/48/pc	65/52/pc
Seattle	53/42/t	58/46/c
Tampa, Fla.	80/55/s	87/68/s
Washington	64/41/s	64/52/pc

## CITIES ABROAD

	YESTERDAY	TODAY
Acapulco	88/72/s	88/72/s
Amsterdam	56/44/c	56/44/sh
Athens	70/53/s	77/50/s
Auckland	68/54/pc	68/50/pc
Bangkok	94/72/t	96/72/pc
Barbados	87/75/pc	87/73/pc
Beijing	66/44/s	68/48/pc
Beirut	68/52/s	72/52/s
Berlin	50/31/pc	50/37/c
Bermuda	72/63/sh	72/63/pc
Bogota	65/50/pc	62/48/c
Brussels	57/48/c	55/48/sh
Buenos Aires	82/68/pc	79/61/sh
Cairo	84/52/s	82/54/s
Copenhagen	50/36/s	52/36/pc
Curacao	88/78/pc	88/76/pc
Dublin	53/45/sh	53/45/sh
Freeport	80/65/s	83/65/s
Geneva	58/42/sh	56/48/sh
Havana	86/62/pc	86/64/pc
Hong Kong	74/62/pc	76/62/pc
Jerusalem	70/46/s	72/48/s
Johannesburg	64/52/pc	66/54/c
Kingston	88/75/pc	88/75/pc
London	50/43/sh	56/45/c
Madrid	58/46/t	59/46/sh
Manila	90/77/sh	91/77/pc
Melbourne	72/59/sh	68/55/pc
Mexico City	82/54/s	82/54/pc
Milan	56/45/sh	56/45/c
Montego Bay	88/75/pc	88/75/pc
Montreal	48/37/c	48/32/s
Moscow	38/32/c	38/32/st
Nairobi	75/57/pc	75/55/pc
Nassau	82/62/s	84/64/s
New Delhi	94/68/s	94/66/s
Nice	58/49/sh	60/49/c
Oslo	49/29/s	51/31/s
Paris	53/42/sh	55/45/sh
Perth	78/56/s	80/54/s
Rio de Janeiro	84/75/pc	84/70/pc
Rome	64/52/sh	66/55/sh
San Juan	83/73/pc	88/75/pc
Seoul	58/42/pc	58/42/pc
Stockholm	46/25/s	49/29/s
Sydney	76/59/s	78/58/pc
Taipei	73/58/sh	78/56/pc
Tokyo	52/43/r	64/45/pc
Toronto	55/30/s	54/39/pc
Trinidad	87/75/pc	87/73/pc

Letter indications: s, sunny; pc, partly cloudy; c, cloudy; sh, showers; t, thunderstorms; r, rain; sf, snow flurries; sn, snow; i, ice.

Streets that is still the home of the one-room library.

Valuable or not, the leather-bound and somewhat weather-beaten volumes, printed with the old English type that uses an f in place of an s, are a book-lover's delight.

Among the titles are: *The Gentleman Instructed*, 1738; *The Turkish Spy*, 1741; Puffendorf's *The Complete History of Sweden*, 1702; *The Independent Whig*, 1735; Locke's *Some Thoughts Concerning Education*; Milton's *Paradise Lost* and *Paradise Re-*

Naomi Valutas, vice president of the library board, said the theory is that either Miss Engles or someone else came across the book while cleaning out a house.

"Or maybe," Valutas said, "she was just an honest person who found it on the street and just sent it back without seeking any reward. Whatever, we're glad to have it. And, you know, this was considered pretty risqué reading in those days."

Today, Darby Library has 20,000 books and serves 5,000 patrons. Al-

# Phila. man suspect in Bloomsburg rapes

BLOOMSBURG from B1 burglaries beginning in 1991, the intruder routinely rigged a rear window, enabling him to return later to commit a sexual attack, Shovlin said.

Meanwhile, DNA testing showed that the four rapes were committed by the same individual. Records at the Columbia County Probation Office showed that Lindsey, on probation for three 1991 burglaries, had the same blood type as the rapist.

There were three more burglaries in January and March of this year. And one of the victims, a female university student, surprised the intruder, who matched Lindsey's description, in her living room on Jan. 12.

The burglar escaped with several of her belongings, and police say several of the stolen items were found during a search of Lindsey's apartment Saturday.

Items taken in another recent burglary also were found in Lindsey's apartment, police said.

All that led undercover troopers to Lindsey. They began tailing him April 6, Shovlin said, and kept him under surveillance through Saturday.

They watched as he cased one of the apartments that had been recently burglarized, and a sting was set up with the female state troopers inside the home.

About 4 a.m., Lindsey entered the apartment through a back window, Shovlin said, brandishing a steak knife.

"He got the surprise of his life when two female troopers were there waiting for him," Shovlin said. "As soon as they pulled their firearms out and identified themselves, he jumped out the window."

Eight officers were waiting outside, Shovlin said, and they caught him.

Lindsey attended classes in the summer of 1990. He was accepted for the spring 1991 term, but dropped out before completing the semester, a university spokesman said.

Michael Boykin, the husband of the university's police chief, was charged in the alleged rape of a co-worker in December 1992. Authorities investigated whether Boykin could be linked to the serial rapes, but said DNA tests ruled him out.

The Associated Press contributed to this article.

## PUBLIC NOTICE

The Philadelphia Water Department has completed a draft Sewerage Facilities Plan for Philadelphia County as required by the Pennsylvania Sewerage Facilities Act (Act 537). The plan is intended to satisfy the requirements of Act 537 to identify and resolve existing sewerage problems; to avoid potential sewerage problems from new developments; and to provide for future sewerage disposal needs to protect public health and the environment. The study includes analyses of the wastewater collection and treatment process of the City of Philadelphia, as well as the City's ability to treat wastewater collected under contract from certain wholesale wastewater customers in Bucks, Montgomery and Delaware counties.

The 537 Plan concludes, that under current and projected population conditions (including contracted wholesale volumes), the city's wastewater collection system and upgraded treatment plants are sufficient for the next twenty (20) year period in meeting public health and environmental regulations. The plan also recommends focusing on additional remedial action to halt dry weather and combined sewer discharges into the city's waterways, which have a noticeable effect on stream water quality. Total cost to the Water Department's capital program budget to meet future environmental regulations is unknown at this time.

The Water Department's draft plan is available for public review at the:

Free Library of Philadelphia  
Government Publications Section  
1901 Vine Street  
During regular library hours

Water Department Library  
3rd Floor, ARA Tower  
1101 Market Street  
8:30 a.m. to 4:30 p.m., Monday through Friday

A thirty (30) day public comment period is provided from the date of this notice. Comments regarding the Water Department's draft plan should be addressed to:

Dean Kaplan, Deputy Commissioner  
Philadelphia Water Department  
5th Floor, ARA Tower  
1101 Market Street  
Philadelphia, PA 19107

For additional information regarding the draft plan, contact Joan Anne Przybylowicz, Public Affairs at 592-4900.



A

April 8, 1993

*Subscription wholesale  
w/o last line, paragraph 2*

▽

Dear ▽:

The Philadelphia Water Department has recently completed a draft sewage facilities plan for Philadelphia County as required by the Pennsylvania Sewage Facilities Act, commonly known as Act 537. The Plan is intended to meet Act 537's mandate for consistent and appropriate planning for wastewater treatment capacity in order to identify current and future needs, protect natural resources, and protect public health.

The state Department of Environmental Resources (DER) has requested that the Water Department inform affected parties of the availability of the draft 537 Plan, including any political subdivisions served under wholesale agreements with the Philadelphia Water Department. Because ▽ is served under our contractual agreement with ▽, I am hereby notifying you of the availability of the Plan and requesting your comment, if any, within 30 days of the date of this letter.

Because your sewage planning needs are addressed in detail by your county's 537 Plan and our draft is largely concerned with planning for future sewage requirements within Philadelphia, only limited sections may be of concern to ▽. Accordingly, I have attached selected pages of the report which include material of interest to wholesale customers. A copy of the full draft 537 Plan is available for your inspection at the Philadelphia Water Department's Library, 3rd Floor, ARA Tower, 1101 Market Street, Philadelphia, PA 19107, from 8:30 a.m. through 4:30 p.m. on normal business days. In addition, a copy is on reserve at the main branch of the Philadelphia Free Library, 1900 Vine Street, Philadelphia, PA 19103, on Mondays through Wednesdays from 9:00 a.m. to 9:00 p.m., on Thursdays and Fridays from 9:00 a.m. to 6:00 p.m., on Saturdays from 9:00 a.m. to 5:00 p.m. and on Sundays from 1:00 p.m. to 5:00 p.m.

(B)  
April 8, 1993

▽

*Debra Ann Holcomb*

Dear ▽:

The Philadelphia Water Department has recently completed a draft sewage facilities plan for Philadelphia County as required by the Pennsylvania Sewage Facilities Act, commonly known as Act 537. The Plan is intended to meet Act 537's mandate for consistent and appropriate planning for wastewater treatment capacity in order to identify current and future needs, protect natural resources, and protect public health.

The state Department of Environmental Resources (DER) has requested that the Water Department inform affected parties of the availability of the draft 537 Plan, including wholesale customers and any political subdivisions served under wholesale wastewater agreements with the Philadelphia Water Department. Because of our contractual agreements with ▽, I am hereby notifying you of the availability of the Plan and requesting your comment, if any, within 30 days of the date of this letter. As required by the DER, similar letters are being sent to the political subdivisions you serve, including ▽.

Because your sewage planning needs are addressed in detail by your county's 537 Plan and our draft is largely concerned with planning for future sewage requirements within Philadelphia, only limited sections may be of concern to ▽. Accordingly, I have attached selected pages of the report which include material of interest to wholesale customers. A copy of the full draft 537 Plan is available for your inspection at the Philadelphia Water Department's Library, 3rd Floor, ARA Tower, 1101 Market Street, Philadelphia, PA 19107, from 8:30 a.m. through 4:30 p.m. on normal business days. In addition, a copy is on reserve at the main branch of the Philadelphia Free Library, 1900 Vine Street, Philadelphia, PA 19103, on Mondays through Wednesdays from 9:00 a.m. to 9:00 p.m., on Thursdays and Fridays from 9:00 a.m. to 6:00 p.m., on Saturdays from 9:00 a.m. to 5:00 p.m. and on Sundays from 1:00 p.m. to 5:00 p.m.

PHILADELPHIA WATER DEPARTMENT  
APR 11 1993  
C  
April 8, 1993

*Barry & L. M. H. H.*

▽

Dear ▽:

The Philadelphia Water Department has recently completed a draft sewage facilities plan for Philadelphia County as required by the Pennsylvania Sewage Facilities Act, commonly known as Act 537. The Plan is intended to meet Act 537's mandate for consistent and appropriate planning for wastewater treatment capacity in order to identify current and future needs, protect natural resources, and protect public health.

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## Received Letter A:

Bensalem Township

Lower Southampton Municipal Authority

Lower Moreland Township

Upper Darby Township

## Received Letter B:

Abington Township

Bucks County Water &amp; Sewer Authority

Cheltenham Township

## Received Letter C:

Borough of Rockledge

Bensalem Township  
Bristol Township  
Falls Township  
Hulmeville Borough  
Langhorne Borough  
Lower Makefield Township  
Lower Southampton Township  
Middletown Township  
Newtown Borough  
Newtown Township  
Northampton Township  
Perkiomen Borough

Abington Township  
Jenkintown Borough

Received Letter B (cont'd):

DELCORA

Lower Merion Township

Springfield Township

Received Letter C (cont'd):

Norwood Borough  
Glenolden Borough  
Swarthmore Borough  
Haverford Township  
Radnor Township  
Newtown Township  
Morton Borough  
Rutledge Borough

Prospect Park Borough  
Ridley Park Borough  
Darby Township  
Upper Darby Township  
Ridley Township  
Springfield Township  
Maple Township  
Nether Providence Township  
Upper Providence Township  
Tinicum  
Eddystone Borough  
Folcroft Borough

Radnor Township  
Haverford Township  
Borough of Narberth

Cheltenham Township  
Upper Dublin Township  
Whitemarsh Township



Ref. File: BT-1

**UNITECH ENGINEERS, INC.**

*Consulting Engineers & Surveyors*

PENNA. OFFICE  
654 N. WOODBOURNE ROAD  
LANGHORNE, PA 19047  
(215) 752-2240  
FAX (215) 752-4745

April 27, 1993

Mr. Dean Kaplan, Deputy Commissioner  
City of Philadelphia  
Water Department  
ARA Tower at Reading Center  
1101 Market Street  
Philadelphia, PA 19107-2994

Reference: Draft Sewage Facilities Plan  
(Act 537 Plan) for Philadelphia, County

Dear Mr. Kaplan:

Reference is made to your letter dated April 8, 1993, to Mr. Joseph Szafranski, Chairman, Bristol Township Authority, Bristol Township, Bucks County, PA pertaining to the above referenced subject. On behalf of the Authority, we reviewed your attached selected pages of the Draft Sewage Facilities Plan. Based on our review, we have one comment/clarification to make regarding a statement in the second paragraph of Section 3.2.3, Page 3-43. This statement says that "For Planning Purposes, the short-term agreements are assumed to continue since there is no indication that any of the municipalities/authorities are considering alternative treatment and disposal systems." In this regard it should be noted that during December, 1989, Bristol Township adopted the Sewage Facilities Plan (Act 537 Plan) prepared by Unitech Engineers, Inc. by resolution. A sewer service area of the Bristol Township Authority was the base sewage facilities planning area. The Plan has been reviewed by the Bucks County Planning Commission and the Bucks County Health Department. The Plan has not yet been formerly approved by the PA DER.

The recommended wastewater management alternative of the Bristol Township Act 537 Plan is a diversion of wastewater flows from the subdistricts 3 and 4 and Keystone Industrial District of the Bristol Township Authority's sewer service area to the Bristol Township wastewater treatment plant. In order to accommodate the proposed diversion, a rerating of the plant from 2.25 MGD to 3.0 MGD has been recommended. Presently, wastewater generated in these districts is conveyed to the City of Philadelphia's Northeast Wastewater Treatment Plant by the Neshaminy Interceptor of the Bucks County Water and Sewer Authority. A copy of the executive summary of the Township's

UNITECH ENGINEERS INC.

Ref. File: BT-1  
Mr. Dean Kaplan  
April 27, 1993  
Page Two

Act 537 Plan is attached for your information. Reference to this Plan can also be found on Page 11 (under the section titled Wastewater Facilities Plan) of Bucks County Wastewater Facilities Plan Volume II - Analysis and Recommendations - Falls Area, prepared by the Bucks County Planning Commission, January, 1991 (please refer to enclosed pages 9 thru 11 of the Bucks County Wastewater Facilities Plan).

If you should have any questions or need any additional information, please do not hesitate to call us.

Very truly yours,

UNITECH ENGINEERS, INC.

  
S.J. Campbell, P.E.

SJC/VSR/mg

Enclosures:

cc: Joseph Szafranski, Chairman, BTA



**TOWNSHIP  
OF  
LOWER MERION**

MONTGOMERY COUNTY



TOWNSHIP ENGINEER

75 E. Lancaster Ave.  
Ardmore, Pa. 19003  
Telephone: (215) 649-4000

0800-204.29(139)

May 4, 1993

Mr. Dean Kaplan, Deputy Commissioner  
City of Philadelphia Water Department  
ARA Tower at Reading Center  
1101 Market Street  
Philadelphia, PA 19107-2994

Re: 537 Sewage Facilities Plan - Your letter dated April 8, 1993

Dear Mr. Kaplan:

Thank you for the opportunity to review your 537 Plan and for sending us copies of the pages that directly pertain to the Lower Merion Township.

We offer the following comments:

- ◆ Since Lower Merion Township collects sewage from Narberth Borough, we expect that they received your notice although you didn't mention them in your letter to us.
- ◆ The Lower Merion Township's Board of Commissioners officially adopted a Revised 537 Plan on February 17, 1993. Extensive sewage facilities details are now updated and available for your use. The PaDER is performing their engineering review and we expect a final acceptance of our revised 537 Plan by mid-summer.
- ◆ Page 5-13 contains a comment that the demand for contracted sewage flows will dampen with a projected population decrease in Lower Merion Township. Actually, our township has a vigorous planned 10 year program to install public sewers in much of the previously unsewered area as described in the Revised 537 Plan. The new demand placed on the public sewerage system will most likely surpass the effects of any projected population decreases.
- ◆ Table 3.2.1 shows a contributing area for Lower Merion Township to be 12,100 acres. If these figures represent drainage areas, then Lower Merion Township may be understated. The area of Lower Merion Township is about 23.64 square miles. Additionally, parts of Haverford, Radnor and Narberth contribute. If the table is referring to the sewered areas only, then the stated average is a reasonable figure for Lower Merion Township, but parts of Haverford, Radnor and Narberth should be considered as additional areas.

If you have any questions please call me at (215) 561-0460.

Very truly yours,

Robert E. Norman, P.E.  
PENNONI ASSOCIATES  
Township Engineer

REN:dk

cc: David C. Latshaw, Township Manager

5/7  
Newtown, Bucks County, Joint Municipal Authority

P.O. Box 329 — 15 South Congress Street  
Newtown, Pennsylvania 18940

Newtown Borough

(215) 968-4109

Newtown Township

May 5, 1993

Dean Kaplan, Deputy Commissioner  
City of Philadelphia Water Department  
ARA Tower at Reading Center  
1101 Market Street  
Philadelphia, PA 19107-2994

Dear Mr. Kaplan:

RE: Philadelphia Act 537 Plan

In response to your April 8, 1993 letter, the Newtown, Bucks County, Joint Municipal Authority has reviewed the sections you transmitted from the draft Act 537 Plan for Philadelphia. Attached is a copy of a letter from our engineering consultants listing comments and questions for consideration.

Please feel free to contact me or Ed Woyden at Gannett Fleming if you have any questions.

Very truly yours,

  
Frank B. Fabian, Jr.  
Chairman

CC: Authority Members  
Newtown Township  
Newtown Borough  
Bucks Co. Water & Sewer Auth.  
Richard Danese, Jr., Esquire



**Gannett Fleming**  
ENGINEERS AND PLANNERS

GANNETT FLEMING, INC.  
Suite 100  
650 Park Avenue  
P.O. Box 60368  
King of Prussia, PA 19406  
Fax: (215) 265-8865  
Office: (215) 337-1550

May 5, 1993

Frank B. Fabian, Jr., Chairman  
Newtown, Bucks County,  
Joint Municipal Authority  
15 South Congress Street  
P.O. Box 329  
Newtown, PA 18940

Dear Frank:

City of Philadelphia  
Draft Sewage Facilities Plan  
(Act 537)

We have reviewed the information submitted to you by the City of Philadelphia pursuant to the above project. Portions of Chapters 3 and 5 of the draft plan prepared by BCM were reviewed. Supplemental information was received April 20 subsequent to our discussions with the Philadelphia Water Department. A review of the complete plan was not performed.

Based upon what we reviewed, we offer the following comments:

1. To the best of our knowledge neither the Philadelphia Water Department (PWD) or the Bucks County Water and Sewer Authority (BCWSA) had contacted the Borough, Township or Newtown Authority (NBCJMA) for wastewater flow projections for the planning period. It appears that flow projections were based upon the contractual limits in the Philadelphia-BCWSA Agreement. These may or may not be adequate for the planning period for the NBCJMA.
2. Section 5.2.2.2 of the Act 537 plan identifies 1990 average flows to the Neshaminy Interceptor to be 17.3 mgd. Table 3.2.3 reflects 1990 average daily flows to be 16.37 mgd. This should be clarified.
3. Section 5.2.2.2 states: "Based on the potential flows by the year 2000, it is expected that the agreement with the BCWSA and PWD will have to be revised to provide additional capacity." If this is the case, the BCWSA should request NBCJMA input to include current wastewater flow projections.
4. The PWD or the BCWSA should explain to the NBCJMA the reason why the Act 537 Plan is being performed at this time.

**Gannett Fleming**

Frank B. Fabian, Jr.

May 5, 1993

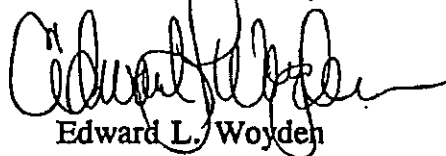
Page 2

In general, the NBCJMA, Newtown Township and Newtown Borough, should have input into the planning process for this project. The BCWSA should inform Newtown Township, Borough and Authority of the conclusions drawn and impacts of the Act 537 Plan and what effects will result.

Please call if you have any questions.

Very truly yours,

GANNETT FLEMING, INC.



Edward L. Woyden

ELW:kad

cc: A. McNamara, H. Hickey  
R. Danese



# Whitemarsh TOWNSHIP

4021 JOSHUA ROAD  
LAFAYETTE HILL, PA.  
19444-1498  
(825-3535)  
FAX 215-825-9416

April 15, 1993

**BOARD OF SUPERVISORS**  
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JOHN S. GABEL  
ROBERT WISER  
MARY-ELLEN ANTAL

Dean Kaplan  
Deputy Commissioner  
City of Philadelphia  
Water Department  
ARA Tower at Reading Center  
1101 Market Street  
Philadelphia, PA 19107-2994

RE: Philadelphia County Sewage Facilities Plan Act 537

Dear Mr. Kaplan:

Thank you for sending me sections of the draft Sewage Facilities Plan for Philadelphia County, particularly those sections relating to Whitemarsh Township.

In reviewing the sections I noted that they did not contain any reference to a 1986 Agreement between Whitemarsh Township and Springfield Township providing for additional flows from Whitemarsh Township to Springfield Township and then to the sanitary sewers of Philadelphia through the Andorra Gauging Station. That agreement provided for a discharge from Whitemarsh Township through Springfield Township of an additional .180 mgd maximum daily flow and .77 cu. ft. per second maximum rate flow. This would bring the flows at this connection to .28 mgd average day and 1.30 cfs instantaneous maximum. A copy of the agreement between Whitemarsh Township and Springfield Township is enclosed.


The agreement was subject to acceptance by the City of Philadelphia, and a copy of James Palladino's letter of November 5, 1986 offering to accept the additional flow is also attached. We understand that Springfield Township and the City of Philadelphia have had continuing negotiations on revised agreements that would incorporate, among other things, this additional flow. We have not heard from Springfield Township or the City of Philadelphia that additional flows would not be accepted, only the terms under which they would be accepted, and assume that the agreement is acceptable subject to Springfield Township and the City of Philadelphia reach agreement on the terms of the overall Sewage Agreement.

Dean Kaplan  
City of Philadelphia  
April 15, 1993  
Page Two

We believe that the 537 Plan should include a reference to the Philadelphia Water Department's offer for the additional flow, our agreement with Springfield Township, and the status of the negotiations.

If you have any questions regarding this matter, please do not hesitate to call.

Very truly yours,

  
LAWRENCE J. GREHAN  
Township Manager

LJG/e  
Enclosure

cc: Board of Supervisors  
Ross Weiss, Esquire  
Thomas F. Zarko, P.E.  
Donald Berger, Township Manager/Springfield Township



# LOWER SOUTHAMPTON TOWNSHIP

1500 DESIRE AVENUE  
FEASTERVILLE, PA 19053

(215) 357-7300  
FAX (215) 357-0946

## BOARD OF SUPERVISORS

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TOWNSHIP MANAGER

April 16, 1993

Mr. Dean Kaplan  
Deputy Commissioner  
City of Philadelphia  
Water Department  
ARA Tower at Reading Center  
1101 Market Street  
Philadelphia, Pa. 19107-2994

Dear Mr. Kaplan:

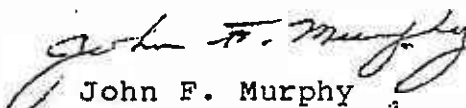
This is in response to your letter of April 8 regarding the draft Act 537 sewage facilities plan for Philadelphia County.

We have reviewed the draft as it pertains to our Township, and have found it to be informative and accurate.

Thank you for sending those sections of the draft which are of interest to us.

Sincerely,

LOWER SOUTHAMPTON TOWNSHIP

  
John F. Murphy  
Director of Public Works

JFM/rab

# MEMORANDUM

May 20, 1993

## Response to comments from Tributary Municipalities

Letters were sent out to ten contributing municipalities requesting comments on the draft Act 537 plan. Responses were received from five of them. Of those the following had comments that have been addressed below:

Bristol Township noted that in December 1989 they adopted an Act 537 Plan, which has not yet been approved by PADER. Any effect on the Philadelphia system will be evaluated after the Township Plan has been formally approved.

The Township of Lower Merion noted that in February 1993 they adopted an Act 537 Plan, which has not yet been approved by PADER. Any effect on the Philadelphia system will be evaluated after the Township Plan has been formally approved. The contributing area shown on Table 3.2.1 of the Philadelphia Plan refers to Lower Merion and Narberth. The portions of Haverford and Radnor that are contributory to Philadelphia are included in the table under the Upper Darby and DELCORA tabulations.

## Newtown Bucks County Joint Municipal Authority.

- |            |   |
|------------|---|
| Comment 1. | Projections for this planning effort were indeed based on contractual limits which were considered adequate.                        |
| Comment 2. | The discrepancy between average flows shown on Table 3.2.3 and in the text have been corrected.                                     |
| Comment 3. | The PWD agrees that there should be some discussion on this issue.  |
| Comment 4. | The PWD is currently being petitioned by PADER to conduct and prepare the County of Philadelphia/City of Philadelphia Act 537 Plan. |

An additional response comment was received from Whitemarsh Township, which contributes to Philadelphia through Springfield Township. The text has been revised to include reference to an updated agreement between the two townships.



Engineers, Planners, Scientists and Laboratory Services  
One Plymouth Meeting • Plymouth Meeting, PA 19462 • Phone: (215) 825-3800





COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL RESOURCES

FIELD OPERATIONS - WATER MANAGEMENT PROGRAM  
Lee Park, Suite 6010  
555 North Lane  
Conshohocken, PA 19428  
215 832-6130

APR. 29 1993

Leonard K. Bernstein, Coordinator  
City of Philadelphia  
Water Department  
ARA Tower at Reading Center  
1101 Market Street  
Philadelphia, PA 19107-2994

Re: Act 537 Plan  
Advisory Review  
City of Philadelphia  
Philadelphia County

Dear Mr. Bernstein:

On March 9, 1993 this office received your Proposed Official Sewage Facilities Plan of the City of Philadelphia, Philadelphia County, entitled "City and County of Philadelphia, Act 537 Plan, Volumes 1 and 2", as prepared by BCM Engineers, Inc., dated March 1993. This plan is being submitted to this Department in accordance with the provisions set forth by Section 5 of the Pennsylvania Sewage Facilities Act and Chapter 71, the Administration of Sewage Facilities Program.

A preliminary review has indicated that the plan is not in accordance with the provisions set forth in Chapter 71 for the following reasons:

First, you are hereby advised that this review is consultative only and not official. Also, this review is not a final action by the Department.

Second, there are several "paper items" which are missing from the submission. These items, listed below, must be provided when the "official" document is submitted to the Department.

The missing items include:

1. Act 537 Plan Content Checklist - At our March 26, 1993 meeting we distributed copies of the Department's "A Guide for Preparing Act 537 Update Revisions". While we urge the City of Philadelphia to consider reformatting the document, as a minimum, completion of the checklist showing how all relevant issues have been included in the plan will be required.

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Leonard K. Bernstein, Coordinator

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2. City of Philadelphia Planning Commission comments:
3. Response to comments of the Planning Commission:
4. Philadelphia County Health Department comments:
5. Response to comments of the Health Department:
6. Comments from the Four County Planning Commissions for which the City provides service:
7. Response to comments of County Planning Commissions:
8. Proof of publication in a local newspaper:
9. Response to comments of public review:
10. Proof of solicitation for comments by all tributary municipalities:
11. Response to comments of tributary municipalities:
12. Resolution of adoption from the Philadelphia City Council:

Third, there are several editorial comments which must be addressed prior to the "official" submission:

1. On page 2-7, figure 2.2-2 - Philadelphia Regional Service Area shows Easttown Township as part of the DELCORA system. Easttown Township is not part of DELCORA and is tributary to the Valley Forge Sewer Authority system. There may be other such instances that must be brought to the tributary municipalities for their confirmation.
2. On page 2-11, we believe the quoted Bucks County Wastewater Facility Plan Volume I, was withdrawn therefore, not relevant.
3. On page 3-34, we believe the listing of tributary municipalities is not complete. For example, the Bucks County Sewer and Water Authority also transports flows from Langhorne Manor Borough.
4. On page 3-44, it would be helpful if a table could be included that shows "Agreement Entity", "Capacity (MGD) covered by Agreement", "Termination Date of Agreement", "Status of Agreement", and "Status of Renewal"

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Leonard K. Bernstein, Coordinator

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5. On page 3-58, Table 3.4.5 is missing indication of units, we assume its acres, please confirm.
6. On page 4-34, the "Regulator Types" listing should be expanded to include identification of the 175 regulators and 23 diversion chambers.
7. On page 4-56, Table 4.3.8 is missing a summary line.
8. On page 4-67, Table 4.3.11 is missing a summary line.
9. On page 5-19 through 5-21, figures 5.3-1 through 5.3-3, it is difficult to distinguish between the charted flows, please clarify.
10. On page 6-2, a table is provided, however, can not identify the table number because of its location on the paper and binder holes.
11. On page 7-13, the Capital Improvement Program is missing a label.

Finally, the following technical issues must be resolved prior to the "official" submission.

1. On page 2-4, the plan states "The City of Philadelphia has indicated, for work plan purposes, that the only improvements currently being planned are for modifications (rehab) to the primary clarifiers at the NEWCPP". The plan is missing conclusions about the need to improve, expand or repair other parts of the City's sewer system, such as the combined sewer overflows.
2. On page 2-23, the wastewater flow and strength numbers presented do not correlate with the design studies and WQM Part II permits on record with the Department. Also, the information for SEWPCP is missing. Please re-examine the information and provide the design organic loading in pounds and concentration for all 3 facilities.
3. On page 2-28, under the discussion of infiltration/inflow, what is planned to be done to remove excessive I/I from the collection and conveyance systems, at least in the areas where the storm and sanitary lines are separated?
4. On page 2-31, what is the current status of land use planning in the City? It appears that the land use plan is twenty year's old. Have any of the land use plans 10 year projections become a reality?:
5. On page 4-1 through 4-9 regarding on-lot disposal systems, the submission does not provide an adequate basis for future planning of

APR 29 1993

Leonard K. Bernstein, Coordinator

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these types of system. A mechanism of prioritizing the need for adequate sewerage facilities to areas of concentrated malfunctions is needed. Incorporating comments of the Philadelphia County Health Department will be necessary.

6. On page 4-12, the "Interceptors" section should include a listing of each segment's capacity, reserve capacity, capacity shortfalls and planned corrective actions.
7. On page 4-18, regarding the basis for interceptor design flow, additional details must be provided to support the use of 120 gallons per person and 2,000 gallons per day per acre of infiltration.
8. On page 4-21, additional explanation is needed regarding the diversion chambers, such as whether or not they are permanently fixed to divert flows to specific treatment facilities and a discussion of flow management.
9. On pages 4-21 through 4-33, regarding pump stations, overflows from pump stations must be addressed in this submission. Possible corrective actions include dual feed power or emergency generator back-up. Definitive plan of action for each pump station with documented overflow problems must be provided. Also, it appears the list of pump stations may not be complete, i.e. the new prison pump station off State Road or Center City buildings, subways, etc.
10. On page 4-35, regarding the combined sewer overflows, are the hydraulic cylinders that are tied into the City's potable water supply, which operate some of the CSO's property segregated to prevent cross contamination? The submission must include an evaluation of alternative corrective action plans such as replacing the water hydraulics with oil systems, a selection of an alternative and a schedule for implementation.
11. On page 4-42, discussions about the Chapter 94 situation must utilize recently agreed to numbers. Discrepancies, such as found on page 4-53, must be resolved.
12. On page 5-1, please clarify whether or not the hydraulic design capacity of the SEWPCP was downsized as a result of the 1980 population projections.
13. On page 5-5, please compare 1990 U.S. Census data to the City's Planning Commission data, the Delaware Valley Regional Planning Commission data and tributary municipalities population data.

APR 29 1993

Leonard K. Bernstein, Coordinator

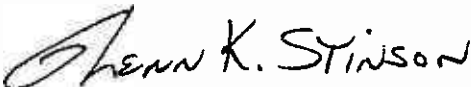
- 5 -

14. On page 5-3 and 5-4, the categorical use section appears to be based on outdated information. Please update and re-evaluate.
15. On page 5-9, the selected highlights of the potential development projects in Center City did not include Spectrum II. Please clarify why this project is not listed.
16. On page 5-16, please identify any streams which may have been incorporated into the sewer collection system.
17. On page 6-30, please indicate the long range plans for the sludge lagoons at the NEWPCP and the SWWPCP.
18. On page 7-10, the Department expects the methane facilities to be completed by May 1993. Please clarify the statement "not expected to occur for at least two years".

In summary, while the plan presents much good information, many other details need clarification and expansion. In particular, we wish to stress the need for the City to be very clear in the final plan as to the specific activities proposed for implementation including funding strategies and implementation periods. Other activities not proposed for immediate implementation should be prioritized and dates for initiation of future studies included.

When the necessary corrections and additions have been completed, as listed above, this Department will initiate a review in accordance with the provisions of Chapter 71, Administration of the Sewage Facilities Program.

Very truly yours,

  
GLENN K. STINSON, R.S.  
Sewage Facilities Consultant

cc: Mr. Furlan  
Philadelphia Planning Commission  
Philadelphia Health Department  
BCM, Mr. Graber  
Planning Section  
Re 30 (KAL)116.3/.1



# BCM Engineers Inc.

Engineers, Planners, Scientists and Laboratory Services

One Plymouth Meeting • Plymouth Meeting, PA 19462 • (215) 825-3800 • FAX (215) 834-8236

May 20, 1993

Department of Environmental Resources  
Field Operations, Waste Management Program  
Lee Park, Suite 6010  
555 North Lane  
Conshohocken, PA 19428

Attention: Mr. Glenn K. Stinson, R.S.  
Sewage Facilities Consultant

Subject: City of Philadelphia Act 537 Plan  
Response of PADER Advisory Review  
BCM No. 00-0740-0201

Gentlemen:

On behalf of the City of Philadelphia and the Philadelphia Water Department (PWD), we hereby respectfully submit the following information for your review and approval. Responses have been made point by point to PADER review comments by letter to Mr. Bernstein of the PWD dated April 29, 1993. As appropriate, these responses have been structured to revise the subject Act 537 Plan document, and are so stated. The comments have been categorized into three different areas as follows:

## I. MISSING ITEMS

**Comment 1.** Act 537 Plan Content Checklist - At our March 26, 1993 meeting we distributed copies of the Department's "A Guide for Preparing Act 537 Update Revisions". While we urge the City of Philadelphia to consider reformatting the document, as a minimum, completion of the checklist showing how all relevant issues have been included in the plan will be required.

**Response 1.** This checklist has been developed by PADER subsequent to our initiation and development of the City of Philadelphia Act 537 Plan. While the Plan's Task Activity Report was approved by PADER in May 1990, this guide, in checklist format, was not published until November 1992 and not provided to the PWD until the Philadelphia

Plan was substantially complete. Therefore, whereas it would require a significant, substantially unproductive effort to reformat the City of Philadelphia Act 537, we believe that the Plan meets the Act 537 guideline requirements. Accordingly, we have attached a completed checklist to this response letter with the appropriate section number references as applicable.

This response to PADER's unofficial review has been incorporated into Appendix P, General Correspondence of the Plan. It should be understood, as was stressed with PADER at our May 1990 kickoff meeting for this Plan, that the uniqueness of this City of Philadelphia/County of Philadelphia regional Plan must be acknowledged in reviewing the requirements of this checklist and comparing same to the goals and objectives of this Act 537 Plan for the City of Philadelphia.

**Comment 2  
through 7.**

**Planning Commission and Health Department Comments and Responses:**

**Response 2  
through 7.**

The comments of the Planning Commissions and the City of Philadelphia Health Department have all been solicited and both comments and appropriate responses are incorporated into Appendix P of the Act 537 Plan.

**Comments 8  
and 9.**

**Proof of publication in a local newspaper and responses to the public's written comments:**

**Response 8  
and 9.**

Incorporated into Appendix P is a copy of the Proof of Publication, for purposes of acknowledging the 30 day public comment period. This public comment period commenced on May 14, 1993; no written comments were received on the Plan.

**Comments 10  
and 11.**

**Proof of Solicitation for Comment of Tributary Municipalities and Response thereto:**

Responses 10  
and 11.

Incorporated into Appendix P is a copy of the sample letter and a list of all municipalities to which the letters were sent. The PWD received comments from four municipalities at the time of this letter. Appropriate responses have also been included.

Comment 12.

**Resolution of Adoption from the Philadelphia City Council:**

Response 12.

The City Council of the City of Philadelphia, by the time of official submission of the Act 537 Plan to PADER will have adopted the subject Plan as its Official Act 537 Plan by municipal resolution. A copy of the enacted resolution will be included in Appendix Q of the Plan.

## II. EDITORIAL COMMENTS

Comment 1.

**On page 2-7, figure 2.2-2 - Philadelphia Regional Service Area shows Easttown Township as part of the DELCORA system. Easttown Township is not part of DELCORA and is tributary to the Valley Forge Sewer Authority system. There may be other such instances that must be brought to the tributary municipalities for their confirmation.**

Response 1.

The Draft Act 537 Plan's figure 2.2-2 represented the regional City of Philadelphia WPCP service area via prior graphics. After further investigation and contact of the appropriate Authority, it appears that only 3 to 4 homes in Easttown Township are serviced by the Philadelphia WPCP system. We have revised this figure accordingly in the Official Act 537 Plan.

Comment 2.

**On page 2-11, we believe the quoted Bucks County Wastewater Facility Plan Volume I, was withdrawn therefore, not relevant.**

Response 2.

It is our understanding that the quoted Bucks County Wastewater Facility Plan is available but was not submitted for formal approval. However, our purposes for referencing herein were simply literary credits; the material excerpted pertains to Federal and State water pollution control regulations which are not affected by any rescinding of the referenced Bucks County Plan. We have however, deleted reference herein to avoid further confusion.

Comment 3.

**On page 3-34, we believe the listing of tributary municipalities is not complete. For example, the Bucks County Sewer and Water Authority also transports flow from Langhorne Manor Borough.**



- Response 3. We have rechecked our sources and have indeed found that Langhorne Manor Borough is missing from this specific listing in the Draft Act 537 Plan. This has been corrected in the official Act 537 Plan; please note however, that other references to Langhorne Manor Borough are already included in this Plan.
- Comment 4. On page 3-44, it would be helpful if a table could be included that shows "Agreement Entity", "Capacity (MGD) covered by Agreement", "Termination Date of Agreement", "Status of Agreement", and "Status of Renewal".
- Response 4. In order to accommodate PADER and provide the requested additional information, we have developed an additional table, Table 3.2.2, and have revised the text in this subsection accordingly.
- Comment 5. On page 3-58, Table 3.4.5 is missing indication of units, we assume its acres, please confirm.
- Response 5. The units are indeed acres and the Table has been revised to reflect this.
- Comment 6. On page 4-43, the "Regulator Types" listing should be expanded to include identification of the 175 regulators and 23 diversion chambers.
- Response 6. The text has been revised to reflect a reference to detailed listings of the CSO's, which appear in Appendix H.
- Comment 7. On page 4-56, Table 4.3.8 is missing a summary line.
- Comment 8. On page 4-67, Table 4.3.11 is missing a summary line.
- Responses 7 and 8. Summary information has been incorporated.
- Comment 9. On page 5-19 through 5-21, Figures 5.3-1 through 5.3-3, it is difficult to distinguish between the charted flows, please clarify.
- Response 9. Figures have been revised for clarification purposes.
- Comment 10. On page 6-2, a table is provided, however, can not identify the table number because of its location on the paper and binder holes.

Response 10. Table has been realigned.

Comment 11. On page 7-13, the Capital Improvement Program is missing a label.

Response 11. The information has been titled as Table 7.3.1 and text revised accordingly.

### III. TECHNICAL ISSUES

Comment 1. On page 2-4, the Plan states "The City of Philadelphia has indicated, for work plan purposes, that the only improvements currently being planned are for modifications (rehab) to the primary clarifiers at the NEWCPP". The Plan is missing conclusions about the need to improve, expand, or repair other parts of the City's sewer system, such as the combined sewer overflows.

Response 1. The above excerpt from the Act 537 Plan indicated that, at the time the work plan was being developed for this report, the modifications (rehabilitation) to the Primary Clarifiers at the NEWPCP was the only significant capital project identified by the PWD which had progressed from the planning phase into not only the design, but indeed the construction phase. Indeed, this Act 537 Plan, in Sections 4, 5, 6 and 7, delves into the evaluation of existing facilities, projection of future conditions, identification of needs, and plan selection for each of the following individual areas:

- On-Lot Disposal Systems (Unsewered Areas)
- Collection and Conveyance Systems
- Combined Sewer Overflows (CSO's)
- Water Pollution Control Plants (WPCP's), and
- Biosolids Management

It was agreed upon with PADER at the Work Plan approval stage and stated in the Act 537 Plan (also on page 2-4), that "The County of Philadelphia Act 537 Plan is intended to serve as a general regional planning document establishing policy, goals, and the need for detailed investigations of specific long term problem areas." The Act 537 Plan does not only evaluate these other areas, but does make conclusions as to immediate needs, in most cases additional study where problems have been identified. These conclusions are clearly stated in Section 7.2 of the Act 537 Plan.

**Comment 2.** On page 2-23, the wastewater flow and strength numbers presented do not correlate with the design studies and WQM Part II permits on record with the Department. Also, the information for SEWPCP is missing. Please re-examine the information and provide the design organic loading in pounds and concentration for all 3 facilities.

**Response 2.** This section of the Act 537 Plan, 2.5.1.4., Revisions to the Wastewater Flow and Strength Projections for the Northeast and Southwest Water Pollution Control Plants, for the Philadelphia Water Department, is specific in its' objective of factually reviewing this specific prior planning document. Based upon the report we reviewed, this information is correct.

It is possible that these figures do not agree with the WQM Part II permits on record, which were not reviewed as a part of this study. However, the current permitted and design values have been included in the Act 537 Plan, in Section 4.3 and 5.3 (Table 5.3.7). We have also reviewed these numbers for consistency with the NPDES permit values. Finally, there were no revised loadings presented in the subject 1983 report for the Southeast WPCP.

**Comment 3.** On page 2-28, under the discussion of infiltration/inflow, what is planned to be done to remove excessive I/I from the collection and conveyance systems, at least in the areas where the storm and sanitary lines are separated?

**Response 3.** Firstly, this portion of the report again deals only with the review of prior planning documents. However, at this time the PWD does not have any plans for attempted elimination of I/I from the separate sanitary system. The PWD believes that the existing SSES studies, although of some planning merit, cannot substantiate any future efforts focused on rehabilitation of the system specifically to effectuate I/I removal. Moreover, the question of cost effectiveness of I/I removal versus treatment is significant considering the fact that the majority of the City is a combined system and that the WPCP problems are related to inflow and stormwater, not infiltration. It is believed that the primary focus for the collection system should remain on the CSO issue, and that any I/I studies should only be undertaken in the overall context of the proposed CSO conceptual studies, which are yet to be developed.



**Comment 4.** On page 2-31, what is the current status of land use planning in the City? It appears that the land use plan is twenty year's old. Have any of the land use plans 10 year projections become a reality?

**Response 4.** As stated in Section 2.5.3 of the Plan, the two primary guidance documents for growth and development in the City of Philadelphia are the Comprehensive Plan (1960) and the Zoning Code, (1962) as amended (Chapter 14 of the Philadelphia Code)

Since 1960, the City, in lieu of making one single revision to these documents, has chosen to develop district or functional area plans for certain neighborhoods. Plans for districts such as Roxborough - Manyunk, North Philadelphia, Center City, and West Philadelphia have been completed.

Systematic revisions to the City's Zoning Code have been ongoing since the 1970's as a cooperative effort between City Council and the City of Philadelphia Planning Commission. As an example, the Center City area went through zoning revisions about two years ago.

Clearly, City Council, the Mayor, and the City Planning Commission have tried to provide for flexibility and adaptability in their planning efforts to respond to developer interest by developing focused plans. It should be noted, however, that these plans are provided only as a planning tool, often establishing only broad goals and objectives as identified in the Act 537 Plan review. Accordingly, it is not possible to gauge the accomplishment of these plans.

The text has been revised to include some of these observations and the City Planning Commission has endorsed the Plan.

**Comment 5.** On page 4-1 through 4-9 regarding on-lot disposal systems, the submission does not provide an adequate basis for future planning of these types of system. A mechanism of prioritizing the need for adequate sewerage facilities to areas of concentrated malfunctions is needed. Incorporating comments of the Philadelphia County Health Department will be necessary.

**Response 5.** Section 7.2.1 of the Draft Act 537 Plan indicated that, for various reasons, including the existence of public water supply (therefore lack of a public health issue) and the apparent low rate of reported malfunctions that PWD does not see the need to programmatically eliminate all OLDS from the City. However, realizing the limitations

of the available information, the PWD anticipates developing a more rigorous approach to evaluating these areas in a coordinated fashion with the Health Department. Section 7.0 of the Act 537 Plan will be revised accordingly.

All Health Department comments have been addressed and incorporated into the Act 537 Plan.

**Comment 6.** On page 4-12, the "Interceptors" section should include a listing of each segment's capacity, reserve capacity, capacity shortfalls, and planned corrective actions.

**Response 6.** As indicated in section 4.2.2. of the Act 537 Plan, the PWD utilizes a computer model to relate design capacity. A complete listing of each reach's capacity and shortfalls is compiled; this listing is too voluminous to include in the Act 537 Plan. Accordingly, Appendix F includes only those reaches which are "theoretically" over capacity. As discussed in the report, due to the very conservative nature of this analysis, it is recommended that flow monitoring and operations inspections be performed as a next step in this evaluation.

**Comment 7.** On page 4-18, regarding the basis for interceptor design flow, additional details must be provided to support the use of 120 gallons per person and 2,000 gallons per acre of infiltration.

**Response 7.** This basis of design has been utilized by the PWD for over 20 years, has been accepted under the EPA construction grants program, and has proven to be an acceptable basis when coupled with the otherwise conservative interceptor design in the following areas:

- Designed for 110 percent of dry weather design flows
- Interceptor design based on a fraction (1/2 or 2/3) of full pipe
- Design densities (person per acre) overly conservative. See Table 4.2.3 of Act 537 for density comparison.

The basis for the infiltration allowance is unknown.

**Comment 8.** On page 4-21, additional explanation is needed regarding the diversion chambers, such as whether or not they are permanently fixed to divert flows to specific treatment facilities and a discussion of flow management.

Response 8. Additional information has been provided in the Act 537 Plan.

Comment 9. On pages 4-21 through 4-33, regarding pump stations, overflows from the pump station must be addressed in this submission. Possible corrective actions include dual feed power or emergency generator back-up. Definitive plan of action for each pump station with documented overflow problems must be provided. Also, it appears the list of pump stations may not be complete, i.e., the new prison pump station off State Road or Center City buildings, subways, etc.

Response 9. Overflows that have occurred at pumping stations are logged by the PWD and reported to PADER. All recent occurrences have been minor in duration, with the majority being caused by power failures. All PWD pumping stations either have dual feed power supply, as stated in the Act 537 Plan (two stations), or are presently covered by a service contract which provides a portable generator for standby power within two hours. This latter information has been incorporated into the Act 537 Plan.

All PWD pumping stations are incorporated into the Act 537 Plan.

Comment 10. On page 4-35, regarding the combined sewer overflows, are the hydraulic cylinders that are tied into the City's potable water supply, which operate some of the CSO's property segregated to prevent cross contamination? The submission must include an evaluation of alternative corrective action plans such as replacing the water hydraulics with oil systems, a selection of an alternative and a schedule for implementation.

Response 10. As stated on page 4-43 of the Plan, only 14 of the 175 CSO regulators in Philadelphia are of the water hydraulics type. All of these are provided with backflow preventers for cross connection control. Details of specific CSO operations and evaluations related thereto are beyond the scope of this report. The Act 537 Plan has indicated that one area of the selected plan is to conduct a detailed CSO conceptual plan. This type of evaluation will be considered a part of that study. Indeed, the EPA requirements for implementation of Best Management Practices (BMP) under the proposed draft CSO guidance documents specifically require an evaluation of operations and maintenance of CSO regulators as a part of that conceptual plan.

**Comment 11.** On page 4-42, discussions about the Chapter 94 situation must utilize recently agreed to numbers. Discrepancies, such as those found on page 4-53, must be resolved.

**Response 11.** The values presented in the Act 537 Plan are based upon our understanding of agreement for loadings which were last revised by PWD to PADER. Loading discrepancies are being addressed by PWD as indicated in Section 7.4 of this Plan. The PWD intends to petition PADER for a WPCP rerating based upon the facts that portions of the WPCP have a greater design capacity than permitted capacity.

**Comment 12.** On page 5-1, please clarify whether or not the hydraulic design capacity of the SEWPCP was downsized as a result of the 1980 population projections.

**Response 12.** Based upon our information, there was a downsizing of the SEWPCP based upon a reevaluation of the 1980 projections. However, such downsizing for the NEWPCP and SEWPCP was not documented in the same design report.

**Comment 13.** On page 5-5, please compare 1990 U.S. Census data to the City's Planning Commission data, the Delaware Valley Regional Planning Commission data and tributary municipalities population data.

**Response 13.** All agencies referenced have been utilizing 1990 U.S. Census data.

**Comment 14.** On page 5-3 and 5-4 the categorical use section appears to be based on outdated information. Please update and re-evaluate.

**Response 14.** The information utilized in the Act 537 Plan is the only available information on categorical use. None of the prior planning studies relied on this information and the classic means of gathering current information in these type studies, use of water account data, categorized by customer account type, is not available for the City. Therefore, it appears that the only feasible way of updating this information would be to conduct an extensive program of I/I studies. These efforts would, nevertheless prove of marginal utility and are certainly beyond the scope of this Plan. We do, however, believe that the analysis provided in the Act 537 Plan is still characteristic of the planning area. Finally, the significance of the updated information would be marginal, considering the relative magnitude of wet weather versus dry weather capacity issues at the WPCP's



- Comment 15:** On page 5-9, the selected highlights of the potential development projects in Center City did not include Spectrum II. Please clarify why this project is not listed.
- Response 15.** Information was not yet compiled by the Planning Commission at the time the Plan was being developed. We have now included limited information both in this section of the Plan and in Appendix M.
- Comment 16.** On page 5-16, please identify any streams which may have been incorporated into the sewer collection system.
- Response 16.** The City does not maintain a list of streams that may have been incorporated into the sewerage system. A potential list was presented in Section 3.1.5.
- Comment 17.** On page 6-30, please indicate the long range plans for the sludge lagoons at the NEWPCP and the SWWPCP.
- Response 17.** A study by a consultant was conducted regarding lagoon closure for the Water Department. However, additional information is needed in order to complete all of PADER's information requirements. Consequently, the Water Department is in the process of obtaining additional information. Once the information has been obtained, the Water Department will conduct discussions with PADER regarding the best plan for the lagoons and a time table for completion of closure.
- Comment 18.** On page 7-10, the Department expects the methane facilities to be completed by May 1993. Please clarify the statement "not expected to occur for at least two years".
- Response 18.** The methane facilities are indeed expected to be operational by May 1993. The text has been revised accordingly.



We hope this information, in conjunction with the pertinent revisions to the Act 537 Plan, will satisfy your request. If you have any questions, please contact us.

Very truly yours,

A handwritten signature in dark ink, appearing to read "Daniel A. Graber".

Daniel A. Graber, P.E.  
Senior Project Manager

A handwritten signature in dark ink, appearing to read "Thomas R. Smith".

Thomas R. Smith, P.E.  
Assistant Vice President

/spk

cc: L. Bernstein  
D. McCuster

**ACT 537 PLAN CONTENT AND ENVIRONMENTAL ASSESSMENT CHECKLIST**

For specific details covering the ACT 537 Planning Requirements, refer to Chapters 71 and 73 of the Department's Regulations.

A COPY OF THIS COMPLETED CHECKLIST MUST BE INCLUDED WITH YOUR ACT 537 PLAN. THE DEPARTMENT WILL USE THE "DER USE ONLY" COLUMN DURING THE COMPLETENESS EVALUATION OF THE PLAN. THIS COLUMN MAY ALSO BE USED BY THE DEPARTMENT DURING THE PREPLANNING MEETING WITH THE MUNICIPALITY TO IDENTIFY PLANNING ELEMENTS WHICH WILL NOT BE REQUIRED TO BE INCLUDED IN THE PLAN. ALL THE PLANNING ELEMENTS REQUIRED BY THE DEPARTMENT MUST BE ADDRESSED IN YOUR PLAN OR THE PLAN WILL BE RETURNED AS INCOMPLETE. THE PAGE NUMBER OR OTHER REFERENCE MUST BE LISTED IN COLUMN 2 OF THE CHECKLIST PRIOR TO PLAN SUBMITTAL. IF THE MUNICIPALITY DETERMINES THAT ANY ITEMS LISTED IN THIS CHECKLIST DO NOT APPLY, OR CONDITIONS STATED IN A CERTAIN PART OF THIS CHECKLIST DO NOT EXIST IN AN AREA, A COMMENT MUST BE INCLUDED IN COLUMN 2 WHICH STATES THAT THE PARTICULAR CHECKLIST ITEM WILL HAVE NO IMPACT ON THE PLAN OR THAT IT DOES NOT EXIST IN THE PLANNING AREA. WHEN INFORMATION REQUIRED AS PART OF AN OFFICIAL PLAN UPDATE REVISION HAS BEEN DEVELOPED SEPARATELY OR IN A PREVIOUS UPDATE REVISION, INCORPORATE THE INFORMATION BY REFERENCE TO THE PLANNING DOCUMENT AND PAGE. THREE COPIES OF THE COMPLETED PLAN WITH ALL ATTACHMENTS MUST BE SUBMITTED TO THE DEPARTMENT.

Municipality: City of Philadelphia County: Philadelphia  
 Local Municipal Contact Official: Leonard Bernstein Telephone Number of Official: 215-592-6367  
 Consultant: BCM Engineers Inc. Consultant's Telephone Number: 215-825-3800  
 Consultant's Contact Person: Daniel Graber  
 Title of Submission: Act 537 Plan Date Submitted: May 20, 1993

☐ 3 copies of Plan submitted to the Department (including supporting documentation)

**COMPLETENESS CHECKLIST**

DER Use Only	Indicate Page #(s) in Plan	Item Required
	<u>ii</u>	1. Table of Contents
		2. Plan Summary
	<u>Sect. 1.0</u>	A. Identify the proposed service areas and major problems evaluated in the plan. (Reference-Title 25, § 71.21.a.7.i)
	<u>Sect. 1.0</u>	B. Identify the alternative(s) chosen to solve the problems and serve the areas of need identified in the plan. Also, include any institutional arrangements necessary to implement the chosen alternative(s). (Reference-Title 25, § 71.21.a.7.ii)
	<u>Sect. 1.0</u>	C. Include the cost of implementing the proposed alternative (including the user fees) and the proposed funding method to be used. (Reference-Title 25, § 71.21.a.7.ii)
	<u>Sect. 1.0</u>	D. Identify the municipal commitments necessary to implement the plan. (Reference-Title 25, § 71.21.a.7.iii)

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	<u>Sect. 1.0</u>	E. Provide a schedule of implementation for the project which identifies the major milestones with dates necessary to accomplish the project to the point of operational status. Other milestones in the project implementation schedule should be indicated as occurring a finite number of days from a major milestone. (Reference-Title 25, § 71.21.a.7.iv)
	<u>Sect. 1.0</u>	F. Include dates for the future initiation of feasibility evaluations in the project's implementation schedule for areas proposing completion of sewage facilities for planning periods in excess of five years. (Reference-Title 25, § 71.21.b)
	<u>Appendix Q</u>	3. Original, signed and sealed Resolution of Adoption by the Municipality which contains, at a minimum, alternatives chosen and a commitment to implement plan as stated in the implementation schedule. (Reference-Title 25, § 71.31.f) Section V.F of Guidance.
	<u>Appendix P</u>	4. Evidence that the municipality has requested, reviewed, and considered comments by appropriate official; planning agencies of the municipality, planning agencies of the county, planning agencies with areawide jurisdiction (where applicable), and existing county or joint county departments of health. (Reference-Title 25, § 71.31.b) Section V.E.1. of guidance.
	<u>Appendix P</u>	5. Proof of Public Notice which documents proposed plan adoption, plan summary, and the establishment of a 30 day comment period. (Reference-Title 25, § 71.31.c) Section V.E.2 of guidance.
	<u>Appendix P</u>	6. Copy of ALL written comments received and municipal response to each comment in relation to the proposed plan. (Reference-Title 25, § 71.31.c) Section V.E.2 of guidance.
	<u>Sect. 7.4</u>	7. Project Implementation Schedule. (Provide projected milestone dates and be detailed for each existing and future needs area). (Reference - Title 25, § 71.31.d) Section F of Guidance.
	<u>Appendix A,B</u>	8. Project Implementation Ordinances (Provide existing ordinances or include the development of new ordinances in the schedule of implementation.) (Reference-Title 25, § 71.21.a.5.vi.D) Section V.F of guidance.
	<u>Appendix P</u>	9. Written documentation indicating that the appropriate agencies have received, reviewed and concurred with the method proposed to resolve identified inconsistencies within the proposed alternative and consistency requirements in 71.21.(a)(5)(i)-(iii). (Reference-Title 25, § 71.31.e) Appendix B of guidance.

## GENERAL PLAN

		I. Previous Wastewater Planning
	<u>Sect. 2.5</u> <u>Sect. 2.1.3</u>	A. Identify and analyze all existing wastewater planning that: <ul style="list-style-type: none"> <li>1. Has been previously undertaken under the Sewage Facilities Act (Act 537). (Reference-Act 537, Section 5, § d.1)</li> <li>2. Has not been carried out according to an approved implementation schedule contained in the plans. (Reference-Title 25, § 71.21.a.5.i.A - D) Section V.F of Guidance.</li> </ul>
	<u>N/A</u>	

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N/A

3. Is anticipated or planned by applicable sewer authorities. (Reference-Title 25, § 71.21.a.5.i.A) Section V.D. of Guidance.

N/A

4. Has been done through official plan revisions (planning modules) and addenda. (Reference-Title 25, § 71.21.a.5.i.A)

### B. Identify all municipal and county planning documents adopted pursuant to the Pennsylvania Municipalities Planning Code (Act 247) including:

Sect. 2.5.3

1. All land use plans and zoning maps which identify residential, commercial, industrial, agricultural, recreational, and open space areas. (Reference-Title 25, § 71.21.a.3.iv)

N/A

2. A comparison of proposed land use as allowed by zoning and existing sewage facility planning. (Reference-Title 25, § 71.21.a.3.iv)

Sect. 2.5.3

3. Zoning or in the absence of zoning subdivision regulations that establish lot sizes predicated on sewage disposal methods. (Reference-Title 25, § 71.21.a.3.iv)

Sect. 2.5.3

4. All limitations and plans related to floodplain and stormwater management and special protection areas. (Reference-Title 25, § 71.21.a.3.iv) Appendix B, Section II.F.

Sect. 2.5.3.3.1.1

5. An analysis of land use planning and zoning and its consistency with protecting environmentally sensitive areas, with special attention to: (Reference-Title 25, § 71.21.a.3.iv)

- public ground/surface water supply sources
- recreational water use areas
- groundwater recharge areas
- industrial water use
- wetlands

## II. Physical and Demographic Analysis utilizing written description and mapping:

### A. Base line mapping (All maps should show all current lots and structures).

Sect. 2.2

1. Identification of Planning Area(s), Municipal Boundaries, Sewer Authority/ Management Agency service area boundaries. (Reference-Title 25, § 71.21.a.1.i)

Sect. 3.1.5

2. Identification and Mapping of Physical Characteristics (streams, lakes, impoundments, natural conveyance channels, drainage basins in the planning area). (Reference-Title 25, § 71.21.a.1.ii)

Sect. 3.1.2

3. Soils - Analysis with description by soil type and soils mapping (with any topographic limitations) showing areas suitable for conventional on-lot systems, elevated sand mounds, and areas unsuitable for on-lot systems. (Reference-Title 25, § 71.21.a.1.iii). Mapping of Prime Agricultural Soils and locally protected agricultural soils. (Reference - Title 25, § 71.21.a.5.i.K)

Sect. 3.1.1

4. Geologic Features - Identification through analysis, mapping and their relation to existing (including areas where existing nitrate-nitrogen levels are in excess of 5 mg/l) or potential nitrate-nitrogen pollution and drinking water sources. (Reference-Title 25, § 71.21.a.1.iii)

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<u>Sect. 3.1.2</u>		5. Topography - Showing slopes that are suitable for conventional systems; slopes that are suitable for elevated sand mounds and slopes that are unsuitable for on-lot systems. (Reference-Title 25, § 71.21.a.1.ii)
<u>Sect. 3.1.7</u>		6. Potable Water Supplies - Identification through mapping, description and analysis to include available public water supply capacity and aquifer yield for groundwater supplies. (Reference-Title 25, § 71.21.a.1.vi) Section V.C. of the Guidance.
<u>Sect. 3.1.6</u>		7. Wetlands - Identify wetlands as defined in Title 25, Chapter 105 by description, analysis and mapping. Proposed collection, conveyance and treatment facilities and lines must be located and labeled, along with the identified wetlands, on the map. (Reference-Title 25, § 71.21.a.1.v) Appendix B, Section II.I.
<u>Sect. 3.4</u> <u>Sect. 5.2</u>		8. Population - List historical, current and future population figures and projections of the municipality. Discuss and evaluate any discrepancies between municipal, county, state (DER), and federal population projections as they relate to sewage facilities. (Reference-Title 25, § 71.21.a.1.iv)

### III. Existing Sewage Facilities in the Planning Area.

	A. Identify, map and describe municipal and nonmunicipal, individual and community sewerage systems in the planning area including:
<u>Sect. 4</u> <u>Sect. 4.2</u> <u>Sect. 4.3</u>	1. Location, size and ownership of treatment facilities, main intercepting lines, pumping stations and force mains including their size, capacity, point of discharge. Also include the name of the receiving stream, drainage basin, and the facility's effluent discharge requirements. (Reference-Title 25, § 71.21.a.2.i.A)
<u>Sect. 4.3.1</u> <u>Sect. 4.3.2</u> <u>Sect. 4.3.3</u>	2. A narrative and schematic diagram of the facility's basic treatment processes including the facility's NPDES permitted capacity, any remaining reserve capacity and the policy concerning the allocation of reserve capacity. (Reference-Title 25, § 71.21.a.2.i)
<u>Sect. 4.3.1.3</u> <u>Sect. 4.3.1.4</u> <u>Sect. 4.3.2.3</u> <u>Sect. 4.3.2.4</u> <u>Sect. 4.3.3.3</u> <u>Sect. 4.3.3.4</u>	3. A description of problems with existing facilities, including existing or projected overload under Title 25, Chapter 94 (relating to municipal wasteload management) or violations of a national pollutant discharge elimination system (NPDES) permit, Clean Streams Law permit, or other permit, rule or regulation of the Department. (Reference-Title 25, § 71.21.a.2.i.B)
<u>Sect. 6.1.1</u> <u>Sect. 6.1.2</u> <u>Sect. 6.1.3</u>	4. Details of scheduled or in-progress upgrading or expansion of treatment facilities and the anticipated completion date of the improvements. Also discuss the compatibility of the rate of growth to existing and proposed wastewater treatment facilities. (Reference-Title 25, § 71.21.a.4.i & ii)
<u>N/A</u>	5. A detailed description of operation and maintenance requirements and the status of past and present compliance with these requirements and any other requirements relating to sewage management programs. (Reference-Title 25, § 71.21.a.2.i.C)
	6. Ultimate disposal areas, if other than stream discharge (land application) and any applicable groundwater limitations. (Reference-Title 25, § 71.21.a.4.i & ii)

**B. Identify, map and describe areas that utilize individual and community on-lot sewage disposal and retaining tank systems in the planning area including:**

Sect. 4.1

Table 4.1-1  
Appendix E

Sect. 4.1.2

N/A

Sect. 4.1.4  
Sect. 4.3.4

Sect. 4.1.4  
Sect. 4.3.4

Sect. 4.3.4

N/A

1. The type of systems in use. (Reference-Title 25, § 71.21.a.2.ii.A)
2. A description of documented and potential public health pollution, and operational problems (including malfunctioning systems) with the systems, including violations of local ordinances, the Sewage Facilities Act, the Clean Streams Law or regulation promulgated thereunder. (Reference-Title 25, § 71.21.a.2.ii.B)
3. A comparison of the types of on-lot sewage systems installed in an area with the types of systems which are appropriate for the area according to soil, geologic conditions, topographic limitations, sewage flows, and Title 25 Chapter 73 (relating to standards for sewage disposal facilities). (Reference-Title 25, § 71.21.a.2.ii.C)
4. Conducting a well water survey to identify possible contamination by malfunctioning on-lot sewage disposal systems. Approximately 15% of the wells in the study area should be sampled. (Reference-Title 25, § 71.21.a.2.ii.B)

**C. Identify wastewater sludge and septage generation, transport, and disposal methods as it relates to sewage facilities alternative analysis including:**

1. Location of sources of wastewater sludge or septage (Septic tanks, holding tanks, wastewater treatment facilities). (Reference-Title 25, § 71.71)
2. Quantities of the types of sludges or septage generated. (Reference-Title 25, § 71.71)
3. Present disposal methods, locations, capacities, and transportation methods. (Reference-Title 25, § 71.71)

**D. Identify, map and describe areas in the municipality where unpermitted collection and disposal systems ("wildcat" sewers, borehole disposal, etc.) are in use. (Reference-Title 25, § 71.21.a.2.i.B)**

**IV. Future Growth and Development**

**A. Delineate and describe the following through map, text and analysis:**

Sect. 3.4

Sect. 3.4.3

Sect. 5.2

1. Areas with existing development or plotted subdivisions. Include the name, location, description, total number of EDU's in development, total number of EDU's currently developed, and total number of Equivalent Dwelling Units (EDUs) remaining to be developed (include time schedule for EDU's remaining to be developed). (Reference-Title 25, § 71.21.a.3.i)
2. Land use designations established under the Pennsylvania Municipalities Planning Code (35 P.S. 10101-11202), including residential, commercial and industrial areas. (Reference-Title 25, § 71.21.a.3.ii)
3. Future growth areas and population and EDU projections for these areas. (Reference-Title 25, § 71.21.a.3.iii)

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	<u>Sect. 2.5.3</u>	4. Zoning, subdivision regulations; local, county or regional comprehensive plans; and existing plans of a Commonwealth agency relating to the development, use and protection of land and water resources. (Reference-Title 25, § 71.21.a.3.iv)
	<u>Sect. 5.2</u>	5. Sewage planning required to provide adequate wastewater treatment for areas of the municipality and related to: <ul style="list-style-type: none"> <li>a. Five-year population and growth impacts on existing and proposed wastewater collection and treatment facilities which support the need for expansions of facilities within the five-year time frame. (Reference-Title 25, § 71.21.a.3.v)</li> <li>b. Ten-year population and growth impacts on existing and proposed wastewater collection and treatment facilities which support the need for expansions of facilities within the ten-year time frame. (Reference-Title 25, § 71.21.a.3.v)</li> </ul>
	<u>Sect. 5.2</u>	
<b>V. Alternatives to Provide New or Improved Wastewater Disposal Facilities</b>		
	<u>Sect. 7.1</u>	A. Identify alternatives available to provide for new or improved sewage facilities for each area of need including, but not limited to: (Reference-Title 25, § 71.21.a.4)
	<u>Sect. 5.4</u>	1. Regional Wastewater Treatment Concepts. (Reference-Title 25, § 71.21.a.4)
	<u>Sect. 7.1</u>	2. The potential for extension of existing municipal or non-municipal sewage facilities to areas in need of new or improved sewage facilities. (Reference-Title 25, § 71.21.a.4.i)
	<u>Sect. 6.2.1, 6.1</u> <u>Sect. 6.2, 6.3</u>	3. The potential for the continued use of existing municipal or non-municipal sewage facilities through one or more of the following: (Reference-Title 25, § 71.21.a.4.ii) <ul style="list-style-type: none"> <li>a. Repair. (Reference-Title 25, § 71.21.a.4.ii.A)</li> <li>b. Upgrading. (Reference-Title 25, § 71.21.a.4.ii.B)</li> <li>c. Improved operation and maintenance. (Reference-Title 25, § 71.21.a.4.ii.C)</li> <li>d. Other applicable actions that will resolve or abate the identified problems. (Reference-Title 25, § 71.21.a.4.ii.D)</li> </ul>
	<u>6.2.1, 6.1, 6.2, 6.3</u>	
	<u>6.1, 6.2, 6.3</u>	
	<u>6.1, 6.2, 6.3</u>	
	<u>N/A</u>	4. The need for new community sewage systems. (Reference-Title 25, § 71.21.a.4.iii)
	<u>N/A</u>	5. The construction of new wastewater treatment facilities. (Reference-Title 25, § 71.21.a.4.iii)
	<u>Sect. 6.2</u>	6. Repair or replacement of collection and conveyance system components. (Reference-Title 25, § 71.21.a.4.ii.A)
	<u>N/A</u>	7. Use of alternative methods of collection/conveyance to serve needs areas using existing wastewater treatment facilities. (Reference-Title 25, § 71.21.a.4.ii.B)



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| <p>_____ <u>Sect. 3.1.2, 4.1.2</u></p> <p>_____ <u>Sect. 3.1.2, 4.1.2</u></p> <p>_____ <u>Sect. 4.1.4</u></p> <p>_____ <u>Sect. 4.1.3</u></p> <p>_____ <u>Sect. 4.1.2.3, 4.1.2.4</u></p> <p>_____ <u>Sect. 4.1.3</u></p> <p>_____ <u>N/A</u></p> <p>_____ <u>N/A</u></p> <p>_____ <u>N/A</u></p> <p>_____ <u>N/A</u></p> <p>_____ <u>N/A</u></p> <p>_____ <u>N/A</u></p> <p>_____ <u>N/A</u></p> <p>_____ <u>N/A</u></p> <p>_____ <u>N/A</u></p> <p>_____ <u>N/A</u></p> <p>_____ <u>N/A</u></p> | <p>8. The continual and future use of individual and community subsurface sewage disposal system alternatives based on:</p> <p>a. Soil suitability. (Reference-Title 25, § 71.21.a.2.ii.C)</p> <p>b. Preliminary hydrogeological evaluation. (Reference-Title 25, § 71.21.a.2.ii.C)</p> <p>c. The establishment of a sewage management program. (Reference-Title 25, § 71.21.a.4.iv)</p> <p>9. The repair, replacement or upgrading of existing malfunctioning systems in areas suitable for on-lot disposal considering: (Reference-Title 25, § 71.21.a.4)</p> <p>a. Existing technology and sizing requirements of Title 25 Chapter 73. (Reference-Title 25, § 73.31 - 73.72)</p> <p>b. Use of expanded absorption areas or alternating absorption areas. (Reference-Title 25, § 73.16)</p> <p>c. Use of water conservation devices. (Reference-Title 25, § 71.73.b.2.iii)</p> <p>10. The use of small flow sewage treatment facilities, land treatment alternatives, or package treatment facilities to serve individual homes or clusters of homes based on: (Reference-Title 25, § 71.21.a.4)</p> <p>a. Discharge Requirements. (Reference-Title 25, § 71.64.d)</p> <p>b. Soil Suitability. (Reference-Title 25, § 71.64.c.1)</p> <p>c. Preliminary Hydrogeologic Evaluation. (Reference-Title 25, § 71.64.c.3)</p> <p>d. Agency or other controls over operation and maintenance requirements. (Reference-Title 25, § 71.64.d)</p> <p>11. The use of retaining tank alternatives including: (Reference-Title 25, § 71.21.a.4)</p> <p>a. Commercial, residential and industrial use. (Reference-Title 25, § 71.63.e)</p> <p>b. Designated conveyance facilities (pumper trucks). (Reference-Title 25, § 71.63.b.2)</p> <p>c. Designated treatment facilities or disposal site. (Reference-Title 25, § 71.63.b.2)</p> <p>d. Implementation of a retaining tank ordinance by the municipality. (Reference-Title 25, § 71.63.c.3)</p> <p>e. Financial guarantees when retaining tanks are used as an interim sewage disposal measure. (Reference-Title 25, § 71.63.c.2)</p> <p>f. Temporary or permanent use.</p> |
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		12. A no-action alternative which includes both short-term and long-term impacts on: (Reference-Title 25, § 71.21.a.4)
<u>      </u>	<u>N/A</u>	a. Water Quality/Public Health. (Reference-Title 25, § 71.21.a.4)
<u>      </u>	<u>N/A</u>	b. Growth potential (residential, commercial, industrial). (Reference-Title 25, § 71.21.a.4)
<u>      </u>	<u>N/A</u>	c. Community economic conditions. (Reference-Title 25, § 71.21.a.4)
<u>      </u>	<u>N/A</u>	d. Recreational opportunities. (Reference-Title 25, § 71.21.a.4)
<u>      </u>	<u>N/A</u>	e. Drinking water sources. (Reference-Title 25, § 71.21.a.4)
<u>      </u>	<u>N/A</u>	f. Other environmental concerns. (Reference-Title 25, § 71.21.a.4)
		13. Discuss the need for and implementation of a sewage management program to assure the future operation and maintenance of existing and proposed sewage facilities through:
<u>      </u>	<u>Sect. 7.2.1</u>	a. Municipal ownership or other management control over the operation and maintenance of individual on-lot sewage disposal systems, small flow treatment facilities, or other non-municipal treatment facilities. (Reference-Title 25, § 71.21.a.4.iv)
<u>      </u>	<u>Sect. 7.2.1</u>	b. Requiring scheduled inspection of on-lot sewage disposal systems. (Reference-Title 25, § 71.73.b.1)
<u>      </u>	<u>Sect. 7.2.1</u>	c. Requiring scheduled maintenance of septic and aerobic treatment tanks and associated system components. (Reference-Title 25, § 71.73.b.2)
<u>      </u>	<u>Sect. 7.2.1</u>	d. Aggressive enforcement of ordinances which require operation and maintenance and prohibit malfunctioning systems. (Reference-Title 25, § 71.73.b.5)
<u>      </u>	<u>Sect. 4.1, 7.2.1</u>	e. Repair, replacement or upgrading of malfunctioning on-lot sewage systems. (Reference-Title 25, § 71.21.a.4.iv)
<u>      </u>	<u>N/A</u>	f. Establishment of joint municipal sewage management programs. (Reference-Title 25, § 71.73.b.8)
<u>      </u>	<u>Sect. 7.2.1</u>	g. Reduction of organic or hydraulic loading to existing wastewater treatment facilities. (Reference-Title 25, § 71.71)
<u>      </u>	<u>Sect. 7.2.1</u>	h. Requirements for bonding, escrow accounts, management agencies or associations to assure proper operation and maintenance for non-municipal facilities. (Reference-Title 25, § 71.71)
		14. Non-structural comprehensive planning alternatives that can be undertaken to assist in meeting existing and future sewage disposal needs including: (Reference-Title 25, § 71.21.a.4)
<u>      </u>	<u>Sect. 2.5.3</u>	a. Modification of existing comprehensive plans involving:
		1. Land use designations. (Reference-Title 25, § 71.21.a.4)

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\_\_\_\_\_ Sect. 2.5.3

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\_\_\_\_\_ N/A

2. Densities. (Reference-Title 25, § 71.21.a.4)
3. Municipal ordinances and regulations. (Reference-Title 25, § 71.21.a.4)
4. Improved enforcement. (Reference-Title 25, § 71.21.a.4)
5. Protection of drinking water sources. (Reference-Title 25, § 71.21.a.4)
- b. Need for a comprehensive plan to assist in producing sound economic and consistent land development. (Reference-Title 25, § 71.21.a.4)
- c. Alternatives for creating or changing municipal subdivision regulations to assure long-term use of on-site sewage disposal. (Reference-Title 25, § 71.21.a.4)
- d. Evaluation of existing local agency programs and the need for technical or administrative training. (Reference-Title 25, § 71.21.a.4)

#### VI. The Evaluation of Alternatives

- A. Each technically feasible alternative identified in Section V of this check-list must be evaluated for consistency with respect to the following: (Reference-Title 25, § 71.21.a.5.i)

\_\_\_\_\_ N/A

\_\_\_\_\_ N/A

\_\_\_\_\_ N/A

\_\_\_\_\_ N/A

\_\_\_\_\_ N/A

\_\_\_\_\_ N/A

1. Applicable plans developed and approved under Sections 4 and 5 of the Clean Streams Law or Section 208 of the Clean Water Act (33 U.S.C.A. 1288). (Reference-Title 25, § 71.21.a.5.i.A) Appendix B, Section II.A.
2. Municipal wasteload management plans developed under PA Code, Title 25, Chapter 94. (Reference-Title 25, § 71.21.a.5.i.B) The municipality's recent Wasteload Management (Chapter 94) Reports should be examined to determine if the proposed alternative is consistent with the recommendations and findings of the report. (Appendix B, Section II.B.
3. Plans developed under Title II of the Clean Water Act (33 U.S.C.A. 1281-1299) or Titles II and VI of the Water Quality Act of 1987 (33 U.S.C.A. 1251-1376). (Reference-Title 25, § 71.21.a.5.i.C) Appendix B, Section II.E.
4. Comprehensive plans developed under the Pennsylvania Municipalities Planning Code. (Reference-Title 25, § 71.21.a.5.i.D) The municipality's comprehensive plan must be examined to assure that the proposed wastewater disposal alternative is consistent with land use and all other requirements stated in the comprehensive plan. Appendix B, Section II, D.
5. Antidegradation requirements as contained in PA Code, Title 25, Chapters 93, 95 and 102 (relating to water quality standards, wastewater treatment requirements and erosion control) and the Clean Water Act. (Reference-Title 25, § 71.21.a.5.i.E) Appendix B, Section II, F.
6. State water plans developed under the Water Resources Planning Act (42 U.S.C.A. 1962-1962 d-18). (Reference-Title 25, § 71.21.a.5.i.F) Appendix B, Section II, C.

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	N/A	7. Pennsylvania Prime Agricultural Land Policy contained in Title 4 of the Pennsylvania Code, Chapter 7, Subchapter W. Provide narrative on local municipal policy and an overlay map on prime agricultural soils. (Reference-Title 25, § 71.21.a.5.i.G) Appendix B Section II.G.
	N/A	8. County Stormwater Management Plans approved by the Department under the Storm Water Management Act (32 P.S. 680.1-680.17). (Reference-Title 25, § 71.21.a.5.i.H) Conflicts created by the implementation of the proposed wastewater alternative and the existing recommendations for the management of stormwater in the County Stormwater Management Plan must be evaluated and mitigated. If no plan exists, no conflict exists. Appendix B, Section II.H.
	N/A	9. Wetland Protection under PA Code, Title 25, Chapter 105. Map wetland areas using Federal National Wetlands Inventory Mapping and Soils Mapping. (Reference-Title 25, § 71.21.a.5.i.I) Identify and provide mitigative measures for any encroachments on wetlands from the construction or operation of any wastewater facilities proposed by the alternative. Appendix B, Section II.I.
	N/A	10. Protection of rare, endangered or threatened plant and animal species as identified by the Pennsylvania National Diversity Inventory (PNDI). (Reference-Title 25, § 71.21.a.5.i.J) Provide the Department with a copy of the completed Request For PNDI Search document. Also provide a copy of the response letter from the Department's Bureau of Forestry regarding the findings of the PNDI search. Appendix II. J.
	N/A	11. Historical and Archaeological Resource Protection under P.C.S. Title 37, Section 507 relating to cooperation by public officials with the Pennsylvania Historical and Museum Commission. (Reference-Title 25, § 71.21.a.5.i.K) Provide the Department with a completed copy of Form "A" and its attachments requesting the Bureau of Historic Preservation (BHP) to provide a listing of known historical sites and potential impacts on known archaeological and historical sites. Also provide a copy of the response letter from the BHP. Appendix B, Section II. K.
	Appendix P	B. Provide for the resolution of any inconsistencies in any of the points identified in Section VI.A. of this checklist by submitting written documentation that the appropriate agency has received, reviewed, and concurred with the method proposed to resolve identified inconsistencies. (Reference-Title 25, § 71.21.a.5.ii) Appendix B
	N/A	C. Evaluate each alternative identified in Section V of this checklist with respect to applicable water quality standards, effluent limitations or other technical, legislative or legal requirements. (Reference-Title 25, § 71.21.a.5.iii)
	N/A	D. Provide cost estimates using present worth analysis for construction, financing, ongoing administration, operation and maintenance and user fees for each alternative identified in Section V of this checklist. Estimates shall be limited to areas identified in the plan as needing improved sewage facilities within 5 years from the date of plan submission. (Reference-Title 25, § 71.21.a.5.iv)
	Sect. 7.3	E. Provide an analysis of the funding methods available to finance each of the proposed alternatives evaluated in Section V of this checklist. Also provide documentation to demonstrate which alternative and financing scheme combination is the most cost-effective; and a contingency financial plan to be used if the preferred method of financing cannot be implemented. The funding analysis shall be limited to areas identified in the plan as needing improved sewage facilities within five years from the date of the plan submission. (Reference-Title 25, § 71.21.a.5.v)

F. Analyze the ability of the municipality to implement each alternative proposed in Section V of this report including: (Reference-Title 25, § 71.21.a.5.vi)

_____	N/A
_____	N/A
_____	N/A
_____	N/A

1. The activities necessary to abate critical public health hazards pending completion of sewage facilities or sewage management programs. (Reference-Title 25, § 71.21.a.5.vi.A)
2. The phased development of the facilities or sewage management program. (Reference-Title 25, § 71.21.a.5.vi.B)
  - a. Provide time schedules for implementing each phase. (Reference-Title 25, § 71.21.a.5.vi.C)
3. The administrative organization and legal authority necessary for plan implementation. (Reference-Title 25, § 71.21.a.5.vi.D)

VII. Institutional Evaluation

A. Provide an analysis of all existing wastewater treatment authorities, their past actions and present performance including:

_____	<u>Sect. 7.3.2</u>
_____	<u>Sect. 7.3.1</u>
_____	<u>Sect. 7.3.1</u>
_____	<u>Sect. 7.3.1</u>
_____	<u>Sect. 7.3.1</u>
_____	<u>Sect. 7.3.1</u>
_____	<u>Sect. 7.3.1</u>
_____	<u>Sect. 7.3.1</u>

1. Financial & debt status. (Reference-Title 25, § 71.61.d.2.)
2. Available staff and administrative resources. (Reference-Title 25, § 71.61.d.2.)
3. Existing legal authority to:
  - a. Implement wastewater planning recommendations. (Reference-Title 25, § 71.61.d.2.)
  - b. Implement system-wide operation and maintenance activities. (Reference-Title 25, § 71.61.d.2.)
  - c. Set user fees and take purchasing actions. (Reference-Title 25, § 71.61.d.2.)
  - d. Take actions against adopted ordinance violators. (Reference-Title 25, § 71.61.d.2.)
  - e. Negotiate agreements with other parties. (Reference-Title 25, § 71.61.d.2.)
  - f. Raise capital for construction and operation and maintenance of facilities. (Reference-Title 25, § 71.61.d.2.)

B. Provide an analysis and description of the various institutional alternatives necessary to implement the proposed alternative including:

_____	N/A
_____	<u>Sect. 7.3</u>
_____	N/A

1. Need for new authorities. (Reference-Title 25, § 71.61.d.2.)
2. Functions of existing and proposed organizations (sewer authorities, etc.). (Reference-Title 25, § 71.61.d.2.)
3. Cost of administration, implementability, and the capability of the authority to react to future needs. (Reference-Title 25, § 71.61.d.2.)

## Item Required

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| <p>_____ <u>Sect. 2.4.4</u></p> <p>_____ <u>Sect. 2.4.4, 3.2.2</u></p> <p>_____ <u>N/A</u></p> <p>_____ <u>N/A</u></p> <p>_____ <u>N/A</u></p> <p>_____ <u>Sect. 7.1</u></p> | <p>C. Describe all necessary administrative and legal activities to be completed and adopted to ensure the implementation of the recommended alternative including:</p> <ol style="list-style-type: none"> <li>1. All legal authorities of incorporation. (Reference-Title 25, § 71.61.d.2.)</li> <li>2. All required ordinances, regulations, standards, and inter-municipal agreements. (Reference-Title 25, § 71.61.d.2.)</li> <li>3. Activities to provide rights-of-way, easements, and land transfers. (Reference-Title 25, § 71.61.d.2.)</li> <li>4. Other municipal sewage facilities plan adoptions. (Include the development of Items 1-4 on the project's schedule of implementation). (Reference-Title 25, § 71.61.d.2.)</li> <li>5. Any other legal documents. (Reference-Title 25, § 71.61.d.2.)</li> </ol> <p>D. Identify the chosen institutional alternative for implementing the chosen wastewater disposal alternative. Provide justification for choosing the specific alternative. (Reference-Title 25, § 71.61.d.2.)</p> |
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### VIII. Selected Wastewater Treatment & Institutional Alternatives

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|---|--|
| <p>_____ <u>Sect. 7.2</u></p> <p>_____ <u>Sect. 7.3</u></p> <p>_____ <u>N/A</u></p> <p>_____ <u>Sect. 7.3</u></p> <p>_____ <u>Sect. 7.3</u></p> <p>_____ <u>Sect. 5.2, 5.3, 7.2</u></p> <p>_____ <u>N/A</u></p> <p>_____ <u>Sect. 7.3</u></p> | <p>A. Select one technical wastewater disposal alternative which best meets the wastewater treatment needs of each area of the municipality studied. Justify the choices by providing documentation which shows that they are the best alternative(s) based on:</p> <ol style="list-style-type: none"> <li>1. Wastewater disposal needs. (Reference-Title 25, § 71.21.a.6.)</li> <li>2. Technical and administrative needs. (Reference-Title 25, § 71.21.a.6.)</li> <li>3. Cost-effectiveness. (Reference-Title 25, § 71.21.a.6.)</li> <li>4. Management and administration systems available. (Reference-Title 25, § 71.21.a.6.)</li> <li>5. Financing methods available. (Reference-Title 25, § 71.21.a.6.)</li> <li>6. 5 and 10 year planned growth areas. (Reference-Title 25, § 71.21.a.6.)</li> <li>7. Environmental soundness and compliance with natural resource planning and preservation programs. (Reference-Title 25, § 71.21.a.6.)</li> </ol> <p>B. Describe the capital financing plan chosen to implement the selected alternative(s).</p> |
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