



## WATER ALLOCATION APPLICATION AND INSTRUCTIONS

### GENERAL INFORMATION

This package is designed to assist the applicant in completing the application for water allocation. The application has been designed to fit as many types of circumstances as possible. All questions must either be answered or be designated as not applicable (N/A) to the project. **Failure to account for all questions or failure to attach requested additional information may result in the return of the application.** If additional space is required for an answer to a particular question, attach a separate sheet appropriately identified.

**The Quantity of Allocation Requested in Section C should be related to present and future (20-30 years in the future) need. Permits are issued for no greater than 25 year life. Applicants for subsidiary permits, in completing Section C should also consider any requirements or limitations contractually agreed upon with the supplying water supply agency (Seller).** The allocation requested should be related to Section M-Service Area Population (projected population served), Section N-Historical Water Use, and Section O-Present Water Use, which should be used in developing future average daily and peak day demands. **Documentation showing the determination of the Quantity of Allocation Requested must be provided in Section E. Provide an explanation of the methodology used in determining future need.** For example, if the Quantity of Allocation Requested from one or more surface sources totals 3.0 million gallons per day and future needs are projected to be 4.0 million gallons per day, an explanation should be provided indicating where the additional 1.0 million gallons per day will be obtained to meet future needs (additional source development, wells, purchase from other water suppliers, etc.).

Applicants for a subsidiary permit must complete the application as it applies to the applicant's existing and/or proposed system. Applicants for a subsidiary permit where the acquisition of water will be the sole source of supply need not complete Sections F, H, I, P and R unless other sources are maintained for use on an emergency basis. Applicants for a subsidiary permit utilizing other sources need not complete Section P or R unless other sources maintained by the applicant are surface water sources. Applicants switching from their own sources of supply to a purchased supply should answer Section N and O as it applied to historical use in their current system

**Applicants for allocation should insure consistency of data contained in the application. Sections F, G, J, L, N and O will be reviewed for consistency.** All average daily quantities recorded should be on a 365-day basis. For example: the total of the Average Daily Withdrawal column of Section F plus the total of Average Daily Water Transferred to Applicant of Section G will be compared to the Average Day column of Section N for the most recent calendar year and the total for Section O. The total Bulk Sales to Other Suppliers in Section O will be compared to the total Average Daily Water Transferred from Applicant in Section G.

**Applicants should also insure consistency of data contained in the application with data that has been provided by the applicant in its Annual Water Supply Report, which is required to be filed each year with the Department. Any inconsistencies should be explained.** Applicants that have failed to submit Annual Water Supply Reports for the two most recent calendar years may experience delays in processing the application.

Applicants are encouraged to contact the regional office regarding any questions concerning the completion of any part of the application. The primary causes for return of applications or delays in processing applications are failure to follow the instructions, failure to document requested allocation, failure to complete all sections in the application, failure to provide evidence of Municipal Notification as required by Act 14 of February 17, 1984, (P.L. 75, No. 14) 71 P.S. §510-5, failure to provide proper map and inconsistencies in data provided in the application or with data previously provided by the applicant in earlier applications or in Annual Water Supply Reports.

**STATE FEES.** In accordance with Section 11 of the Water Rights Act of June 24, 1939, P. L. 842 (Act No. 365), the application must be accompanied by a \$25.00 check or money order made payable to the Commonwealth of Pennsylvania.

Please use the Checklist for submittal provided on the last page of the application form to insure that you have properly completed the application. Failure to properly complete any part of the application or to provide sufficient information may result in delays in processing, or return of the application. Applicants must comply with Municipal Notification Requirements for Permit Application or Permit Revision in submitting the application. Failure to provide a copy of correspondence notifying each municipality in which

any activity will occur or in which any part of the applicant's system is located will result in the return of the application (no exceptions).

Send the completed water allocation application to the appropriate regional office.

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**SECTION A - APPLICANT IDENTIFIER**

For purposes of identifying and tracking complete permit packages, enter the following requested information.

**APPLICANT NAME.** Enter the name you designated as applicant of this project on the Permit Application - General Information Form submitted with this application.

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**SECTION B - MUNICIPAL AUTHORITY OPERATION**

The Department is requesting this information for public water supply agencies where a municipality and municipal authority are involved in the financing, operation, and maintenance of the water system. For instance, a municipal authority may be formed for financing improvements and expansions to the water system. In some cases, the municipal authority also operates and maintains the system; in other cases, the authority leases the system back to the municipality to operate and maintain. Also, sometimes when the bonds that have been issued by the authority have been repaid, the municipal authority is dissolved and ownership reverts back to the municipality. The Department needs to know this information so that a permit may be issued in the name of both the owner of the system and the operator of the system.

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**SECTION C - SOURCES FOR WHICH ALLOCATION IS BEING REQUESTED**

Each point of surface water withdrawal should be listed under Name of Source. The location of each source listed under this section must be provided on the map (See Section X), as well as latitude and longitude. If the application is for a subsidiary allocation, the name of the public water supply agency providing the water should appear under Name of Source. Applications for subsidiary allocation where no contract for the specific quantity of allocation requested exists, or contracts that provide for an unlimited amount of water supply or the contract amount is less than the requested allocation amount must be accompanied by a statement from the public water supply agency or person providing water that the proposed quantity is available for acquisition by the applicant. All water allocation requests including any requests for allocation through an emergency interconnection must specify the quantity of allocation

requested. A water allocation permit cannot be issued if the quantity is not specified. In such cases the application will be returned to the applicant. The subsidiary allocation permit application must be from the Public Water Supply Agency purchasing or receiving and not by the Public Water Supply Agency selling or providing.

Generally, the Department will grant allocations from large reservoirs on the basis of a 30-day average or yearly average. A maximum day allocation may also be imposed on the source. A run-of-stream intake or small reservoir will generally be granted a maximum day allocation. Permits for interconnection are generally issued based on a peak month 30-day average, unless the circumstances of the public water supplier providing the water dictates that the allocation be based on a maximum day allocation.

The sum of the individual quantities of allocation requested may be greater than the actual demonstrated future need. However, a total allocation from all surface sources, which approximates future need, should be requested. For example:

Future need	5.0 million gallons per day
Source A allocation requested	4.0 million gallons per day
Source B allocation requested	4.0 million gallons per day
All sources allocation requested	5.0 million gallons per day

This type of allocation request provides the water supplier with the ability to use the sources of supply to their best advantage and provides flexibility of operation of the water system. **The total quantity of allocation requested should be supported by documentation showing how the amount was determined by the applicant. The documentation must show calculations relating present water use and population to future water use and population. Other methods may be acceptable. However, generalized statements with no factual support are unacceptable.**

**The allocation permit cannot be issued for a greater than the requested amount in the application.**

**The safe yield should be listed for each source, and the methodology used to determine the safe yield must be explained in detail on a separate sheet.** Do not use safe yields from the State Water Plan as they may have been calculated based on different physical characteristics such as storage volume, drainage area, percent siltation, surface area, etc. **The Department will use the following criteria in the review of applications and the calculation of safe yield:**

Run-of-stream intakes and small reservoirs

Where water is withdrawn from a flowing stream, it is desirable for the minimum consecutive 7-day average low flow having a 50-year recurrence interval to ex-

ceed the estimated future maximum day water demand. Flow augmentation requirements, diversions, and instream flow needs should be appropriately accounted for, consistent with minimum flow criteria. Where a specific low flow passby is required, the natural flow must be allowed to pass the intake when it is below that specified discharge. Such specified discharges are normally at least the consecutive 7-day average low flow having a 10-year recurrence interval ( $Q_{7-10}$ ). Other sources of supply (groundwater, other surface sources, or interconnections with another public water supply system) should be adequate to provide for estimated future water demand when the stream cannot be used.

Whenever an intake is located on an ungaged stream, the applicant must select a reference gaging station. The selected gaging station must be on a watershed having similar geologic and climatic characteristics to those of the ungaged watershed. Other factors to consider are relative size of drainage areas and whether the reference gaging station is influenced by upstream reservoirs or other activities. The Department's Water Resources Bulletin No. 12, Low Flow Characteristics of Pennsylvania Streams, should normally be used to obtain the flow data. More up-to-date information may be available from the U.S. Geological Survey, and should be used when possible. The applicant can contact the District Chief, Water Resources Division at:

U.S. Geological Survey  
840 Market Street  
Lemoyne, PA 17043  
Phone: 717 730-6900

Actual flow data collected may be used to supplement the use of a reference gaging station. Any data provided should indicate the method used to measure the flow (current meter, weir, etc.), the dates of observation, the flow observed and whether it is an instantaneous flow (1 measurement per day) or an average daily flow (multiple measurements per day at specified times).

#### Large reservoirs

The gross yield of impounding reservoirs should be based on a 50-year drought having a duration which is critical for the amount of active storage provided in the reservoir. The critical duration is that period of time from initial drawdown until active storage is depleted, using a uniform withdrawal rate which will just empty the reservoir during the period.

Figure 1 shows a hypothetical mass curve for a four-year period. By constructing a mass curve for a particular reservoir site for the period of record, the storage required for a given uniform withdrawal rate can be determined. Conversely, for a given storage a safe uniform withdrawal rate can be determined. In the figure, at the end of the first year and the

beginning of the second year the storage required for a uniform withdrawal rate of 950 million gallons per year (2.6 million gallons per day) is 300 million gallons. The critical duration is about six months. The reservoir refills during late March of the second year.

Beginning in the second year, continuing through the third year and into the first half of the fourth year, there is a more severe low flow period.

An average uniform withdrawal of only 600 million gallons per year (1.6 million gallons per day) can be sustained by the same 300 million gallons of storage. The storage required to maintain the previous uniform withdrawal of 950 million gallons per year is about 800 million gallons. The critical duration at these uniform withdrawal is about 15 to 17 months. For the period of record shown, a uniform withdrawal of 1,300 million gallons per year could be sustained from total active storage of approximately 1,300 million gallons.

This method of analysis provides no meaningful estimate of probability for such critical periods. However, the probability can be determined by conducting a frequency-duration analysis of the stream gage record.

The Department has developed yield-storage-frequency relationships for 143 Pennsylvania streams. Gross yields for water supply reservoirs can be determined directly from these curves, which are published in Water Resources Bulletin No. 7, Long Duration Low Flow of Pennsylvania Streams. Procedures for deriving the net yield from the gross yield obtained from the curves are outlined on Pages 49 through 54 of Bulletin No. 7.

Conservation release rates for impoundments may be determined in accordance with Appendix A-3 of the State Water Plan's Planning Principles which is similar to Chapter 105 of the Department's Rules and Regulations. The rate is dependent on the low-flow characteristics of the stream, the amount of proposed withdrawal, and the magnitude of the reservoir relative to the size of the stream. The conservation release requirement is also determined as a result of consultation with the Pennsylvania Fish and Boat Commission. Unless more flow is needed for other purposes, the minimum flow rates generally will be based upon the  $Q_{7-10}$  flow of the stream. The  $Q_{7-10}$  flow is defined as a minimum, consecutive 7-day average flow having a 10-year occurrence interval.

#### Springs

The safe yield of a spring should be the lowest minimum flow observed or measured. The date or year that the safe yield was determined should be provided. Actual flow data collected over a period of

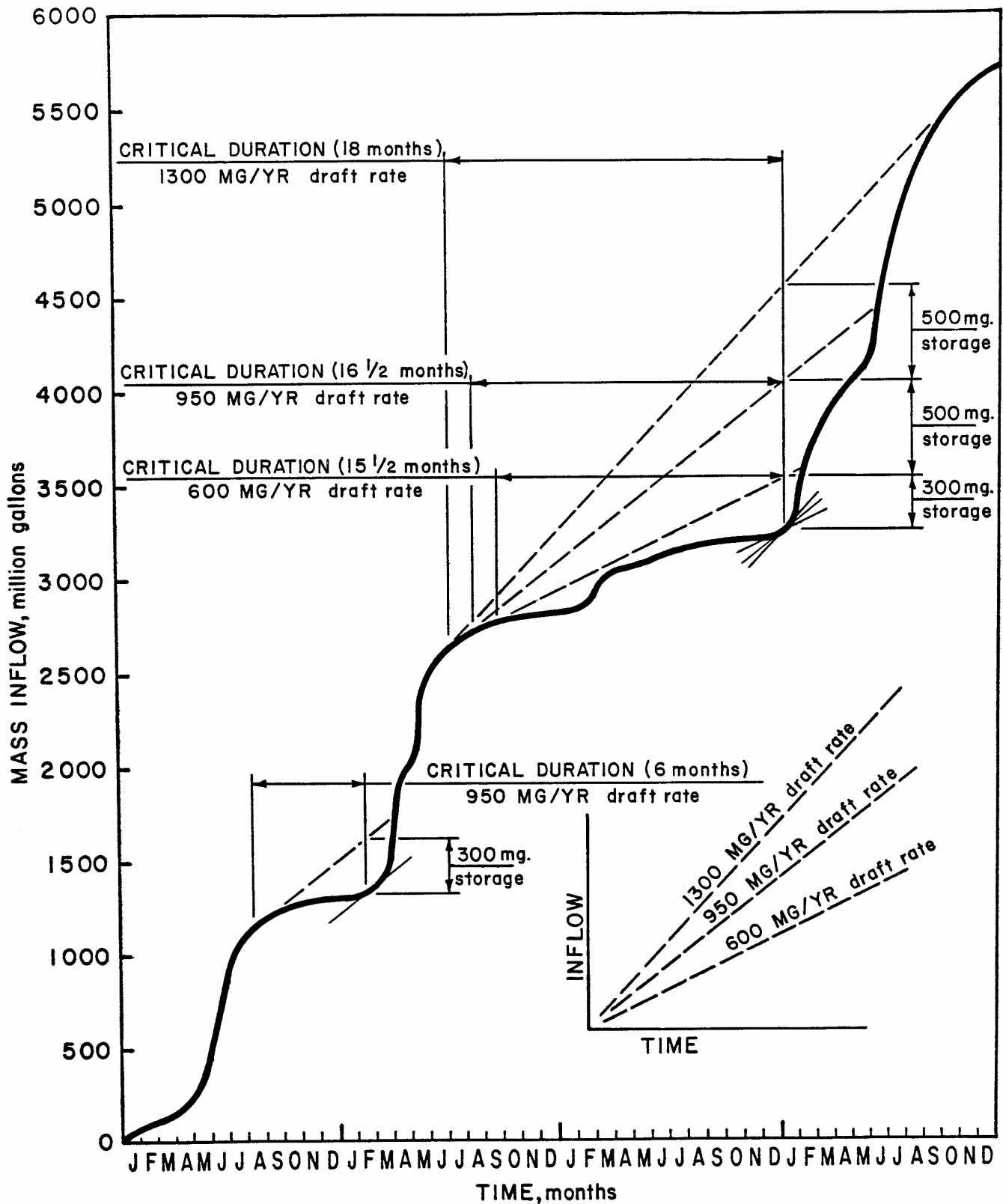


Figure 1. Hypothetical Mass Curve

time may be used to supplement prior estimates of safe yield. Any data provided should indicate the method used to measure the flow (meter, weir, bucket and stopwatch, etc.), the dates of observation, the flow observed and whether it is an instantaneous flow (1 measurement per day) or an average daily flow (multiple measurements per day at specified times).

The Department's Water Resources Bulletin No. 10, Springs of Pennsylvania may be used for 196 springs that were inventoried in that report. Appendix A is Figure 1 from that report, showing the location of the springs.

**The Department will review an application for water allocation based on both present and projected future needs of the applicant and the net yield of the sources. Applicants should report the true safe yield of each source. The safe yield of each source does not have to be equal to or greater than the Quantity of Allocation Requested.** An allocation may be granted greater than the safe yield to allow for flexibility in operation where more than one source is available. An allocation greater than the safe yield for a single source water supplier will generally require an engineering study to find an additional source of supply. **Inflated safe yields are suspect, lead to additional questions, require supporting documentation, and lead to delays in processing the application. The quantity of surface water allocation will be determined based upon true safe yield and the conjunctive uses of all developed and proposed sources. Sources include groundwater sources or interconnections with other water suppliers, as well as all surface water sources.**

**A court decision has stated that the Department is required to consider not only the particular stream involved but also the availability of other sources of supply in order that the conservation, development and equitable distribution of water is made in the public interest. Applicants for new or increased withdrawals should indicate in Section E if alternative sources have been studied in lieu of the allocation request. If alternative sources have been investigated, provide a copy of the study, analysis, or other documents relating to the sources considered and reasons for rejecting the sources.**

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#### SECTION D - PRIOR PERMITS DETAIL

Provide prior permit detail including, but not limited to, Public Water Supply Permit, Dam Safety Permit, Water Allocation Permit and Soils and Waterways Permit.

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#### SECTION E - ALLOCATION REQUEST JUSTIFICATION

Provide documentation through calculations showing how the quantity of allocation request for each source was determined and, if appropriate, how the overall allocation request was determined. If the allocation request is just for the service area expansion then the applicant should provide detailed information providing number of connections, population, water use projection, etc.

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#### SECTION F - EXISTING SOURCES, INCLUDING WELLS

**All existing direct withdrawal sources of supply, including wells,** shall be listed under this item. The location of each facility listed under this section must be provided on the map (See Section X). All sources of supply shall be listed even if it was not used by the applicant. The wells are not being permitted for use since they are groundwater and not required to have a water allocation permit. However, the information is needed to determine how the applicant uses the sources conjunctively. Interconnections with other public water suppliers shall be listed under Section G. The Average Daily Withdrawal for **the most recent calendar year** shall be listed for each source named, if used during the year. The Average Daily Withdrawal shall be provided on a 365-day basis. For example, if the source is used for 100 days and the average withdrawal during those 100 days was 36,500 gallons, then the reported quantity should be 10,000 gpd ( $36,500 \times 100 \div 365$ ) not 36,500. The applicant shall provide the number of days used during the most recent calendar year for each source. Under Type of Use, it shall be indicated whether the source is used on a regular basis, auxiliary basis to meet peak demands, or emergency basis. **Provide the methodology used in determining the safe yield of each source. If a pump test was conducted for a well, provide the date and the results of the test as an attachment.** Also, provide the well depth, diameter, and whether equipped to measure distance to water. If so equipped, describe equipment.

A two-year daily water withdrawal history must be provided for all existing surface water sources of supply, including springs. The Department recommends an applicant for water allocation consider metering withdrawals from all its sources of supply (surface water, ground water, and purchases) immediately, so that a record of the withdrawal or purchase quantities may be established prior to submitting any permit application or during the processing of an application. This record may be used to help establish the amount of allocation that should be requested in the application and the safe yield of the source. The Department

has found many water suppliers without source meters to be underestimating the amount of withdrawal from their sources because of an underestimation of the amount of leakage and loss occurring in their system. The problem is further compounded when customer connections are unmetered and customer usage is underestimated. This problem ultimately results in the water supplier being requested later to submit another application once the meter is installed and it has been determined that the actual withdrawal is in excess of the amount previously approved. **Please note that any water allocation permit the Department may issue will require the installation of meters to determine the amount of water withdrawn from the sources.**

Applicants with sources in the Delaware River Basin should refer to Appendix B for requirements for source metering as required by Resolutions 86-12 or 86-13. Resolution 86-12, adopted June 1986, requires public water suppliers with total daily withdrawals which exceed 100,000 gallons per day average, during any 30-day period to meter all withdrawals. Resolution 86-13 represents an amendment to Section 9 of the Ground Water Protected Area (GWPA) Regulations of Southeastern Pennsylvania. Resolution 86-13, also adopted in June 1986, requires public water suppliers with a cumulative daily average withdrawal exceeding 10,000 gallons from a well or group of wells operated as a system within the GWPA, to meter all withdrawals. Both Resolutions require daily meter readings to be recorded daily and reported as monthly totals, annually, to the Department, and were effective January 1, 1987.

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**SECTION G - INTERCONNECTIONS WITH OTHER PUBLIC WATER SUPPLIERS, BOTH EXISTING AND PROPOSED**

a. Under Average Quantity of Water Transferred, the applicant shall list the quantity purchased or sold during the most recent calendar year for each separate interconnection with other public water suppliers. **If more than one interconnection exists between the applicant and another public water supplier, each separate interconnection should be listed.** The applicant shall provide the number of days each interconnection was used during the most recent calendar year as the basis for calculating Average Quantity of Transfer. **For each interconnection, a copy of the current agreement governing the transfer of water between the applicant and the other public water supplier shall be provided.** If no written agreement exists, provide a letter from the public water supplier providing the supply indicating the terms and conditions or restrictions regarding the transfer of water and stating that they have no objection to the requested allocation amount. The Maximum Transfer Limit per Agreement

and the Maximum Hydraulic Transfer Capability shall also be listed for each separate interconnection. **Failure to list all interconnections with other water suppliers, regardless of whether the interconnection is used regularly, intermittently, or only on an emergency basis, will cause delays in processing the application.** The location of each facility listed under this section must be provided on the map (See Section X).

b. The applicant is required to provide a two-year billing history showing the date of meter reading and gallons of water billed for each interconnection as an attachment.

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**SECTION H - INSTREAM INTAKE(S) EXCLUDING DAMS**

Each existing and proposed instream intake shall be listed under this item. The location of each facility listed under this section must be provided on the map (See Section X).

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**SECTION I - RAW WATER INTAKE DAMS AND STORAGE DAMS**

For each existing and/or proposed dam listed, the applicant shall provide a reservoir elevation-area-capacity curve as an attachment to the application. Figure 2 shows an example of this curve. If the dam has facilities to provide a release of water to the stream when water is not flowing over the spillway, plans showing the facilities shall be provided or a description provided on a separate sheet. If no facilities exist, an explanation indicating how drawdown of the reservoir is accomplished, and plan and elevation drawings showing the intake, dam, and piping, must be provided as an attachment. The location of each facility listed under this section must be provided on the map (See Section X).

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**SECTION J - WATER TREATMENT PLANTS AND CHLORINATION FACILITIES**

The Average Daily Quantity Treated for the most recent calendar year shall be listed for each treatment plant and chlorination facility. The Average Daily Hours Operated shall be provided.

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**SECTION K - TREATED STORAGE RESERVOIR(S), STANDPIPE(S) OR TANK(S)**

List each existing and proposed treated storage reservoir, standpipe, tank or other storage facility under this item. The location of each facility listed under this section must be provided on the map (See Section X).

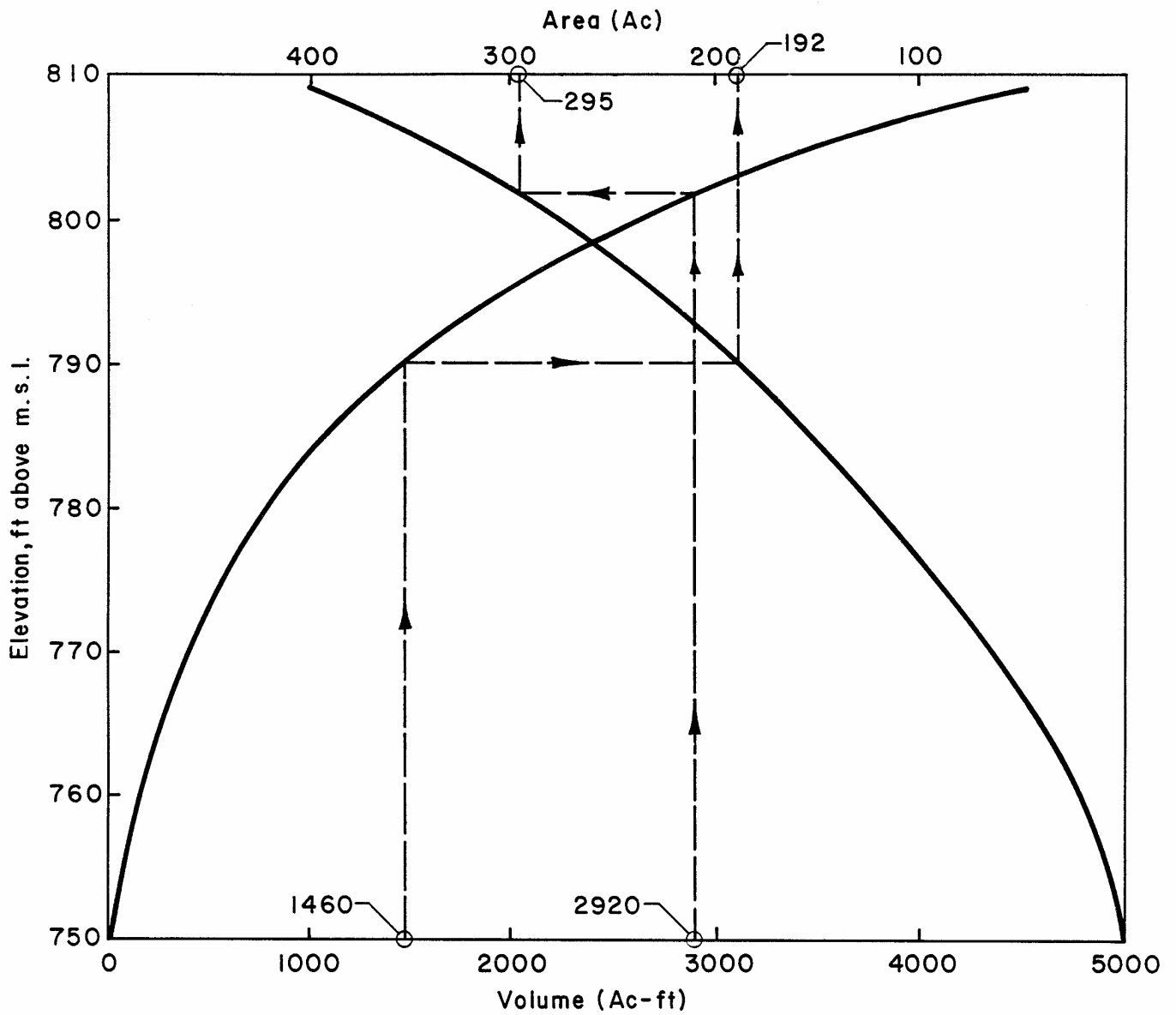


Figure 2. HYPOTHETICAL AREA-CAPACITY CURVES OF THE RESERVOIR

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## SECTION L - DISPOSAL OF WASTEWATER BY CUSTOMERS OF PUBLIC WATER SUPPLY AGENCY

This item **must** be completed by every applicant. This item deals with the disposal of wastewater by customers, resulting from water supplied at the connection by the public water supply agency. The Department will review each application to determine the point of return for water that is withdrawn at each water source. Each application will be reviewed for interbasin transfers (transfer from one watershed to another), intrabasin transfers (transfer from one point in a watershed to another point, usually downstream) and consumptive uses (water withdrawn but not returned, e.g., product consumption, irrigation, etc.). The category of Other disposal is for those cases where wastewater is neither disposed on-site, such as through septic tank systems, nor disposed at a wastewater treatment plant. An example would be where water is discharged directly to a stream or to another point of discharge. The applicant shall list each sewage treatment plant for which the sewage collection service area overlaps the water supply service area. If the permitted capacity of the plant is known it shall be listed to the right within the column identified as Name of Sewage Treatment Plant. The Amount Treated from Service Area shall be reported for the most recent calendar year. A percent of total use shall be calculated for each sewage treatment plant, on-site disposal or other discharge. **The total of Amount Treated from Service Area plus On-site Disposal plus Other will be compared to the amount of water provided by the applicant's water system. Differences shall be explained.**

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## SECTION M - SERVICE AREA POPULATION

The Department requires the completion of this item before consideration of an application. Population shall be listed only for those municipalities directly served by the water supplier. Population for municipalities served by interconnected water suppliers shall not be listed. Population information may be obtained from county and/or regional planning commissions. The Department, through the State Water Plan and Comprehensive Water Quality Management Programs, maintains five-decade municipal-level population projections. These numbers may also be available through regional or county planning commissions and are available by request at the address listed below or by phone at 717-772-4048.

Department of Environmental Protection  
Bureau of Watershed Management  
Division of Water Use Planning  
P.O. Box 8555  
Harrisburg, PA 17105-8555

The population projections contained in an application will be reviewed for consistency with the Department's projections. **If population projections are from a different source or are computed and the population projections for any municipality differ by more than 10 percent from the Department's municipal projections, an explanation of the difference must be provided by the applicant. If the population projections are from a source other than the Department, provide a copy of the document used as a source of the projections. If the population projections have been computed, a clear and concise explanation must be provided regarding the basis of assumptions used in making the projections. Use additional sheets of paper, if necessary, for the explanation.**

**The projected population served for the municipality should be based on what the applicant would serve and should not report the entire municipality population unless the applicant projects to serve the entire municipality.**

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## SECTION N - QUANTITY OF WATER SUPPLIED IN EACH OF THE PAST 10 CALENDAR YEARS

The Average Day and Peak Day use must be supplied for each of the past 10 years. If this information is not available, an explanation shall be provided. **If the values are estimated, the basis for the estimate shall be provided on a separate sheet.** Mark the appropriate box, metered or estimated, if the numbers provided are based on metered readings or estimates. The quantities shall represent the total amount of water from all sources supplied to the distribution system and not just the amount of water billed to customers. **The quantities must include leakage and loss.**

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## SECTION O - PRESENT WATER USE

Water use for the most recent calendar year shall be provided for each type of use. Water use will be reviewed for consistency with water use information provided on the applicant's Annual Water Supply Report and in application Sections F, G, J, L, and N. **Any inconsistencies must be explained in detail. An explanation must be provided regarding how apartments and multiple dwelling units are accounted for in the Table and under which Type Use (domestic, commercial, etc.) this use has been included.** Bulk Sales to Other Suppliers refers to interconnections with other public water supply systems. The total Bulk Sales to Other Suppliers given here shall be checked for consistency with the total for Average Quantity of Water Transferred from Applicant in Section G. Leakage and Loss is equal to the difference between the total amount of water obtained from all sources of

supply (withdrawals plus purchases) and the total amount billed and accounted for all other uses.

Reasonable estimates should be provided for new water systems. Estimates of the initial number of customer connections and water use should be provided along with the assumptions and calculations used to derive the listed numbers.

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## SECTION S - EXPLANATION OF SYSTEM OPERATION

An explanation of the system's present and proposed future operation shall be provided along with a description of major facilities. This is particularly important for systems that are switching from their own sources of supply to a purchased supply. Systems with more than one source and where the sources are not used simultaneously on a continual daily basis shall explain how the sources are used. An effective system operation plan can be used on a year-to-year basis whether a normal year or a drought year. Any new sources of supply currently under development must be included in this item. All such surface and ground water sources shall be listed along with projected yield and probable date of completion.

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## SECTIONS U, V, W - WATER CONSERVATION PROGRAMS, LEAK DETECTION PROGRAMS, AND DROUGHT CONTINGENCY PLANS

The Department will review each application for water allocation to determine if the applicant has developed water conservation and leak detection programs and a drought contingency plan. If the applicant has not developed these programs and plans, the Department will require the development and implementation of these programs or plans as conditions in the permit. Appendix C provides guidance in the design of a water conservation program. **If the applicant's customer connections are unmetered, the applicant will be required to submit a plan and timetable for metering the connections.** Any permit issued will contain a condition requiring metering of the unmetered connections within a specified period of time. Applicants with sources located either in the Susquehanna or Delaware River Basins shall refer to Appendix D for requirements of the Delaware River Basin Commission and the Susquehanna River Basin Commission regarding water conservation, leak detection, and drought contingency plans. Applicants with sources in the Delaware River Basin shall refer to Appendix B for requirements of Resolutions 81-9, 87-6 Revised, 87-7 Revised, 88-2 (Revision No. 2) and 92-2, . Resolution 87-6 Revised, adopted in September 1988, requires public water suppliers serving in excess of an average of 100,000 gallons per day during any 30-day period to develop and implement a leakage and loss control plan for their system. Resolution 87-7 Revised, amended in May,

1997, requires public water suppliers serving in excess of an average of 100,000 gallons per day during any 30-day period to install water meters at all service connections by September 28, 1998. Resolution 92-2, adopted January 1992 requires public water suppliers seeking approval of a new or expanded water withdrawal to include as part of the application, a water conservation plan. Resolutions 88-2 Revision No. 2 and 81-9 referenced in Resolution 92-2 are included for reference. The Division of Water Use Planning, Bureau of Watershed Management, is the implementing agency in the Commonwealth for these resolutions.

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## SECTION X - OVERALL SYSTEM MAP

The applicant must submit an overall system map on 7.5 minute series U.S.G.S. Quadrangle maps (see next paragraph) showing the locations of present and proposed surface and groundwater sources of supply, including and labeling all pumping stations, purification and/or filter plants, reservoirs, wells, springs, booster stations, standpipes, transmission mains, and interconnections with other water suppliers, **including an outline of the present and proposed future service area. The service area boundary line (outline) must be contiguous and close on itself.** A map or maps of sufficient coverage should be used to completely outline the service area. It is not adequate to show only distribution and transmission lines, service area boundaries must be shown. The service area boundary shall accurately depict the present and proposed future service area. A boundary showing the same present and proposed future service area may cause a problem in justifying an increased allocation over and above present usage. The map must also show service areas of wastewater treatment plants, their points of discharge, and a delineation of areas served by on-lot septic systems, if applicable. **Applications submitted without a 7.5 minute series USGS quadrangle map and particularly without an outline of present and proposed future service areas will be returned.**

See the attached "USGS Map Dealers in Pennsylvania" that carry 7.5 minute series U.S.G.S. Quadrangle Maps. An updated list can be obtained from the internet at <http://www.usgs.gov>. Another preferred and acceptable map format is the U.S.G.S. County Series Topographic Map for large systems covering most of a county or more than one county. The map must be of sufficient detail to permit the plotting of the present and future service area in a Geographic Information System for the delineation of present and future service area and the calculation of served population.

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## SECTION Y - CERTIFICATION AND SIGNATURE

Complete and sign as indicated. The application must be signed by the applicant's officer and notarized.

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## ATTACHMENTS

In order for your permit application to be complete, **you must submit TWO COPIES of the following documents:**

1. The application form.
2. An overall system map with all details specified in Section X.
3. The required supplemental information - **complete and submit the attached application checklist.**
4. Evidence of Act 14 Municipal and County Notification. Acceptable forms of evidence include:
  - a. Certified mail receipt and copy of letter sent to each municipality and county, OR
  - b. Written acknowledgment from each municipality and county.

**NOTE:** Failure to provide all requested information may result in the return of your application or delay in processing of your application.

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## MUNICIPAL AND COUNTY NOTIFICATION OF PERMIT APPLICATION

Act 14, P.L. 834, enacted February 17, 1984, requires that each applicant for a permit under the Water Rights Act of 1939 must give written notice to the municipality(ies) and the county(ies) in which the permitted activity is located.

The written notice shall be received by the municipality(ies) and the county(ies) at least 30 days before the Department of Environmental Protection may issue or deny the permit. Notice must be sent to the municipality(ies) and the county(ies) in which any

of the following activities will occur: 1) water is or will be withdrawn from any surface source; 2) water is or will be served to the public; 3) construction will occur relative to any of the following: a) any surface withdrawal; b) transmission of any surface withdrawal to the delivery system; c) treatment of any surface withdrawal; d) delivery of any surface withdrawal to the public.

You may notify the municipality(ies) and the county(ies) by providing a letter or a copy of the application to each municipality and county by CERTIFIED MAIL, RETURN RECEIPT REQUESTED, or by personally delivering a copy to and obtaining a written acknowledgment of receipt from each municipality and county. Letters should be addressed to the office of the Secretary or the Clerk of the municipality and county OR to the Supervisors, Manager or Commissioners as appropriate.

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## GENERAL NOTES

**Note A.** Applicant is encouraged to simplify his application submission. Submission of excessively voluminous documents and plans frequently contribute to delays; i.e. Department generally has no need for bid specifications, street and curb details, reinforcing steel and welding and connector details, plumbing and electrical layouts, etc. **ROLLS OF PLANS AND BLUEPRINTS WILL NOT BE ACCEPTED AND WILL BE DISPOSED OF; NO FURTHER ACTION WILL BE TAKEN ON YOUR APPLICATION.**

**Note B.** This application, together with all maps, plans, profiles and specifications, and all papers, information and data filed in connection therewith, will remain on file with the Department of Environmental Protection.

**Note C.** Initially two copies of the Application and attachments must be sorted into separate and complete packages. The Regional Office will request additional copies based on the number of agencies they forward the application to for comments and for Department use.

# Appendix A

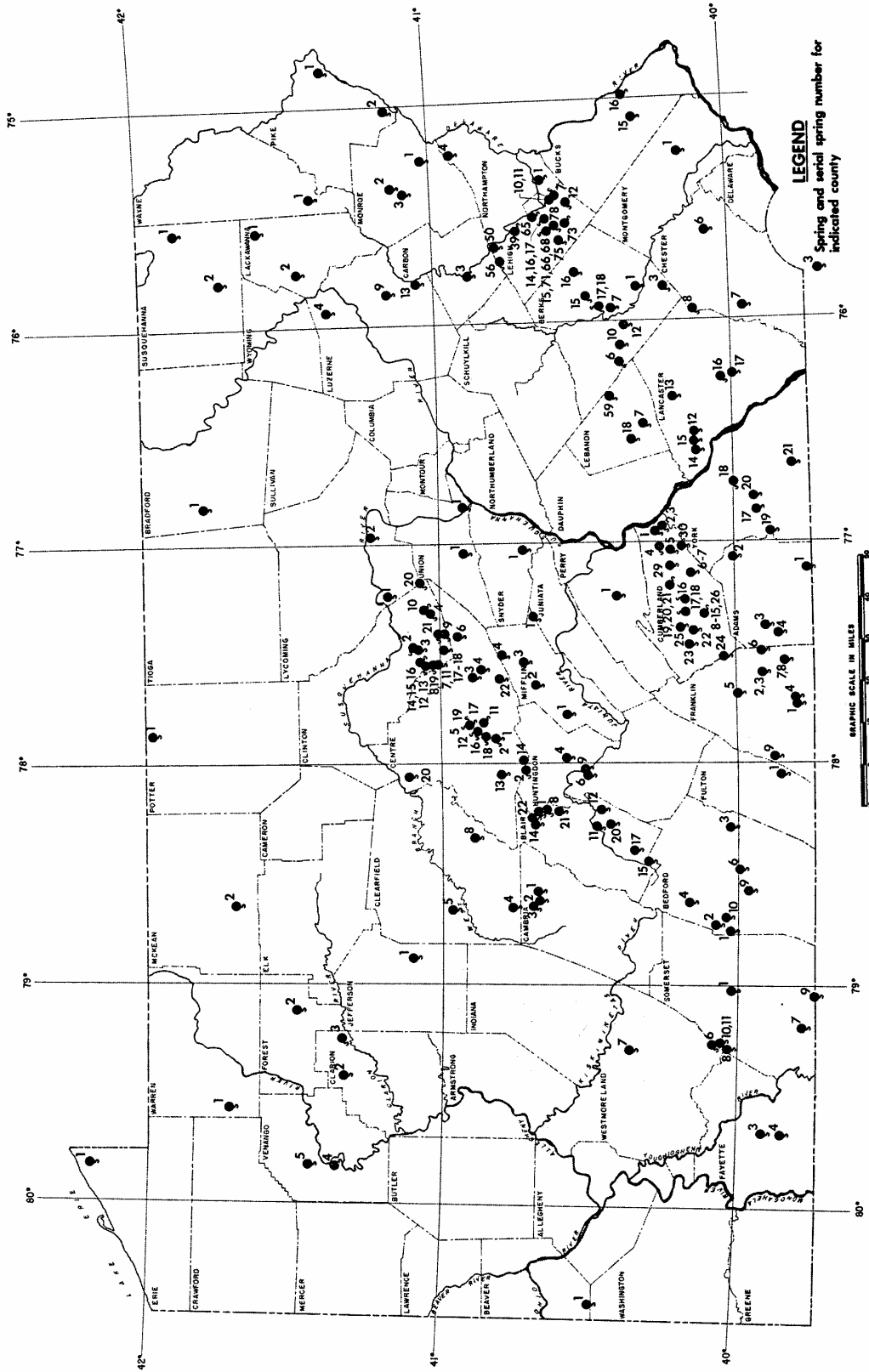


Figure 1.- Map of Pennsylvania showing locations of selected springs.

**Appendix B**  
**Delaware River Basin Commission Resolutions**  
**P.O. Box 7360, West Trenton, NJ 08628-0360**

**Phone: (609) 883-9500**

**FAX: (609) 883-9522**

**No. 81-9**

A RESOLUTION to amend the Rules of Practice and Procedure in relation to water conservation.

WHEREAS, in 1976 the Commission adopted a long-range program to reduce water use throughout the basin to be effectuated in part through regulations affecting water use; and

WHEREAS, the Commission's Comprehensive Plan includes policy requiring maximum feasible efficiency in the use of water and the eventual application of water-conserving practices and technologies; and

WHEREAS, the Commission held a public hearing on a proposed water conservation regulation on July 30, 1980, and has reviewed the testimony of public agencies, industries and citizen groups interested in the sound use of basin water resources; now therefore,

BE IT RESOLVED by the Delaware River Basin Commission:

The Administrative Manual - Part II, Rules of Practice and Procedure is hereby amended by the addition thereto of a new section 2-3.5.3 entitled, Water Supply Projects - Conservation Requirements to read as follows:

Maximum feasible efficiency in the use of water is required on the part of water users throughout the Basin. Effective September 1, 1981 applications under Section 3.8 of the Compact for new water withdrawals subject to review by the Commission shall include and describe water- conserving practices and technology designed to minimize the use of water by municipal, industrial and agricultural users, as provided in

(a) Applications for approval of new withdrawals from surface or ground water sources submitted by a municipality, public authority or private water works corporation whose total average withdrawals exceed one million gallons per day shall include or be in reference to a program prepared by the applicant consisting of the following elements:

(1) Periodic monitoring of water distribution and use, and establishment of a systematic leak detection and control program;

(2) Use of the best practicable water-conserving devices and procedures by all classes of users in new construction or installations, and provision of information to all classes of existing users concerning the availability of water-conserving devices and procedures;

(3) A contingency plan including use priorities and emergency conservation measures to be instituted in the event of a drought or other water shortage condition. Contingency plans of public authorities or private water works corporations shall be prepared in cooperation with, and made available to, all municipalities in the area affected by the contingency plan, and shall be coordinated with any applicable statewide water shortage contingency plans.

(b) Programs prepared pursuant to subsection (a) of this section shall be subject to any applicable limitations of public utility regulations of the signatory party in which the project is located.

(c) Applications for approval of new industrial or commercial water withdrawals from surface or ground water sources in excess of an average of one million gallons per day shall contain (1) a report of the water-conserving procedures and technology considered by the applicant, and the extent to which they will be applied in the development of the project; and (2) a contingency plan including emergency conservation measures to be instituted in the event of a drought or other water shortage. The report and contingency plan shall estimate the impact of the water conservation measures upon consumptive and non-consumptive water use by the applicant.

(d) Applications for approval of new agricultural irrigation water withdrawals from surface or ground water sources in excess of one million gallons per day shall include a statement of the operating procedure or equipment to be used by the applicant to achieve the most efficient method of application of water and to avoid waste.

(e) Reports, programs and contingency plans required under this section shall be submitted by the applicant as part of the permit application to the state agency having jurisdiction over the project, or directly to the Commission in those cases where the project is not subject to the jurisdiction of a state agency. State agencies having jurisdiction over a project that is subject to the provisions of this section shall

determine the adequacy and completeness of the applicant's compliance with these requirements and shall advise the Commission of their findings and conclusions.

/s/Steven J. Picco  
Steven J. Picco, Chairman pro tem

/s/W. Brinton Whittall  
W. Brinton Whittall, Secretary

Adopted: February 18, 1981

**No. 86-12**

A RESOLUTION to amend the Comprehensive Plan and Water Code of the Delaware River Basin in relation to source metering of large surface and ground water withdrawals.

WHEREAS, the Special Ground Water Study Basinwide Report and Executive Summary was accepted by the Delaware River Basin Commission on December 15, 1982; and

WHEREAS, the study outlines a recommended program for integrated management of ground-water quantity and quality in the Basin; and

WHEREAS, the study concluded that data regarding ground-water withdrawals and use in the Basin is often inaccurate or incomplete, and that this information is critical for effective management of the Basin's water resources; and

WHEREAS, the Commission's Ground Water Advisory Committee unanimously approved on July 19, 1984 a proposal to require metering of large ground-water withdrawals for the purpose of obtaining an improved water use database for the Basin; and

WHEREAS, following a November 26, 1985 public hearing on a Commission proposal to require metering of large ground water withdrawals, recommendations were made to expand the proposal to include surface as well as ground water withdrawals; and

WHEREAS, the Commission held public hearings on March 6 and March 26, 1986 regarding this revised proposed amendment and has received and considered testimony from water users and other interested parties; now therefore

BE IT RESOLVED by the Delaware River Basin Commission:

1. The Comprehensive Plan and Article 2 of the Water Code of the Delaware River Basin are hereby amended by the addition of a new subsection 2.50.2, to read as follows:

**2.50.2 Source metering, recording and reporting.**

(1) Each person, firm, corporation, or other entity whose cumulative daily average withdrawal(s) from the surface and/or ground waters of the Basin from any surface water intake, spring, or well, or any combination of surface water intakes, springs, or wells operated as a system, exceeds 100,000 gallons per day during any 30-day period shall meter or measure and record their withdrawals and report such withdrawals to the designated agency of the state where the withdrawals are located. Withdrawals shall be measured by means of an automatic continuous recording device, flow meter, or other method, and shall be measured to within five percent

of actual flow. Exception to the five percent performance standard, but no greater than ten percent, may be granted for surface water withdrawals by the designated state agency if maintenance of the five percent performance standard is not technically feasible or economically practicable. Meters or other methods of measurement shall be subject to approval and inspection by the designated state agency as to type, method, installation, maintenance, calibration, reading, and accuracy. Withdrawals shall at a minimum be recorded on a daily basis for public water supply use and on a biweekly basis for all other water uses, and reported as monthly totals annually. More frequent recording or reporting may be required by the designated state agency or the Commission.

(2) The following water uses and operations are exempt from the metering or measurement requirements of subsection (1): agricultural irrigation; snowmaking; dewatering incidental to mining and quarrying; and dewatering incidental to construction. Persons engaged in such withdrawals in excess of 100,000 gallons per day during any 30-day period shall record the pumping rates and the dates and elapsed hours of operation of any well or pump used to withdraw water, and report such information as required in subsection (1).

(3) The following are the designated state agencies for the purposes of this regulation: Delaware Department of Natural Resources and Environmental Control; New Jersey Department of Environmental Protection; New York State Department of Environmental Conservation; and Pennsylvania Department of Environmental Protection.

(4) Pursuant to Section 11.5 of the Compact, the designated state agencies shall administer and enforce programs for metering, recording, and reporting of water withdrawals, in accordance with this regulation and any applicable state regulations.

(5) This regulation shall be effective January 1, 1987.

/s/ Dirk C. Hofman  
Dirk C. Hofman, Chairman pro tem

/s/ Susan M. Weisman  
Susan M. Weisman, Secretary

ADOPTED: June 25, 1986

**No. 86-13**

A RESOLUTION to amend the Commission's Ground Water Protected Area Regulations for Southeastern Pennsylvania in relation to ground water withdrawal metering, recording and reporting.

WHEREAS, the Special Ground Water Study Basinwide Report and Executive Summary was accepted by the Delaware River Basin Commission on December 15, 1982; and

WHEREAS, the study outlines a recommended program for integrated management of ground-water quantity and quality in the Basin; and

WHEREAS, the study concluded that data regarding ground-water withdrawals and use in the Basin is often inaccurate or incomplete, and that this information is critical for effective management of the Basin's water resources; and

WHEREAS, the Commission's Ground Water Advisory Committee unanimously approved on July 19, 1984 a proposal to require metering of large ground- water withdrawals for the purpose of obtaining an improved water use database for the Basin; and

WHEREAS, following a November 26, 1985 public hearing on a Commission proposal to require metering of large ground-water withdrawals, recommendations were made to propose a similar amendment to the Ground Water Protected Area Regulations for Southeastern Pennsylvania requiring metering, recording and reporting of ground water withdrawals in excess of 10,000 gpd; and

WHEREAS, the Commission held a public hearing on March 26, 1986 regarding this proposed amendment and has received and considered testimony from water users and other interested parties; now therefore

BE IT RESOLVED by the Delaware River Basin Commission:

1. The Ground Water Protected Area Regulations of Southeastern Pennsylvania are hereby amended by the addition of a new section 9, to read as follows:

2. Ground water withdrawal metering recording and reporting.

(a) Each person, firm, corporation, or other entity whose cumulative daily average withdrawal of ground water from a well or group of wells operated as a system exceeds 10,000 gallons per day during any 30-day period shall meter or measure and record their withdrawals and report such withdrawals to the Pennsylvania Department of Environmental Protection. Withdrawals shall be measured by means of an automatic continuous recording device, flow meter, or other method, and shall be measured to within five percent of actual flow. Meters or other

methods of measurement shall be subject to approval and inspection by the Pennsylvania Department of Environmental Protection as to type, method, installation, maintenance; calibration, reading, and accuracy. Withdrawals shall at a minimum be recorded on a daily basis for public water supply use and on a biweekly basis for all other water uses, and reported as monthly totals annually. More frequent recording or reporting may be required by the Pennsylvania Department of Environmental Protection or the Commission.

(b) The following water uses and operations are exempt from the metering or measurement requirements of subsection (a): agricultural irrigation; snowmaking; dewatering incidental to mining and quarrying; dewatering incidental to construction; and space heating or cooling uses that are exempt from permit requirements in Section 6. Except for space heating and cooling uses described herein, persons engaged in such exempt withdrawals in excess of 10,000 gallons per day during any 30-day period shall record the pumping rates and the dates and elapsed hours of operation of any well or pump used to withdraw ground water, and report such information as required in subsection (a). Space heating and cooling uses that are exempt from permit requirements in Section 6 shall also be exempt from the requirement for recording and reporting.

(c) Pursuant to Section 11.5 of the Compact, the Pennsylvania Department of Environmental Protection shall administer and enforce a program for metering, recording, and reporting ground-water withdrawals in accordance with this regulation.

(d) This regulation shall be effective January 1, 1987.

3. Renumber existing sections 9 through 18 of the Ground Water Protected Area Regulations as required to reflect the addition of the foregoing new section 9.

/s/ Dirk C. Hofman  
Dirk C. Hofman, Chairman pro tem

/s/ Susan M. Weisman  
Susan M. Weisman, Secretary

ADOPTED: June 25, 1986

I hereby certify that this is a true copy of Resolution No. 86-13 adopted by the Delaware River Basin Commission on June 25, 1986.

/s/ Susan M. Weisman  
Susan M. Weisman, Secretary

**NO. 87-6 (Revised)**

A RESOLUTION to amend the Comprehensive Plan and Water Code of the Delaware River Basin in relation to leak detection and repair.

WHEREAS, leak detection and repair of public water supply systems is an effective water conservation technique; it can significantly improve water supply system efficiency and can lead to substantial decreases in unaccounted-for water and the costs associated with lost water; and

WHEREAS, there is a significant cost to owners of water supply systems serving the public (purveyors) for treating and delivering unaccounted-for water in the Basin; and

WHEREAS, the Commission recommends that the signatory states should provide incentives to promote leak detection, and to facilitate water system renewal and rehabilitation; and

WHEREAS, the Water Conservation Advisory Committee recommended on September 26, 1986 that the Commission adopt regulations requiring purveyors in the Basin to undertake leak detection and repair programs; and

WHEREAS, the Commission held a public hearing on February 25, 1987 regarding this proposed regulation and has received and considered testimony from purveyors and other interested parties; and

WHEREAS, the Water Conservation Advisory Committee met on April 10, 1987 and revised the proposed amendment in response to the comments and testimony received; and the committee recommends that the revised proposal be adopted by the Commission; now therefore

BE IT RESOLVED by the Delaware River Basin Commission:

1. The Comprehensive Plan and Article 2 of the Water Code are hereby amended by the addition of a new subsection 2.1.6, to read as follows:

2.1.6 Leak detection and repair

(1) Owners of water supply systems serving the public (purveyors) in the Delaware River Basin that distribute water supplies in excess of an average of 100,000 gallons per day (gpd) during any 30-day period shall develop and undertake a systematic program to monitor and control leakage within their water supply system. Such a program shall at a minimum include: periodic surveys to monitor leakage, enumerate unaccounted-for water, and determine the current status of system infrastructure; recommendations to monitor and control leakage; and a schedule for the implementation of such recommendations. Each purveyor's program shall be subject to review and approval by the designated

agency in the state where the system is located. "Unaccounted-for water" is defined as the difference between the "metered ratio" and 100 percent. The metered ratio is the amount of water delivered through service meters divided by the amount of water entering the distribution system. The designated state agencies are: Delaware Department of Natural Resources and Environmental Control; New Jersey Department of Environmental Protection; New York Department of Health, and Pennsylvania Department of Environmental Protection.

(2) Each purveyor that distributes in excess of one million gallons per day (mgd) shall submit its initial program to monitor and control leakage to the appropriate designated agency within two years and each purveyor that distributes between 100,000 gpd and 1 mgd shall submit its initial program to monitor and control leakage to the appropriate designated agency within five years of the effective date of this regulation or at such earlier date as shall be fixed by the designated state agency. Each purveyor shall prepare and submit a revised and updated program to monitor and control leakage every three years thereafter or at such earlier date as shall be required by the designated state agency. The designated state agency may require more frequent program submission from purveyors with unaccounted-for water that is in excess of 15 percent.

(3) Any project approvals hereafter granted pursuant to Section 3.8 of the DRBC Compact or any renewal of a project approval shall be subject to the provisions of this regulation.

(4) To avoid duplication of effort and to insure proper enforcement of this regulation, the Executive Director shall enter into administrative agreements with each of the designated agencies authorizing such agencies to administer and enforce the provisions of this regulation to the extent practicable and to adopt such rules and regulations of procedure as may be necessary to insure the proper administration and enforcement of this regulation.

(5) This regulation shall be effective immediately.

/s/ Russell C. Mt. Pleasant  
Russell C. Mt. Pleasant, Acting  
Chairman pro tem

/s/ Susan M. Weisman  
Susan M. Weisman, Secretary

ADOPTED: September 28, 1988

**NO. 87-7 (Revised)**

A RESOLUTION to amend the Comprehensive Plan and Water Code of the Delaware River Basin in relation to service metering.

WHEREAS, the Delaware River Basin Commission adopted on June 25, 1986, a resolution that requires source metering and recording of large surface and ground water withdrawals; and

WHEREAS, both source and service metering are needed to determine unaccounted-for water in a public water supply system, which is necessary for leak detection and repair; and

WHEREAS, current Commission policy on service metering applies only to new public water supply systems and extensions of existing public water supply systems; and

WHEREAS, the Water Conservation Advisory Committee, recognizing that complete and accurate metering of water withdrawn and delivered by a public water system is integral to prudent water supply management, recommended on September 26, 1986 that the Commission expand its policy on service metering to ultimately require universal service metering; and

WHEREAS, the Commission held a public hearing on February 25, 1987 regarding this proposed amendment and has received and considered testimony from water purveyors and other interested parties; and

WHEREAS, the Water Conservation Advisory Committee met on April 10, 1987 and revised the proposed amendment in response to the comments and testimony received; and the committee recommends that the revised proposal be adopted by the Commission; now therefore

BE IT RESOLVED by the Delaware River Basin Commission:

1. The Comprehensive Plan and Article 2 of the Water Code of the Delaware River Basin are hereby amended by the revision of subsection 2.50.1, to read as follows:

2.50.1 Service metering

(1) Owners of water supply systems serving the public (purveyors) in the Basin that distribute water supplies in excess of an average of 100,000 gallons per day during any 30-day period shall install, or require to be installed, water meters incident to the provision or maintenance of service at the retail level.

(2)(a) Meters shall be installed so as to record water use at all service connections. (b) Water furnished for fire suppression purposes shall be exempt from metering provided that fire suppression (sprinkler) systems are equipped with

detector check or flow detection devices. (c) Water removed from fire hydrants shall be exempt from metering unless otherwise required by a purveyor, or state or local government.

(3) Water use shall be recorded or measured by means of a metering device that conforms to the performance specifications of the American Water Works Association. Purveyors shall adopt and implement a program for periodic maintenance, calibration, and replacement of meters to ensure meter accuracy.

(4) Water charges collected by purveyors shall be based in part on metered usage.

(5) It is recommended that, at least once a year, each purveyor: (a) provide each metered residential customer with information on savings available through water conservation; and (b) explain different methods of residential water conservation and their cost-effectiveness, and the availability of water conservation devices.

(6) Installation of meters at existing unmetered connections shall be completed within ten years of the effective date of this regulation.

(7) To avoid duplication of effort and to insure proper enforcement of this regulation, the Executive Director shall enter into administrative agreements with the Delaware Department of Natural Resources and Environmental Control, New Jersey Department of Environmental Protection, New York Department of Health, Pennsylvania Department of Environmental Protection, and other state agencies where appropriate, authorizing such agencies to administer and enforce the provisions of this regulation to the extent practicable and to adopt such rules and regulations of procedure as may be necessary to insure the proper administration and enforcement of this regulation.

(8) This regulation shall be effective immediately.

/s/ Russell C. Mt. Pleasant  
Russell C. Mt. Pleasant, Acting  
Chairman pro tem

/s/ Susan M. Weisman  
Susan M. Weisman, Secretary

ADOPTED: September 28, 1988

AMENDED: May 5, 1997

**NO. 88-2 (Revision No.2)**

A RESOLUTION to amend the Comprehensive Plan and Water Code of the Delaware River Basin in relation to water conservation performance standards for plumbing fixtures and fittings.

WHEREAS, The Commission adopted Resolution No. 88-2 on January 13, 1988; and

WHEREAS, Section (4) of Resolution No. 88-2 required the Executive Director to conduct an initial review of the performance standards by January 13, 1989 to consider the revision of the standard for water closets to require low-consumption water closets effective January 1, 1990; and

WHEREAS, a final report documenting the results of the initial review of the standards was prepared by Commission staff in accordance with the directives of the Water Conservation Advisory Committee; and

WHEREAS, the Committee recommended on November 17, 1988 that the Commission amend Resolution No. 88-2 to require low-consumption water closets in new construction and renovation beginning January 1, 1991, and to modify the timetables for state and local compliance with performance standards to January 1, 1991; and

WHEREAS, the Commission revised Resolution No. 88-2 on May 24, 1989 to require low-consumption water closets effective January 1, 1991; and

WHEREAS, the Commission suspended temporarily the enforcement of Resolution No. 88-2 (Revised) until July 1, 1991 in recognition of the fact that the necessary changes in plumbing codes, regulations, and statutes had not been fully implemented despite substantial progress toward compliance by the signatory states; and

WHEREAS, the Commission desired to coordinate the effective date of the Commission's rule with the amendatory changes at the state level; and

WHEREAS, the Commission held a public hearing on June 19, 1991 regarding the modification of Resolution No. 88-2 (Revised) and has received and considered testimony from the public, plumbing industry, and other interested parties; now therefore

BE IT RESOLVED by the Delaware River Basin Commission:

1. The Comprehensive Plan and Article 2 of the Water Code of the Delaware River Basin are hereby amended by the substitution of a new subsection 2.1.S to read as follows:

2.1.5 Water conservation performance standards for plumbing fixtures and fitting

(1)(a) All water conservation performance standards for plumbing fixtures and fittings adopted by

any signatory state or political subdivision within the Delaware River Basin shall comply with the following minimum standards:

(i) for sink and lavatory faucets, maximum flow shall not exceed three gallons of water per minute when tested in accordance with American National Standards Institute (ANSI) A112.18.1M; and

(ii) for shower heads, maximum flow shall not exceed three gallons of water per minute when tested in accordance with ANSI A112.18.1M; and

(iii) for water closets and associated flushing mechanism, maximum volume shall not exceed an average of one and six-tenths gallons per flushing cycle when tested in accordance with the hydraulic performance requirements of ANSI A112.19.2M and ANSI A112.19.6M; and

(iv) for urinals and associated flushing mechanism, maximum flow shall not exceed one and one-half gallons of water per flush when tested in accordance with the hydraulic performance requirements of ANSI A112.19.2M and ANSI A112.19.6M.

(b) Any water conservation performance standards adopted prior to the effective date of this regular that are not in compliance with the provisions of (a) shall be amended or revised to comply with the provisions of (a) by July 1, 1991.

(c) The Commonwealth of Pennsylvania is encouraged to adopt water conservation performance standards for plumbing fixtures and fittings that comply with the provisions of (a) by July 1, 1991. The Commission shall notify all municipalities within the Pennsylvania portion of the Basin of the retirement to adopt and enforce local regulations that comply with the provisions of (a) if Pennsylvania has not adopted such standards. Upon notification by the Commission, municipalities shall have one year to adopt such local regulations.

(2)(a) The performance standards of subsection (1) shall apply to plumbing fixtures and fittings installed in new construction and, where provided in state or local regulations, in existing structures undergoing renovations involving replacement of such fixtures and fittings.

(b) The performance standards of subsection (1) shall not apply to fixtures and fittings such as emergency showers, aspirator faucets, and blowout fixtures that, in order to perform a specialized function, cannot meet the standards specified in subsection (1).

(3) To be acceptable for use in the Basin, plumbing fixtures and fittings shall be certified and labeled by the manufacturer as meeting the water conservation performance standards specified in

subsection (1). Certification shall be based on independent test results. Plumbing fixtures and fittings shall be labeled in accordance with ANSI A112.18.1M and ANSI A112.19.2M.

(4) The Executive Director shall periodically review the performance standards and testing requirements set forth in subsection (1) to determine their adequacy in light of advances in technology for water conservation fixtures and fittings. The results of such reviews, including any recommendations for more stringent water conservation performance standards, shall be presented to the Commission.

(5) Municipalities of the Commonwealth of Pennsylvania seeking permit approval or renewal under Section 3.8 of the Compact for water supply or wastewater discharge projects shall document that regulations consistent with subsection (l) have been adopted within their area of jurisdiction. Such documentation shall be a condition for permit approval or renewal.

2. This resolution shall be effective July 1, 1991.

/s/ Michael F. Catania  
Michael F. Catania, Chairman pro  
tem

/s/ Susan M. Weisman  
Susan M. Weisman, Secretary

ADOPTED: June 19, 1991

**NO. 92-2**

A RESOLUTION to amend the Comprehensive Plan and Water Code of the Delaware River Basin in relation to retail water pricing to encourage conservation.

WHEREAS, water conservation pricing offers significant potential for reducing both average and peak water use; and

WHEREAS, the Delaware River Basin Commission (Commission), through its Water Conservation Advisory Committee (Committee) has sought the advice of numerous experts in the field of water rates and pricing structures, including representatives of the Delaware Public Service Commission, New Jersey Board of public Utilities, New York Public Service Commission, and Pennsylvania Public Utilities Commission; and

WHEREAS, the Commission and the New York City Water Board jointly sponsored a seminar on November 1, 1990 in Princeton, New Jersey to gain an improved understanding of conservation pricing; the seminar, entitled "Promoting Water Conservation Through Innovative Rate Design," was attended by 175 people; and

WHEREAS, the Committee recommended on April 3, 1991 that the Commission consider its proposed policy concerning retail water pricing to encourage conservation; and

WHEREAS, the Commission held a public hearing on August 14, 1991 regarding this proposed policy and received and considered testimony from water users and other interested parties; and

WHEREAS, the Water Conservation Advisory Committee met on September 12, 1991 and October 10, 1991 to review the comments and testimony received; and

WHEREAS, the Committee recommend that the proposed policy be coordinated with the preparation of water conservation plans by individual purveyors; and

WHEREAS, the Commission held a second public hearing on December 11, 1991 regarding this revised proposal and has considered testimony and comments from interested parties; now therefore

BE IT RESOLVED by the Delaware River Basin Commission:

1. The Comprehensive Plan and Article 2 of the Water Code of the Delaware River Basin are hereby amended by the addition of a new Subsection 2.1.2.C and a new Section 2.1.7 to read as follows:

C. Owners of water supply systems serving the public (purveyors) seeking approval under Section 3.8 of the Compact for a new or an expanded water

withdrawal shall include as part of the application, a water conservation plan. The plan shall describe the various programs adopted by the purveyor to achieve maximum feasible efficiency in the use of water.

(1) The water conservation plan shall, at a minimum, describe the implementation of the following programs as required by the Commission:

- a. Source metering (Resolution No. 86-12);
- b. Service metering (Resolution No. 87-7 Revised);
- c. Leak Detection and Repair (Resolution No. 87-6 Revised); and
- d. Water Conservation Performance Standards for Plumbing Fixtures and Fittings (Resolution No. 88-2 Revision No. 2).

(2) All applications submitted after June 30, 1992 for a new or expanded water withdrawal that results in a total withdrawal equaling or exceeding an average of one million gallons of water per day shall include the following in the water conservation plan:

- a. An evaluation of the feasibility of implementing a water conservation pricing structure and billing program as required in Section 2.1.7; and
- b. Provision of information on the availability of water conserving devices and procedures (Resolution No. 81-9).

(3) The water conservation plan shall be subject to review and approval by the designated agency in the system is located. The designated state agencies are: Delaware Department of Natural Resources and Environmental Control; New Jersey Department of Environmental Protection and Energy; New York Department of Environmental Conservation; and Pennsylvania Department of Environmental Protection.

(4) The Executive Director shall enter into administrative agreements with each of the designated agencies to administer and enforce the provisions of this regulation. In the absence of an administrative agreement, the Commission shall administer and enforce the regulation.

(5) This regulation shall be effective immediately.

**2.1.7 Retail Water Pricing to Encourage Conservation**

A. Policy.--It shall be the policy of the Delaware River Basin Commission to promote and support retail water pricing that encourages conservation.

B. Definitions

1. A water conserving pricing structure is an important demand management tool that provides incentives to consumers to reduce average or peak water use, or both. Conservation pricing reflects the fact that water is a precious resource that should be used in an economically efficient manner. Such pricing includes:

a. Rates designed to recover the full cost of providing service, including a reasonable rate of return on investment; and

b. Timely billing based on metered usage.

Such pricing is also characterized by one or more of the following components:

c. Rates in which the unit price of water per class of customer (residential, industrial, etc.) is constant within each class regardless of the quantity of water used (uniform rates) or increases as the quantity of water used increases (increasing block rates);

d. Seasonal rates or excess-use surcharges to reduce peak water demands during summer months; or

e. Rates based on the long-run marginal cost or the cost of adding the next unit of water supply to the system.

2. A nonconserving pricing structure is one that provides no incentives or disincentives to consumers to reduce water use. Such pricing may be characterized by one or more of the following components:

a. Rates in which the unit price of water within any one class of customer decreases as the quantity of water used increases (decreasing block rates);

b. Rates that involve charging customers a set fee per unit of time regardless of the quantity of water used (flat rates);

c. Pricing that does not reflect the full cost of providing services; or

d. Pricing in which the typical bill is determined mainly by a minimum charge and metered usage has little impact on the total bill.

C. Criteria

1. All purveyors are encouraged to evaluate alternative pricing structures with the objective of adopting a water conserving pricing structure.

2. A purveyor seeking approval under Section 3.8 of the Compact for a new or expanded water withdrawal and whose proposed total withdrawal equals or exceeds an average of one million gallons of water per day shall include in its

water conservation plan submitted as part of the application, an evaluation of the feasibility of implementing a water conserving pricing structure and billing program. A purveyor may limit the evaluation to less than its entire system upon application and a determination that a review of its entire system is not necessary. The evaluation shall, at a minimum, consider:

a. The potential change in the quantity of water demanded for customer classes and their end uses of water during both peak and non peak periods stemming from alternative water conservation pricing structures;

b. The potential revenue effects of the alternative pricing structures;

c. Any legal or institutional changes necessary or desirable to implement a water conservation pricing structure; and

d. How conservation pricing could be coordinated with other conservation programs and measures to reduce both average and peak water use.

3. The requirement set forth in (2) shall be waived if the purveyor either documents it has adopted a water conserving pricing structure or is in the process of implementing such a pricing structure in accordance with a Commission schedule or a schedule established by the appropriate state public utility commission.

4. The Executive Director, on or before June 30, 1993 and annually thereafter, shall review the effectiveness of the retail water pricing activities hereunder to determine their adequacy in promoting and supporting water pricing that encourages water conservation. The results of such review and recommendations, if any, shall be submitted to the Commission for its consideration.

5. This resolution shall be effective immediately.

/s/ Alan J. Farling  
Alan J. Farling, Chairman pro tem

/s/ Susan M. Weisman  
Susan M. Weisman, Secretary

ADOPTED: January 22, 1992

## Appendix C

### GUIDELINES FOR DESIGNING A WATER CONSERVATION PROGRAM

Many water supply managers and community leaders across the Commonwealth feel that water conservation or wise use of water should be practiced at all times. Because the competition for water among various users is becoming more and more complex, the efficient use of available supplies is essential. The benefits of implementing water conservation concepts throughout a water supply service area are many and should be carefully examined. Saving water will save money for consumers on water, sewer and water heating bills. Demand for water has a pronounced impact on the environment by lowering streamflows and lake levels, depleting groundwater aquifers, and in certain cases, requiring the impoundment of free flowing streams or the diversion of water from one drainage basin to another. Reducing per capita water use will decrease the amount of wastewater generated, and thereby, maintain the operating efficiency of treatment plants over a longer period of time. Reducing water consumption will reduce operating costs for utilities, and will delay costly capital improvements to water systems which typically involve the expansion of water treatment or pumping plants and storage facilities. When compared to the cost of expanding existing facilities or developing new water sources, the most cost-effective alternative is conservation.

These guidelines have been prepared by the Department's Water Use Planning Division to provide you with assistance in designing an effective water conservation program. These guidelines suggest the many alternative methods of conserving water. Not all of the recommended conservation methods have application to every water purveyor. Instead, the guidelines should be considered a checklist that may be used to select the most applicable, economically-feasible conservation methods to implement within your service area or community. At your request, Division of Water Use Planning staff will meet with you to review the guidelines and assist you in designing a conservation program which considers the opportunities and constraints which characterize your area of service.

These guidelines have been organized in two categories: 1) Supply Management Methods, which include Leakage/Loss Control and Water Meter Management; and 2) Demand Management Methods, which include Pricing, Water Conservation Education and Local Water-Use Regulations.

#### I. SUPPLY MANAGEMENT METHODS

##### A. Leakage/Loss Control

1. Prepare a map of the water distribution system showing:
  - a. Main transmission lines
  - b. Street valves
  - c. In-line metering locations
  - d. In-line pressure-reducing valves
  - e. Hydrant locations
  - f. Locations of breaks/leaks repaired in last 10-year period
  - g. Areas of potential system expansion or interconnection.
2. List the name and age of all facilities to be monitored in conjunction with a leakage/loss program.
3. Indicate the number of full or part-time employees engaged in an ongoing leak detection program; if no ongoing program exists, indicate when the last leak survey was conducted, by whom, and on what portion of the distribution system.
4. Describe ongoing valve and hydrant maintenance activities. All valves and hydrants should be exercised and sounded for leakage at least annually.
5. Indicate the location of frost and subsidence-prone areas and areas of pipe crossover or interference. Indicate transmission line age and composition in terms of materials used, diameter, lined or unlined, etc.
6. Institute a program which includes an accurate recording of system pressure for each separately-operated pressure zone, leaks detected and leaks repaired. A sample log sheet for recording leak detection/repair activities is shown below for your consideration.



- promotional information. An excellent time to provide this information to customers is just prior to the summer season when demand normally peaks.
2. Promote water conservation benefits and techniques through local newspaper articles, radio and television public service announcements, information centers at local fairs and shopping centers, and public displays or exhibits.
  3. Seek the cooperation of local school officials in initiating a program of water education activities.
  4. Sponsor water conservation poster, slogan, essay, or exhibit contests for children within the service area.
  5. Initiate a water conservation program in high-use facilities such as schools and colleges, hospitals and institutions, country clubs and health clubs, involving a retrofit of existing plumbing fixtures with water-saving models and the dissemination of water conservation literature.
  6. Promote a campaign of household leak detection. Provide leak detection tips on billing cards. Distribute dye tablets to customers to encourage toilet leak checks. Direct meter readers to inform customers with unusually high recorded use to check for household water leaks.
  7. Speak to local civic organizations (Boy Scouts, Jaycees, volunteer fire companies, etc.) on water conservation and suggest the sale of water-saving devices as a fund-raising activity.
  8. Purchase promotional materials (i.e. buttons, bumper stickers, tee-shirts) encouraging water conservation for distribution throughout the service area or community.
  9. Conduct public tours of water treatment plants, reservoirs, pumping stations, and other related facilities.
  10. Conduct a workshop for plumbers, plumbing fixture suppliers, builders, and major water users to discuss the benefits of water conservation and the importance of promoting the installation of water-saving plumbing fixtures.
  11. Meet with major water users to formulate demand management plans for their facilities.

### C. Local Water Use Regulations

1. Promote the adoption of a water conserving ordinance which requires the installation of water-saving plumbing fixtures and fittings in all new buildings constructed or in existing homes where building permits are issued for kitchen or bathroom remodeling work.
2. Institute requirements for the installation of water-saving plumbing fixtures and fittings as a condition prior to hook-up for new customers.
3. Encourage the wise use and management of water during peak use summer periods by restricting lawn/garden watering to non-daylight hours.
4. Institute fines for the unauthorized use of water such as illegal hookups and hydrant discharges.
5. Promote land use regulations which protect critical groundwater recharge areas and potential well locations.

### **FOR FURTHER INFORMATION**

A great deal of staff expertise exists within the Department to assist you in this endeavor. In addition, promotional water conservation materials are available from the Department. To further discuss the design and development of an effective water conservation program contact the Department of Environmental Protection, Bureau of Watershed Management, Division of Water Use Planning, P.O. Box 8555, Harrisburg, PA 17105-8555

**Appendix D**  
**Water Conservation Policies of Susquehanna River Basin Commission**  
**1721 North Front Street**  
**Harrisburg, PA 17102-2391**  
**Phone: (717) 238-0423**  
**FAX: (717) 238-2436**

On January 11, 1979, the Susquehanna River Basin Commission adopted "Water Conservation Policy and Standards." The policy and standards state in part:

Policy

Now therefore be it resolved that:

1. The Commission hereby adopts a water conservation policy (a) to require new industrial, commercial, municipal and agricultural water users in the Susquehanna River Basin to maximize their water use efficiency by utilizing available, feasible water conservation technologies including the reuse of water, metering, pressure control and other use reduction techniques and (b) to require within reasonable time and as may be feasible existing users adopt similar water conservation practices.
2. To implement this policy, the Commission shall develop a water conservation program consisting of appropriate standards, economic incentives, and measures to promote the public understanding of conservation benefits and costs.
3. The Commission shall coordinate implementation of its conservation program with the appropriate signatory agencies to take full advantage of their ongoing programs and capabilities.

Standards

**PART 804 - SPECIAL REGULATIONS AND STANDARDS**

**Subpart B - Water Conservation Requirements**

**§804.20 Requirement.**

Any project sponsor whose project is subject to commission approval under this part or part 803 of this chapter proposing to withdraw water either directly or indirectly (through another user) from surface or ground-water sources or both shall comply with the following requirements:

- (a) Public water suppliers. As circumstances warrant, the public water supplier shall:
  - (1) Reduce distribution system losses to a level not exceeding 20 percent of the gross withdrawal.
  - (2) Install meters for all users.

(3) Establish a program of water conservation that will:

- (i) Require installation of water conservation devices, as applicable, by all classes of users;
- (ii) Prepare and distribute literature to customers describing available water conservation techniques;
- (iii) Implement a water pricing structure which encourages conservation; and
- (iv) Encourage water reuse.

Authority: Secs. 3.4(2) and (9), 3.8, 3.10 and 15.2, Pub. L. 91-575, 84 Stat. 1509 et seq.

## EXHIBIT E

Revision date: 9/97

## USGS MAP DEALERS IN PENNSYLVANIA

The dealers listed below carry a selected inventory of 7.5 Minute Series USGS Quadrangle Topographic Maps. Some dealers also carry 1:50,000 county maps. A current list of USGS Map Dealers in Pennsylvania may be available on the internet at <http://www.usgs.gov>.

Gwin Engineers, Inc. 11126 Eighth Ave. Altoona, PA 16602 (814) 944-5035	Fertich Company 1355 Stag Drive Auburn, PA 17922 (717) 739-2476	Perry's Sport Shop Po Box 5 Garretson St Austin, PA 16720 (814) 647-8856
Eastern Nat'l Park & Monument Upper Delaware S & Rr Rr2 Box 2428 Beach Lake, PA 18405 (717) 729-7134	Bedford Tax Assessment Office Grace Whitfield Office Chief Assessor Courthouse Annex Bedford, PA 15522 (814) 623-4842	Centre County Assessment Off. 420 Holmes Street Willow Bank Office Bldg Bellefonte, PA 16823 (814) 355-6821
Centre County Conservation Dis 414 Homes Ave. Suite 4 Bellefonte, PA 16823 (814) 355-6817	Precision Art Photo Mercer St 2nd Ave Po Box 368 Berwick, PA 18603 (717) 752-4319	Blakeslee Sport Shop Route 115 Box 68 Blakeslee, PA 18610 (717) 646-2670
Abl Graphics 5547 New Berwick Highway Po Box 166 Bloomsburg, PA 17815 (717) 784-9022	Columbia Cty Conservation Dist 1127 1/2 Old Berwick Rd Bloomsburg, PA 17815 (717) 784-1310	Klondike Gift Exxon Rt 59 Kinzua Heights Box 85 Bradford, PA 16701 (814) 362-1788
Brookville Gun Shop 58 Barnett St Brookville, PA 15825 (814) 849-3040	Mifflin Cnty Conserve Dist 20 Windmill Hill # 4 Burnham, PA 17009 (717) 248-4695	Butler County Conservation District 122 Mccune Drive Butler, PA 16001-6501 (412) 284-5270
Zizzis Inc 1448 Holly Pike Carlisle, PA 17013 (717) 243-3752	Musser Engineering Inc Rd 1 Box 463 Central City, PA 15926 (814) 754-8477	Franklin County Treasurers Off Franklin County Courthouse 157 Lincoln Way E Chambersburg, PA 17201 (717) 261-3119
Fox & Fox Inc Rd 2, Box 52 Reidsburg Rd Clarion, PA 16214 (814) 745-2861	High Gear 34 S Fifth Ave Clarion, PA 16214 (814) 226-4763	Lackawanna Consere Dist Bedford Station 395 Bedford Street Clarks Summit, PA 18411 (717) 586-1081
Bobs Army Navy Store 229 E Market St Clearfield, PA 16830 (814) 765-4652	Maps Plus 214 N 2nd Street Clearfield, PA 16830 (800) 531-6277	Eastern Nat'l Park & Monument 446 N Lane Conshohocken, PA 19428 (610) 832-0555
R.E.I. 200 W Ridge Pike, Ste 115 Conshohocken, PA 19403 (610) 940-0809	City News Co 219 N Main St Po Box 510 Coudersport, PA 16915 (814) 274-8583	Cross Fork Tackle Shop Box 261 Main St Cross Fork, PA 17729 (717) 923-1960

Bill's Gun Shop 310 Mill St Danville, PA 17821 (717) 275-5171	Russell City Store Route 66 De Young, PA 16728 (814) 968-4415	Pecks Pond Store Restaurant Nc 67 Box 485 Dingmans Ferry, PA 18328 (717) 775-7237
Alfred B Patton Inc 64 Swamp Road Po Box 857 Doylestown, PA 18901 (215) 345-0700	The Sullivan Review Main & Water Streets Po Box 305 Dushore, PA 18614 (717) 928-8403	Manharts Sport Shop 5025 Milford Rd East Shroudsburg, PA 18301 (717) 223-0644
Cambria County Conserve Dist 401 Candlelight Dr, Pmc Bldg Po Box 187 Ebensburg, PA 15931 (814) 472-2120	Cambria County Planning Comm Gerald P Parisi 401 Candlelight Drive Po Box 89 Ebensburg, PA 15931 (814) 472-5962	French Creek Canoe 12570 Edinboro Road Edinboro, PA 16412 (814) 796-3366
Cabin Kitchen 24 W 4th St Po Box 294 Emporium, PA 15834 (814) 486-0528	Clay Bookstore 2450 W Main St Ephrata, PA 175228426 (717) 733-7253	Erie Sport Store 701 State St Erie, PA 16501 (814) 452-2289
Erie Sport Store 124 East 8th St Erie, PA 16501 (814) 452-2289	Prints & More By Holly 3127 Peach St Erie, PA 16508 (814) 453-5548	Rectenwald Blueprint Supl Po Box 6202 Erie, PA 16512 (814) 456-2415
Rectenwald Blueprint Supl 152 W 12th St Erie, PA 16501 (814) 456-2415	Pines Of Oleona Rr 1 Box 257 Gaines, PA 16921 (814) 435-8225	Kline's Gift Shoppe Rd 1 Box 220 Galeton, PA 16922 (814) 435-2583
Longs Carter Camp Lodge Store Rd 1 Box 93d Galeton, PA 16922 (814) 345-1192	Gettysburg Christian Bookstore 24 Chambersburg St Gettysburg, PA 17325 (717) 334-8634	Redding's Hardware 279 S Franklin St Gettysburg, PA 17325 (717) 334-5211
T And R Sporting Goods 1725 Franklin St Greensburg, PA 15601 (412) 836-5933	Promised Land Trading Post Rd 1 Route 390 Box 79a Greentown, PA 18426 (717) 676-4520	Grizzly's Go'n Fish'n Clark F Hallock Rr2 Box 513 Hawley, PA 18428 (717) 226-0624
J Vance Hunt & Son 217 Main Ave Hawley, PA 18428 (717) 226-4300	Deemer Company 57 N Wyoming Ave Hazelton, PA 18201 (717) 455-5838	Renningers Country Store Po Box 99 Route 87 Hills Grove, PA 18619 (717) 924-3505
Blair County Conservation Dist 1407 Blair St Hollidaysburg, PA 16648 (814) 696-0877	Mark R Zimmer Assoc 317 Tenth St Honesdale, PA 18431 (717) 253-4321	Modern Explorer Products Redstone Furnace Rd Po Box 588 Hopwood, PA 15445 (412) 438-7686

Original Book Swap Inc 316 Horsham Rd Horsham, PA 19044 (215) 674-3919	Huntingdon Cnty Conserv Dist Shirley Clark Route 26s Rr 1 Box 7c Huntingdon, PA 166529603 (814) 627-1627	Allegheny Design Map 711 Tamarack Dr Imperial, PA 15126 (412) 695-8480
Henry Hall Office Products 714 Philadelphia St Indiana, PA 15701 (412) 463-9111	Indiana Cnty Conserve Dist 251 Route 286 North Ag Service Center Indiana, PA 157019011 (412) 463-7702	Pa Dept Of Trnsprtn Route 286 South Po Box 429 Indiana, PA 15701 (412) 357-2802
Blue Mountain Sports Wear 34 Susquehanna St Jim Thorpe, PA 18229 (717) 325-4421	Allegheny Outdoors Rt 6 West Rd 2, Box 229 Kane, PA 16735 (814) 837-8270	Kane True Value Hardware 150 Fraley St Kane, PA 16735 (814) 837-6682
Eastern Mountain Sports Inc 160 N Gulph Rd Space 3212 King Of Prussia, PA 19406 (603) 924-9571	Franklin Maps 333 S Henderson Rd King Of Prussia, PA 19406 (610) 265-6277	Deemer Company 251 Wyoming Ave Po Box 1348 Kingston, PA 18704 (717) 288-6533
Uncle Eyeballs Mte 338 Pierce St Kingston, PA 18704 (717) 288-3999	Armstrong County Conserve Dist Armsdale Admn Bldg Rd 8 Box 294 Kittannig, PA 16201 (412) 548-3425	County Armstrong Admn Bldg Market St Kittanning, PA 16201 (412) 548-3234
Wd Mohny Assoc Keystone Bldg 3rd Fl 131 N Mckean St Po Box 916 Kittanning, PA 16201 (412) 543-1023	Acer Engineers & Consultants Ray Sawyer 270 Granite Run Drive Lancaster, PA 176016822 (717) 569-7021	The Wilderrest Regency Square 161 Rohrerstown Rd Lancaster, PA 17603 (717) 291-5881
Robert P Mcombs Asso Mahoning Township 83 Birchwood Dr Lehighon, PA 18235 (610) 377-2094	Garbart Engineering Co Po Box 4a Lemont Furnace, PA 15456 (412) 439-1313	Camp Hill Distributors 331 Market Street Po Box 306 Lemoyne, PA 17043 (717) 737-6461
Mid Penn Engrg Corp 2033 W Market St Po Box 51 Lewisburg, PA 17837 (717) 524-2214	Cooper's Sporting Goods Dan Pierce Outdoor Shop 842 W Fourth St Lewistown, PA 17044 (717) 662-3429	Holiday Home Store 120 North Market Street Ligonier, PA 15658 (412) 238-3721
Miltech Energy Services Inc 115 S Market St Rear Ligonier, PA 15658 (412) 238-6439	Lititz Springs Outfitters 49 N Broad St Lititz, PA 17543 (717) 626-1009	Varanavage Shooting Supply 432 W South St Mahanoy City, PA 17948 (717) 773-0756
Varanavage Shooting Supply 433 W Spruce St Mahanoy City, PA 17948 (717) 773-0756	Cooper's Sporting Goods 15 West Wellsboro Street Mansfield, PA 16933 (717) 662-3429	Fulton Conservation Dist 216 N Second St Mc Connellsburg, Pa 17233 (717) 485-3547

Robert Snyder Agcy 101 Lincoln Way East Po Box 717 Mcconnellsburg, PA 17233 (717) 485-4220	Crawford Conservation Dist 1012 Water St Ste 18 Meadville, PA 16335 (814) 724-1793	Snyder County Conservation 403 W Market St Middleburg, PA 178421038 (717) 837-0085
Miller's Gun Shop Rr 3 Box 471 Mill Hall, PA 17751 (717) 726-3030	Stagecoach Stop Rr 1 Box 662 Millmont, PA 17845 (717) 922-1053	Barnes Noble Bookstores Inc Penn State Bookstore #438 Broadhead Rd. Monaca, PA 15061
Lyon Camping Supply 341 Broad St Montoursville, PA 17754 (717) 368-2501	Benners General Store Main St (Us Route 287) Po Box 288 Morris, PA 16938 (717) 353-9421	Maps Plus Attn Gerald Branthoover Rr, Box 400 B Morrisdale, PA 16858 (800) 531-6277
Kaufmans Hardware 102 E Neshannock Ave New Wilmington, PA 16142 (412) 946-3181	The Wilderness Trekker Route 61 Rd 1 Box 1243c Orwigsburg, PA 17961 (717) 366-0165	Ocean Info Research Center 100 North 17th Street Philadelphia, PA 19103 (215) 567-7888
Pilothouse 1100 S Delaware Ave Philadelphia, PA 19147 (215) 336-6414	Huch's Sport Shop 9012 Perry Hwy Pittsburgh, PA 15237 (412) 364-5006	J R Weldin Co 415 Wood St Pittsburgh, PA 15222 (412) 281-0123
Pen Oh Wes Map Co Time Building 336 4th Ave Pittsburgh, PA 15222 (412) 261-0645	Timberline Sport Shop Rt 940 Po Box 842 Pocono Lake, PA 18347 (717) 646-4754	Schuylkill County Planning 401 North Second Street Pottsville, PA 17901-2520 (717) 628-1415
Vapco Engineering Co Route 119 & 210 Intersection Po Box 327 Punxsutawney, PA 15767 (814) 938-3700	Moyers Office City 22-28 N 6th St Reading, PA 19601 (610) 374-3137	Loves Canoe Rental Sales 3 Main St 3 Main St Ridgway, PA 15853 (814) 776-6285
Deemer Company 209 N Washington Ave Scranton, PA 18503 (717) 342-0201	Deemer Company 209 N Washington Ave Scranton, PA 18503 (717) 342-0201	Seneca Outpost Route 257 Po Box 715 Seneca, PA 16346 (814) 676-6099
J L Sporting Goods Rd 2 Box 441a Shippenville, PA 16254 (814) 226-8211	Tom Schaeffers Camping Travel Ctr Inc 1236 Pottsville Pike Shoemakersville, PA 19555 (610) 562-3071	Dennis Sport Shop Rd 1 Box 1452 Shohola, PA 18458 (717) 296-6283
Carey's Country Store Rte 120 PO Box 38 Sinmahoning, PA 15861 (814) 546-2074	Mckean County Planning Comm County Courthouse 500 Main Street Smethport, PA 16749 (814) 887-5571	Eastern States Exploration Co Route 144 Po Box 178 Snow Shoe, PA 16874 (814) 387-6565

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<p>Army Navy Discount 102-106 W Main St Somerset, PA 15501 (814) 445-7087</p>	<p>Earthtech Ste 200 614 S Franklin Ave Somerset, PA 15501 (814) 443-3384</p>	<p>Killam Associates 651 S Center Ave Somerset, PA 15501 (814) 445-5645</p>
<p>Somerset Conservation Dist 1590 N Center Ave Ste 103 Somerset, PA 15501 (814) 445-4652</p>	<p>Somerset County Planning Comm 165 East Union Street Suite 200 Somerset, PA 15501 (814) 443-1431</p>	<p>Elk Co Ammo Arms 246 Bruxelles St Box 246 St Marys, PA 15857 (814) 834-9318</p>
<p>Smiths Sport Store 10 Erie Ave St Marys, PA 15857 (814) 834-3701</p>	<p>Appalachian Ski Outdoors 324 W College Ave State College, PA 16801 (814) 234-4284</p>	<p>Student Bookstore 330 E College Ave State College, PA 16801 (814) 237-7616</p>
<p>Pj Bait Sport Shop Rr 1 Box 270 Stillwater, PA 17878 (717) 864-3147</p>	<p>Dunkelbeger's Sporting Goods 585 Main St Stroudsburg, PA 18360 (717) 421-7950</p>	<p>Forest County Sports Center 311 Elm St Tionesta, PA 16353 (814) 755-3744</p>
<p>Hallers Sporting Goods 632 Elm St Tionesta, PA 16353 (814) 755-4475</p>	<p>Bradford Cty Cons Dist Stoll Natural Resource Center Rr 5 Box 5030c Towanda, PA 18848 (717) 265-5539</p>	<p>Wyoming County Conserve Dist Rr 3 Box 178b Tunkhannock, PA 18657 (717) 836-5111</p>
<p>Black Forest Trading Post James P Verbjar Rr1 Box 130g Ulysses, PA 16948 (814) 435-6754</p>	<p>Nine Mile Lakeside Cottages Motel Us Highway 6 Rd 1 Box 117 Ulysses, PA 16948 (814) 435-2394</p>	<p>Fayette Engineering Company University Drive Po Box 1030 Uniontown, PA 15401 (412) 438-5573</p>
<p>Holmes Sporting Goods 5 Pennsylvania Ave E Warren, PA 16365 (814) 723-8810</p>	<p>Warren County Conserve Dist 110 Yankee Bush Rd Warren, PA 16365 (814) 723-7700</p>	<p>Washington Reprographics 234 E Maiden St Washington, PA 15301 (412) 228-0420</p>
<p>Erie County Conservation Dist 12723 Rt 19 Po Box 801 Waterford, PA 16441 (814) 796-4203</p>	<p>Whearys Country Store Route 44 Po Box 92 Waterville, PA 17776 (717) 753-8241</p>	<p>Greene Cnty Conservation Dist Ben Franklin Bldg 22 W High St Ste 203 Waynesburg, PA 153701324 (412) 852-1171</p>
<p>Davis Sporting Goods 9 Charleston St Wellsboro, PA 16901 (717) 724-2626</p>	<p>Nestor Sporting Goods Inc 2510 Macarthur Rd Whitehall, PA 18052 (215) 433-6051</p>	<p>Top Of The Slope 100 S Main St Wilkes-Barre, PA 18701 (717) 822-6627</p>
<p>Plankenhorn Statnry Co 144 W Fourth St Williamsport, PA 17701 (717) 326-2676</p>	<p>Yoas Services Inc 509 W Fourth St Williamsport, PA 17701 (717) 326-2041</p>	<p>Warren County Conserve Dist 609 Rouse Home Ave Ste 203 Youngsville, PA 16371 (814) 563-3117</p>



Coordination # \_\_\_\_\_

COMMONWEALTH OF PENNSYLVANIA  
 DEPARTMENT OF ENVIRONMENTAL PROTECTION  
 BUREAU OF WATERSHED CONSERVATION

**APPLICATION FOR WATER ALLOCATION**

<p><b>Before completing this form,                  read the step-by-step instructions                  provided with this Permit form.</b></p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: center; padding: 2px;">DEP USE ONLY</th> </tr> <tr> <td style="padding: 5px;">                     Application ID# (Assigned by DEP) _____                      Stamp Date Application Received _____                 </td> </tr> </table>	DEP USE ONLY	Application ID# (Assigned by DEP) _____ Stamp Date Application Received _____
DEP USE ONLY			
Application ID# (Assigned by DEP) _____ Stamp Date Application Received _____			

**SECTION A. APPLICANT IDENTIFIER**

Applicant Name: \_\_\_\_\_

**SECTION B.**

For public water supply agencies where a municipal authority and a municipality are involved jointly in the financing, operation and maintenance of the water system, describe the relationship of the municipal authority to the municipality and the respective duties and functions of each entity.

**SECTION C. SOURCE(S) FOR WHICH ALLOCATION IS BEING REQUESTED:**

Name of Source <sup>1</sup>	Quantity of Allocation Requested (gpd)	Type <sup>2</sup>	Safe Yield <sup>3</sup> (gpd)	Location of Taking Point (latitude/longitude)
<b>TOTAL</b>				XXXXXXXXXXXXXXXXXXXX

<sup>1</sup> Applications for subsidiary allocation must be accompanied by a statement from the public water supply agency or person providing water that the proposed quantity is available for acquisition by the applicant where the contract amount does not agree with the allocation request. For applications for subsidiary allocation only, Column 4 (Safe Yield) need not be completed and Column 5 (Taking Point) should indicate location of interconnection. Subsidiary permits are issued on a peak month 30-day basis.

<sup>2</sup> Type: Peak Day - PD, Peak Month (30-day) - PM, Average Day - AD, Average Annual - AA, Other - O (explain).

<sup>3</sup> Provide method of computation.

**SECTION D. PRIOR PERMITS DETAIL**

Name of Permit	Permit Issue Date	Permit Number
Public Water Supply Permit		
Dams Permit		
Soils and Waterways Permit		
Other		

**SECTION E. ALLOCATION REQUEST JUSTIFICATION**

Show by calculation how the Quantity of Allocation Requested was determined. Will this allocation be adequate for the next 25 years? Describe alternative sources of supply considered in lieu of requesting a new or increased allocation for the sources listed in Section C.

**SECTION F. EXISTING SOURCES, INCLUDING WELLS:**

Name of Source	Average Daily Withdrawal <sup>1</sup> (gpd)	Days Use During Calendar Year	Safe Yield <sup>2</sup> ( d/ d)	Wells		Type of Use <sup>3</sup>	Location of Taking Point (latitude/longitude)	Is Withdrawal from Source Metered? (Yes / No)
				Depth (ft)	Diameter (in)			
<b>TOTAL</b>				<b>XXXX</b>	<b>XXXX</b>	<b>XXXX</b>	<b>XXXXXXXXXXXX</b>	<b>XXXXXXXXXXXX</b>

<sup>1</sup> Provide as an attachment monthly Daily Water Withdrawal Reports for the most recent two calendar years.  
<sup>2</sup> Provide method of computation or submit copies of test data.  
<sup>3</sup> Indicate if source is used on Regular-R, Auxiliary-A, or Emergency-E basis.

**SECTION G. INTERCONNECTIONS WITH OTHER PUBLIC WATER SUPPLIERS:<sup>1</sup>**

a. List each interconnection with other public suppliers. (Mark with an "M" if metered and an "E" if for emergency use)

Name of Supplier	Average Quantity of Water Transferred (gpd)				Maximum Transfer Limit per Agreement (gpd)		Maximum Hydraulic Transfer Capability (gpd)	
	From Applicant		To Applicant		From Applicant	To Applicant	From Applicant	To Applicant
	Quantity	Days	Quantity	Days				
<b>TOTAL</b>		<b>XX</b>		<b>XX</b>	<b>XXXXXXXX</b>	<b>XXXXXXXX</b>		

<sup>1</sup> Provide for each interconnection with other public water suppliers, both existing and proposed, a copy of the current agreement governing the transfer of water.  
b. Provide as an attachment the most recent two calendar-year history for each interconnection listed above, showing the date of meter reading and gallons transferred

**SECTION H. INSTREAM INTAKES EXCLUDING DAMS (existing and/or proposed)**

Name of Stream	Location (latitude/longitude)	Drainage Area ( sq mi )

**SECTION I. RAW WATER INTAKE DAMS AND STORAGE DAMS:<sup>1</sup> (existing and/or proposed)**

Name of Stream	Year Built	Year Last Sedimentation Survey	Location (latitude/longitude)	Storage Capacity (mg)	Surface Area (acres)	Drainage Area (sq mi)	Release Works <sup>2</sup>	
							Yes	No
							<input type="checkbox"/>	<input type="checkbox"/>
							<input type="checkbox"/>	<input type="checkbox"/>
							<input type="checkbox"/>	<input type="checkbox"/>
							<input type="checkbox"/>	<input type="checkbox"/>
							<input type="checkbox"/>	<input type="checkbox"/>
							<input type="checkbox"/>	<input type="checkbox"/>
							<input type="checkbox"/>	<input type="checkbox"/>
							<input type="checkbox"/>	<input type="checkbox"/>

<sup>1</sup> Include reservoir elevation-area-capacity curve for each dam as an attachment to this application.

<sup>2</sup> Does the dam have facilities to provide a release of water to the stream when water is not flowing over the spillway or top of dam? If yes, describe length, diameter, depth, valving, etc.

**SECTION J. WATER TREATMENT PLANTS INCLUDING CHLORINATION FACILITIES (MARK WITH A "C"):**

Name	Location (latitude/longitude)	Design Capacity (gpd)	Permitted Capacity (gpd)	Average Daily Quantity Treated (gpd)	Average Daily Hours Operated (hrs)

Will present treatment plant(s) be expanded or a new plant constructed? Yes  No  If yes, has application been made for a public water supply permit? Yes  No  Date of application \_\_\_\_\_

**SECTION K. TREATED STORAGE RESERVOIRS, STANDPIPES OR TANKS (existing "E" and/or proposed "P")**

Name	Location (latitude/longitude)	Type of Construction	Storage Capacity (gallons)	Is Reservoir Covered?	
				Yes	No
				<input type="checkbox"/>	<input type="checkbox"/>
				<input type="checkbox"/>	<input type="checkbox"/>
				<input type="checkbox"/>	<input type="checkbox"/>
				<input type="checkbox"/>	<input type="checkbox"/>
				<input type="checkbox"/>	<input type="checkbox"/>
				<input type="checkbox"/>	<input type="checkbox"/>
				<input type="checkbox"/>	<input type="checkbox"/>
				<input type="checkbox"/>	<input type="checkbox"/>
				<input type="checkbox"/>	<input type="checkbox"/>
<b>TOTAL</b>	XXXXXXXXXXXXXX	XXXXXXXXXXXXXX		XXX	XXX





**SECTION N. QUANTITY OF WATER**

Quantity of water supplied in each of the past 10 calendar years: (If less than 10 years of data or no peak day is available, provide an explanation why it is not available)

Year	Average Day (gallons)		Peak Day (gallons)		Peak/Average Ratio
	metered <input type="checkbox"/>	estimated <input type="checkbox"/>	metered <input type="checkbox"/>	estimated <input type="checkbox"/>	

**SECTION O. WATER USE FOR MOST RECENT CALENDAR YEAR LISTED ABOVE:**

Type Use	Metered Connections		Nonmetered Connections	
	Number	Water Use (gpd)	Number	Water Use (gpd)
Domestic				
Commercial				
Industrial				
Institutional				
Bulk Sales to Other Suppliers				
Municipal (Identify Below)				
Other (Identify Below)				
Leakage and Loss				
<b>TOTALS</b>				<b>s</b>

Identification of Municipal Uses: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Identification of Other uses: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**SECTION P. NAMES AND ADDRESSES OF PUBLIC WATER SUPPLY AGENCIES**

Provide the names and addresses of public water supply agencies or other users downstream of the source(s) which may be affected by the present or proposed acquisition(s).

Provide the names and addresses of public water supply agencies or other users upstream of the source(s) which may affect the present or proposed acquisition(s).

## **SECTION Q. METHODS BY WHICH THE PROPOSED ACQUISITION OF WATER RIGHTS OR WATER IS TO BE EFFECTED**

Method or methods by which the proposed acquisition of water rights or water is to be effected, i.e., merger, consolidation, purchase, eminent domain, etc.

## **SECTION R. IMPACT OF THE PROPOSED ACQUISITION**

Describe the impact the proposed acquisition will have on aquatic life and other instream uses and needs. Provide details and a copy of any biological, instream flow or other studies which have been completed on sources listed in Section C. Provide information as to which species of fish occur within the stream both above and below the point of withdrawal. A statement that no impacts are expected since the withdrawal has been occurring for the past X years is not an acceptable answer.

## **SECTION S. DESCRIPTION OF THE SYSTEM'S OPERATION**

Describe the system's present and proposed future operation, including a description of major facilities, and all plans for any major future expansion, modification, or other alteration of facilities or addition of new service area.

## **SECTION T. TIMETABLE**

Provide a timetable for the construction of facilities required to use the requested allocation. (Examples - new dam, new intake, new pipeline, new treatment plant, additions or modification, etc.)

## **SECTION U. DESCRIPTION OF PRESENT AND FUTURE WATER CONSERVATION PROGRAM**

Describe the applicant's present and future water conservation program. The Department will review the program for the inclusion of the following items:

- (1) A continuing, scheduled program of public education utilizing public media and direct contact with customers to encourage water conservation.
- (2) A program in cooperation with local governments in the service area, to develop, adopt, and implement an ordinance requiring the use of flow-reduction devices in all new construction and remodeling work requiring a building permit.
- (3) Contact and consultation with significantly large multi-family residential, institutional, industrial, and commercial water users to encourage the implementation of all feasible water conservation measures.
- (4) Contact with plumbing, hardware, and/or plumbing fixture suppliers to encourage the sale and promotion of flow reduction equipment.
- (5) A program which incorporates water conservation requirements in service agreements with new users, particularly for residential subdivisions and industrial and/or commercial developers as well as existing users.
- (6) Installation of water meters to record water use by each individual household, commercial, industrial, or other user. How are apartment houses and other multiple dwelling units metered?
- (7) A systematic program to test meters measuring withdrawals from the source(s) on a regularly scheduled basis to insure their accuracy.
- (8) A program to test customer service meters on a regular schedule of inspection, repair, and replacement to insure their measuring accuracy. Indicate meter testing/replacement schedule, including the number of each size meter tested/replaced on an annual basis.

## **SECTION V. DESCRIPTION OF LEAK DETECTION PROGRAM**

Provide a description of the applicant's present and future leak detection program. The Department will review the program for the inclusion of the following items:

- (1) A regular program to detect and correct water leakage in the system.
- (2) A program for installing, maintaining, and regularly reading measuring devices at strategic points in the water system so that leaks may be detected, isolated, and repaired.
- (3) A systematic program for the replacement and rehabilitation of transmission and distribution lines and facilities.
- (4) A system to maintain records of the actions taken to monitor, repair, and prevent system losses. Give details on record-keeping and review of system losses.
- (5) A regular schedule of valve and hydrant inspection for operability and leakage. Indicate the total number of hydrants and valves within the system and the percentage of each sounded and exercised on an annual basis.

## **SECTION W. DAILY OPERATIONS PLAN INCORPORATING A DROUGHT CONTINGENCY PLAN**

Does the applicant have a daily operations plan incorporating a drought contingency plan? Provide a copy of the applicant's daily operations plan. The plan must include the following items.

- (1) Explanation of daily decisions on which sources are utilized.
- (2) Monitors to measure availability of water at the source(s).
- (3) Triggering levels to take actions during droughts.
- (4) Measures to be taken to conserve the available water supply.
- (5) Staged voluntary and mandatory water use restrictions.
- (6) The identification of available emergency sources or interconnections.
- (7) A means of enforcing the water use restrictions.

**SECTION X. OVERALL SYSTEM MAP (PLEASE READ INSTRUCTIONS FOR THIS SECTION)**

This application must be accompanied by an overall system map on 7.5 minute series USGS Quadrangle maps showing the locations of the present and proposed surface and groundwater sources of supply, including and labeling all pumping stations, purification and/or filter plants, reservoirs, wells, springs, booster stations, standpipes, transmission mains and interconnections with other suppliers, and an outline of the present and proposed future service area. The map must also show service areas of wastewater treatment plants, their points of discharge, and a delineation of areas served by on-lot septic systems, if applicable.

**SECTION Y. CERTIFICATE AND SIGNATURE**

**AFFIDAVIT**

Commonwealth of Pennsylvania, County Of \_\_\_\_\_

I, \_\_\_\_\_, being duly sworn, according to law, depose and say that I (am the applicant) (am an officer or official of the applicant) (have the authority to make this application) and that the plans, reports and documents submitted as part of the application are true and correct to the best of my knowledge and belief.

Sworn and Subscribed to before me this

\_\_\_\_\_ Day Of \_\_\_\_\_ 19 \_\_\_\_\_

\_\_\_\_\_  
SIGNATURE OF RESPONSIBLE OFFICIAL

\_\_\_\_\_  
NOTARY PUBLIC

THE SECTION BELOW IS TO BE COMPLETED BY THE ENGINEER AUTHORIZED BY THE APPLICANT TO PREPARE THIS APPLICATION

Name of Engineer and Firm			<p><b>ENGINEER'S</b></p> <p><b>SEAL</b></p>
Mailing Address			
Telephone Number	Fax Number	E-mail Address	



COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
BUREAU OF WATERSHED CONSERVATION

Coordination # \_\_\_\_\_

## APPLICATION FOR WATER ALLOCATION CHECKLIST FOR SUBMITTAL

**APPLICANT'S ✓ CHECKLIST**

Please check the following list to make sure that you have included all the required information. Place a check mark in the column provided for all items completed and/or provided.

Failure to provide all of the requested information will delay the process of the application and may result in the application being placed ON HOLD with NO ACTION, or being considered withdrawn and the application file closed.

ENCLOSE THIS CHECKLIST WITH YOUR APPLICATION FORM.

\* \* \* FOR DEP USE \* \* \*  
Application ID# \_\_\_\_\_  
Stamp Date Application Received \_\_\_\_\_

	Requirement	Check 3 If Included
1.	Have you read all the instructions accompanying the application form prior to completing the form?	<input type="checkbox"/>
2.	Have all items been completed?	<input type="checkbox"/>
3.	<u>Has additional information been provided, where required?</u>	<input type="checkbox"/>
4.	Has application been signed and notarized?	<input type="checkbox"/>
5.	Has a specific quantity of allocation been requested for each source listed in Section C?	<input type="checkbox"/>
6.	Has required map been prepared and enclosed? (See instructions and application Section X). If the required map covering the following items is not included, the application is incomplete and will be returned to the applicant.	<input type="checkbox"/>
	Sources of Supply:	
	Wells	<input type="checkbox"/>
	Springs	<input type="checkbox"/>
	Reservoirs	<input type="checkbox"/>
	Interconnections	<input type="checkbox"/>
	Intakes	<input type="checkbox"/>
	Standpipes	<input type="checkbox"/>
	Present Service Area	<input type="checkbox"/>
	Future Service Area	<input type="checkbox"/>
	Wastewater System Service Area	<input type="checkbox"/>
	Points of Discharge	<input type="checkbox"/>
7.	Has application fee been enclosed? (\$25 Check or money order payable to the Commonwealth of Pennsylvania)	<input type="checkbox"/>
8.	Have you complied with the requirements for Municipal Notification? (see page 10 of Instructions)	<input type="checkbox"/>