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in excess of 10,000 gallons shall notify the Executive Director not less than 30 days prior to initiation of exploratory drilling. Such notice shall be in writing and shall specify the location of proposed new facility, the anticipated rate of withdrawal, and the general purpose of the proposed water use. The notice shall also state the location of existing wells within the radius set forth in § 430.21(a).

(b) Whenever the Executive Director shall deem necessary, or upon request of a party proposing a new or expanded withdrawal of ground water, an informal conference may be scheduled to review the nature of the proposed withdrawal, the applicability of the Commission's standards relating to ground water, and the requirements of a protected area permit under this regulation.

§ 430.13 Protected area permits for new withdrawals.

Any person, firm, corporation or other entity who proposes to develop a new ground water withdrawal or expand an existing ground water withdrawal for any purpose within the Southeastern Pennsylvania Ground Water Protected Area shall be required to obtain a protected area permit under this regulation if the proposed new or increased rate of withdrawal from a well or group of wells operated as a system average more than 10,000 gallons per day over a 30-day period. Whenever the Executive Director, upon investigation or upon a reference from a state or federal agency, determines that a new or increased withdrawal from a group of wells within the protected area, whether or not such wells are operated as a system, may have a substantial effect on the water resources of the basin or is likely to have a significant adverse effect on other water uses within the protected area, the Commission may direct a notice to the owners or sponsors of such wells, and require such owners or sponsors to apply for and obtain a protected area permit under this regulation.

(a) Applications for a protected area permit shall be submitted to the Commission on forms approved by the Executive Director. Each application

shall be accompanied by the following information:

(1) A map indicating the location of existing wells and perennial streams.

(2) A written report prepared by a hydrogeologist describing the expected effects of the proposed withdrawal on existing wells, flows of perennial streams and the long-term lowering of ground water levels.

(3) A log showing the nature of subsurface material encountered during the construction and installation of the exploratory or production well(s).

(4) The detailed results of extended pump tests, of not less than 48 hours duration, and records of observations during such pump tests from representative monitoring wells.

(b) Applications for a protected area permits whose daily average withdrawal during any calendar month is in excess of 10,000 gallons shall be accompanied by an application fee of \$100. Government agencies shall be exempt from such application fee.

(c) If the application for a protected area permit is for a daily average withdrawal during any calendar month in excess of 100,000 gallons, it shall be accompanied by such other information or exhibits required by Article 3 of the Commission's Rules of Practice and Procedure. In such cases, only the application fee required by the Rules will be assessed.

(d) To qualify for approval of a protected area permit, the owner or sponsor of the proposed withdrawal shall demonstrate that:

(1) The proposed withdrawal is consistent with the Commission's Comprehensive Plan and the policies and purposes of these regulations.

(2) Opportunities to satisfy water requirements on a timely basis from existing available supplies and facilities have been explored and found infeasible.

(3) The proposed withdrawal, in conjunction with other withdrawals in the applicable ground water basin, will not exceed withdrawal limits of a ground water basin, aquifer or aquifer system.

(4) The proposed withdrawal will not significantly impair or reduce the flow of perennial streams in the area.

(5) Existing ground and surface water withdrawals will not be adversely impacted, or will be otherwise assured of adequate supplies in accordance with the requirements of § 430.19 of this part.

(6) The proposed withdrawal will not cause substantial, permanent adverse impact to the overlying environment.

(7) The owner or sponsor has adopted and will implement conservation and management programs as required by § 430.15 of this part.

(e) Ground water withdrawals for space heating or cooling purposes that are less than 100,000 gallons per day shall be exempt from obtaining a protected area permit provided that the water withdrawn is returned locally, and to the same ground water basin and aquifer system from which it is withdrawn, undiminished in quantity and quality (except temperature). Ground water withdrawals for space heating or cooling that are subsequently used for commercial or industrial water supply purposes are subject to Commission withdrawal and wastewater discharge regulations. Ground water withdrawals exempted pursuant to this subsection shall be subject to the registration requirements of § 430.17.

(f) All ground water withdrawal projects exempted by subsection "e" above shall be constructed in conformance with accepted industry practice and as a minimum shall comply with the following standards:

(1) All wells shall be drilled by a Pennsylvania licensed well driller and a Water Well Inventory Report shall be completed and filed with the Pennsylvania Department of Environmental Resources (PADER);

(2) No wells shall be located within a 100-year floodway;

(3) All wells shall have top of casing extended a minimum of one foot above the 100-year flood elevation;

(4) All wells shall have the casing protruding a minimum of six inches above the immediate surrounding grade;

(5) The area around all wells or well pits shall be constructed and/or graded to prevent the entrance of surface waters;

(6) All wells shall be accessible for inspection and shall have an access hole for water level measurements;

(7) In order to protect against significant leaks of refrigerant, all ground water heat pump systems shall be equipped with an automatic shutdown device that senses abnormally low or abnormally high refrigerant pressures;

(8) Any drilled well holes that are abandoned shall be sealed with a minimum of ten feet of cement grout. Additional seals may be required to separate different water-bearing zones.

(g) Protected area permits shall be approved or disapproved by the Executive Director with the concurrence of the Pennsylvania member of the Commission or his alternate.

(h) Dockets and protected area permits may be issued for a duration of up to ten years and shall specify the maximum total withdrawals that must not be exceeded during any consecutive 30-day period. Such maximum total withdrawals shall be based on demands projected to occur during the duration of the docket or protected area permit.

(i) Ground water withdrawal limits shall be defined for subbasins in accordance with the provisions of (i)(1) or (2) of this section. The limits for specific subbasins are set forth in (i)(3) of this section.

(1) Baseflow frequency analyses shall be conducted for all subbasins in the Southeastern Pennsylvania Ground Water Protected Area. The analyses shall determine the 1-year-in-25 average annual baseflow rate. The 1-year-in-25 average annual baseflow rate shall serve as the maximum withdrawal limit for net annual ground water withdrawals for subbasins. If net annual ground water withdrawals exceed 75 percent of this rate for a subbasin, such a subbasin shall be deemed "potentially stressed." The Commission shall maintain a current list of net annual ground water withdrawals for all subbasins. "Net" annual ground water withdrawals includes total ground water withdrawals less total water returned to the ground water system of the same subbasin.

(2) Upon application by the appropriate governmental body or bodies, the withdrawal limits criteria set forth in (i)(1) of this section may be revised

by the Commission to provide additional protection for any subbasin identified in (i)(3) of this section with streams or stream segments designated by the Commonwealth of Pennsylvania as either "high quality," or "exceptional value," or "wild," or "scenic," or "pastoral," or to correspond with more stringent requirements in integrated resource plans adopted and implemented by all municipalities within a subbasin identified in (i)(3) of this section. Integrated resource plans shall be developed according to sound principles of hydrology. Such plans shall at a minimum assess water resources and existing uses of water; estimate future water demands and resource requirements; evaluate supply-side and demand-side alternatives to meet water withdrawal needs; assess options for

wastewater discharge to subsurface formations and streams; consider stormwater and floodplain management; assess the capacity of the subbasin to meet present and future demands for withdrawal and nonwithdrawal uses such as instream flows; identify potential conflicts and problems; incorporate public participation; and outline plans and programs including land use ordinances to resolve conflicts and meet needs. Integrated resource plans shall be adopted and implemented by all municipalities within a subbasin and incorporated into each municipality's Comprehensive Plan.

(3)(i) The potentially stressed levels and withdrawal limits for all delineated basins and subbasins are set forth below:

Subbasin	Potentially Stressed (mg _y) ¹	Withdrawal Limit (mg _y)
Neshaminy Creek Basin		
West Branch Neshaminy Creek Basin	1054	1405
Pine Run Basin	596	795
North Branch Neshaminy Creek	853	1131
Doylestown Subbasin Neshaminy Creek	710	946
Warwick Subbasin Neshaminy Creek	889	1185
Warrington Subbasin Little Neshaminy Creek	505	673
Park Creek Basin	582	776
Warminster Subbasin Little Neshaminy Creek	1016	1355
Mill Creek Basin	1174	1565
Northampton Subbasin Neshaminy Creek	596	794
Newtown Creek	298	397
Core Creek Basin	494	658
Ironworks Creek Basin	326	434
Schuylkill River Basin	3026	4034
Lower Section Subbasin Neshaminy Creek		
Hay Creek	974	1299
Lower Reach Manatawny-Ironstone Creek	1811	2414
Pigeon Creek	611	815
Schuylkill-Crow Creek	1157	1543
Schuylkill-Mingo Creek	671	895
Schuylkill-Plymouth-Mill Creeks	4446	5929
Schuylkill-Sixpenny Creek	1490	1987
Schuylkill-Sprogels Run	1091	1455
Schuylkill-Stony Creek	687	916
Schuylkill-Trout Creek	1082	1443
Stony Creek	1242	1655
Valley Creek	1865	2486
French and Pickering Creek Subbasins		
Lower Reach French Creek	634	845
Lower Reach Pickering Creek	1716	2288
Middle Reach French Creek	1608	2145
South Branch French Creek	1044	1393
Upper Reach French Creek	1295	1726
Upper Reach Pickering Creek	1358	1811
Perkiomen and Skippack Creek Subbasins		
East Branch Perkiomen-Indian Creeks	633	844
East Branch Perkiomen-Mill Creeks	720	961
East Branch Perkiomen-Morris Run	1214	1619
Hosensack-Indian Creeks	1257	1676
Lower Reach Skippack Creek	1069	1426

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Subbasin	Potentially Stressed (mgy) ¹	Withdrawal Limit (mgy)
Perkiomen-Deep Creeks	1047	1396
Perkiomen-Lodal Creeks	1200	1600
Perkiomen-Macoby Creek	1252	1669
Swamp-Middle Creeks	1423	1898
Swamp-Minister Creeks	547	730
Swamp-Scioto Creeks	746	994
Towamencin Creek	466	622
Unami-Licking Creeks	992	1322
Unami-Ridge Valley Creeks	1068	1424
Upper Reach Perkiomen Creek	1223	1631
Upper Reach Skippack Creek	813	1084
West Branch Perkiomen Creek	1566	2088
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Jericho Creek	421	562
Mill Creek	1600	2134
Paunnaussing Creek	513	684
Pidcock Creek	563	751
Upper Reach Cobbs Creek	871	1161
Upper Reach Crum Creek	1290	1721
Upper Reach Darby Creek	1625	2167
Upper Reach East Branch Chester Creek	1865	2487
Upper Reach Frankford Creek	1414	1886
Upper Reach Poquessing Creek	1008	1344
Upper Reach Ridley Creek	1707	2275
Tohickon Subbasin		
Tohickon-Beaver-Morgan Creeks	1156	1541
Tohickon-Deep Run	956	1274
Tohickon-Geddes-Cabin Runs	602	803
Tohickon-Lake Nockamixon	556	741
Tohickon-Three Mile Run	726	968
Pennypack and Wissahickon Subbasins		
Lower Reach Wissahickon Creek	2750	3666
Upper Reach Wissahickon Creek	1302	1736
Middle Reach Pennypack Creek	1295	1727
Upper Reach Pennypack Creek	1358	1811
Brandywine Creek Subbasin		
East Branch Brandywine-Taylor Run	1054	1405
Middle Reach Brandywine Creek	823	1098
Upper Reach Brandywine Creek	1614	2153
West Branch Brandywine-Beaver Run	2110	2813
West Branch Brandywine-Broad Run	2380	3173
West Valley Creek	1673	2231
Lehigh Subbasin		
Upper Reach Saucon Creek	946	1262

¹ mgy means million gallons per year.

(ii) Subject to public notice and hearing, this section may be updated or revised based upon new and evolving information on hydrology and streamflow and ground water monitoring or in accordance with paragraph (i)(2) of this section.

(j) Upon its determination that a subbasin is potentially stressed, the Commission shall notify all ground water users in the subbasin withdrawing 10,000 gallons per day or more during any 30-day period of its determination. If any such users have not obtained a docket or protected area

permit from the Commission, they shall be required to apply to the Commission within 60 days of notification.

(k) In potentially stressed subbasins, dockets and protected area permit applications for new or expanded ground water withdrawals must include one or more programs to mitigate the adverse impacts of the new or expanded ground water withdrawal. The eligible programs are noted below. If the remainder of the application and the program(s) submitted are acceptable, the withdrawal may be approved by the Commission for an initial three-year

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period. The applicant shall implement the program(s) immediately upon Commission approval. If after the three-year period the program(s) is deemed successful by the Commission, the docket or permit duration may be extended for up to 10 years. The project sponsor shall be required to continue the program(s) for the duration of the docket or permit.

(1) A conjunctive use program that demonstrates the applicant's capability to obtain at least 15 percent of its average annual system usage from a reliable surface water supply. An acceptable program shall include either reservoir storage or an interconnection with a surface water supplier and an agreement or contract to purchase water from the supplier for the duration of the docket or permit.

(2) A water conservation program that exceeds the requirements of § 430.15. For existing water utilities, the program shall reduce average annual per capita water usage by at least five percent. All conservation programs shall include water conservation pricing, either inclining block rates, seasonal rates, or excess-use surcharges, and plumbing fixture rebate or retrofit components. For self-supplied users, the program shall include water efficient technologies such as recycling, reuse, xeriscaping, drip or micro irrigation, or other innovative technology approved by the Commission.

(3) A program to monitor and control ground water infiltration to the receiving sewer system. The program must quantify ground water infiltration to the system and document reductions in infiltration. The program should include such measures as leakage surveys of sewer mains, metering of sewer flows in mains and interceptors, analysis of sewer system flows to quantify infiltration, and remedial measures such as repair of leaks and joints, main lining, and main replacement.

(4) An artificial recharge or spray irrigation program that demonstrates a return of at least 60 percent of the total new or expanded annual withdrawal to the same ground water basin and aquifer system from which it is withdrawn. The program shall not impair ground water quality.

(5) An alternative program approved by the Commission to mitigate the adverse impacts of the new or expanded ground water withdrawal.

(l) The durations of all existing dockets and protected area permits may be extended by the Commission for an additional five years if the docket or permit holder successfully implements in either (k)(1) or (k)(2) of this section. If the docket or permit holder successfully implements both options, the docket or permit may be extended for an additional ten years. The Executive Director shall notify all docket and permit holders potentially affected by this resolution of their right to file an application to determine their eligibility for extension.

(m) It is the policy of the Commission to prevent, to the extent reasonably possible, net annual ground water withdrawals from exceeding the maximum withdrawal limit. An application for a proposed new or expanded ground water withdrawal that would result in net annual ground water withdrawals exceeding the maximum withdrawal limit established in paragraph (i)(3) of this section shall set forth the applicant's proposal for complying with the Commission's policy, with such supporting documentation as may be required by the Executive Director. Notification of the application shall be given to all affected existing water users who may also submit comments or recommendations for consideration by the Commission on the pending application. In taking action upon the application, the Commission shall give consideration to the submissions from the applicant and affected water users. If the Commission determines that it is in the public interest to do so, it may reduce the total of proposed and existing ground water withdrawals within a subbasin to a level at or below the withdrawal limit. Unless otherwise determined by the Commission, docket and permit holders shall share equitably in such reductions.

[46 FR 24, Jan. 2, 1981, as amended at 50 FR 5973, Feb. 13, 1985; 63 FR 6477, Feb. 9, 1998; 64 FR 35566, July 1, 1999]

§ 430.15 Conservation requirements.

The following conservation requirements shall apply to all existing, new