



pennsylvania
DEPARTMENT OF ENVIRONMENTAL
PROTECTION

Safe Drinking Water General Update and Fees Rule

25 Pa. Code Chapter 109
47 Pa.B. 4986 (August 26, 2017)
Environmental Quality Board Regulation #7-521
(Independent Regulatory Review Commission #3177)

Comment and Response Document

List of Commentators

1. Marion Menapace 119 Shady Creek Drive Catawissa, PA 17820 memenapace@gmail.com	8. Alec Henson Citizen 4089 Darius Drive Enola, PA 17025 akhenson88@gmail.com
2. Joan Schwartz 580 Rosemar Dr Morrisville, PA 19067 joanschw8@gmail.com	9. Candace Hoover 533 N Holly St Elizabethtown, PA 17022 candacehoover@gmail.com
3. Dr. and Mrs. Michael Cleary Chester Water Authority 25 Macrae Drive Grove City, PA 16127 cleary2@zoominternet.net	10. Terry Shaffer MAWSA 18 East High Street Manheim, PA 17545 tshaffer@mawsa.org
4. Sharon Furlong 133 E. Bristol Road Feasterville, PA 19053 sfurlong5@verizon.net	11. Ralph W. Stewart Borough of Bellefonte 236 West Lamb Street Bellefonte, PA 16823 rstewart@bellefontepa.gov
5. Deborah Fulham-Winston Member Carlisle Borough Council 53 W. South Street Carlisle, PA 17013 fulham-winston@carlislepa.org	12. Nicole Alger 950 Harnish St Palmyra, PA 17078 magilagudy@aol.com
6. Martin Petroski 15741 Rt. 92 Jackson, PA 18828	13. John Henson 850 Mandy Lane Camp Hill, PA 17011 jnickh500@comcast.net
7. Karen Kroh Private Citizen 850 Mandy Lane Camp Hill, PA 17011 kkroh@comcast.net	14. Wendy Malehorn 62 Clifford Rd Selinsgrove, PA 17870 wickedwen@outlook.com

<p>15. Christopher Crockett Aqua Pennsylvania 762 W. Lancaster Ave. Bryn Mawr, PA 19010 csrockett@aquaamerica.com</p>	<p>22. Erik Ross Natl Assoc. of Water Companies, PA Chapter 200 North 3rd Street Suite 1500 Harrisburg, PA 17101 erik@millirongoodman.com</p>
<p>16. Erik Ross PA Rural Water Association 200 North 3rd Street Suite 1500 Harrisburg, PA 17101 erik@millirongoodman.com</p>	<p>23. Robert Hirst International Bottled Water Association 1700 Diagonal Road Suite 650 Alexandria, VA 22314 bhirst@bottledwater.org</p>
<p>17. Maureen Sterner Jim Thorpe Borough 101 East 10th Street Jim Thorpe, PA 18229 manager@jtborough.org</p>	<p>24. Pat Mandes Lehigh County Authority PO Box 3348, 1053 Spruce St Allentown, PA 18106 patmandes@lehighcountyauthority.org</p>
<p>18. Tina Bennett Watrous Water Association, Inc 2430 Elk Run Road Gaines, PA 16921 watrouswater@gmail.com</p>	<p>25. Kerry Miller Tioga County Planning 118 Main Street Wellsboro, PA 16901 kmiller@tiogacountypa.us</p>
<p>19. John Brenner 322 N 22nd Street Lebanon, PA 17042 westlebtwp@comcast.net</p>	<p>26. Edward Osann Natural Resources Defense Council 1152 15th St NW Washington, DC 20005 eosann@nrdc.org</p>
<p>20. Mary Marshall 30 North Third St. Suite 600 Harrisburg, PA 17101 mmarshall@haponline.org</p>	<p>27. Dennis O'Connor Philadelphia Water Department 1101 Market Street Philadelphia, Pa 19107 dennis.m.oconnor@phila.gov</p>
<p>21. Matthew Walborn Western Berks Water Authority 91 Water Road Sinking Spring, PA 19608 mwalborn@wbwa.org</p>	<p>28. Kevin Shivers National Fed. of Independent Business - PA 225 State Street Suite B Harrisburg, PA 17101 rebecca.oyler@nfib.org</p>

<p>29. Kevin Mathews Nestle Waters North America 900 Long Ridge Road Stamford, CT 06902 Kevin.Mathews@waters.nestle.com</p>	<p>35. Gary Kribbs AEON Geoscience, Inc. 2120 Bellemead Ave. Suite 14-2 Havertown, PA 19083 gkribbs@gmail.com</p>
<p>30. Ryan Schwaner Niagara Bottling 2560 E. Philadelphia St. Ontario, CA 91761 ryan@niagarawater.com</p>	<p>36. Elam M. Herr PA State Association of Township Supervisors 4855 Woodland Drive Enola, PA 17025 eherr@psats.org</p>
<p>31. Karen Crumlish U.S. Environmental Protection Agency U.S. EPA Region 3; Water Protection Division 1650 Arch Street Philadelphia, PA 19103 Crumlish.Karen@epa.gov</p>	<p>37. Charlie Tuttle Triple Divide Watershed Coalition Potter County Planning, Suite 105 1 North Main Street Coudersport, PA 16915</p>
<p>32. Jennifer L. Case PA Municipal Authorities Association 1000 N. Front Street, Suite 401 Wormleysburg, PA 17043 case@municipalauthorities.org</p>	<p>38. Lonnie Batdorf Carrolltown Borough Municipal Authority P.O. Box 307 140 East Carroll Street Carrolltown, PA 15722 lbatdorf@carrolltown.pa.us</p>
<p>33. Cindy Bachman Municipal Authority Borough of Catawissa 19 Schoolhouse Road Catawissa, PA 17820 catwat@ptd.net</p>	<p>39. Charlie Carrico Conemaugh Township Municipal Authority P.O. Box 429 113 South Main Street Davidsville, PA 15928 tweyantctma@atlanticbb.net</p>
<p>34. James Land Tower Springs LLC 1390 Le Boutillier Rd Malvern, PA 19355 jamesjlandjr@comcast.net</p>	<p>40. David Sumner Independent Regulatory Review Commission 333 Market Street, 14th Floor Harrisburg, PA 17101 irrc@irrc.state.pa.us</p>

INTRODUCTION

The Environmental Quality Board (Board) adopted the proposed safe drinking water general update and fees rule at its May 17, 2017 meeting. On August 9, 2017, the Department of Environmental Protection (DEP) submitted a copy of the proposed rulemaking to the Independent Regulatory Review Commission (IRRC) and to the Chairpersons of the Senate and House Environmental Resources and Energy Committees for review and comment in accordance with Section 5(a) of the Regulatory Review Act (71 P.S. § 745.5(a)). The proposed rulemaking was published in the *Pennsylvania Bulletin* on August 26, 2017 (47 Pa.B. 4986) with provision for a 30-day public comment period that closed on September 25, 2017. Comments were received from 40 commentators, including IRRC. All comments can be viewed in their entirety on the Department of Environmental Protection's (Department or DEP) eComment page for this rulemaking:

<http://www.ahs.dep.pa.gov/eComment/ViewComments.aspx?enc=8YWleHIdijzUAfiG53EkjZsi%2bU7zETpGUQj8Jkj%2bS%2f0%3d>

COMMENTS AND RESPONSES

GENERAL COMMENTS:

- 1. Comment:** Do all you can to ensure safe drinking water - BUT meanwhile fracking goes on. We need a moratorium now and a ban when the legislature is finally convinced by health providers and ecologists that fracking will ruin PA. The proposed Atlantic Sunrise Pipeline will run directly above my well. Can you assure me that my water will be safe? Thank you for taking your job seriously!!!
(1)

Response: This rulemaking is specific to the Safe Drinking Water (SDW) Program, which provides regulatory oversight for Pennsylvania's public water systems (PWS). Private wells are not regulated by the Commonwealth of Pennsylvania. As such, each homeowner is responsible for the proper construction, maintenance, and monitoring of private wells. For more information about general steps you can take to protect your water supply, please refer to the Department's website for private well owners: <http://www.dep.pa.gov/citizens/my-water/privatewells/pages/default.aspx>.

- 2. Comment:** I wholeheartedly agree with the PA Dept. of Environmental Protection's plans to hire more inspectors to shore up the drinking water system inspection program. We are far short of the national average. Safe water is priority. Please follow through! Lives depend on it. (2)

Response: The Department acknowledges the comment.

- 3. Comment:** Safe drinking water is a high priority. We support additional staff and the fees to pay for it. (3)

Response: The Department acknowledges the comment.

- 4. Comment:** Protection of water resources is vital. Protection of watersheds and aquifers and transport systems and reservoirs is vital. DEP needs help. It needs inspectors. Now you are asking

for all of us to help by raising fees. I guess there is no choice, but really, isn't this what I pay taxes for? Aren't those taxes for protection of our lives and the Natural world that is Pennsylvania? I guess these fees have to happen because underfunding isn't going to stop. So, raise the fees, but make it part of this law that those fees are 100% guaranteed to be funneled into the DEP and its work, and not allowed to get siphoned off into the General Fund to be used for other purposes. (4)

Response: Under Section 14 of the Pennsylvania Safe Drinking Water Act (SDWA), 35 P.S. § 721.14, and § 109.1411 (relating to disposition of funds) of this final-form rulemaking, the fees will be deposited into a special restricted revenue account in the General Fund known as the Safe Drinking Water Account administered by the Department for use in protecting the public from the hazards of unsafe drinking water. The funds may only be used by the Department and for the purposes as are authorized in the SDWA. Under § 109.1413 (relating to evaluation of fees) of this final-form rulemaking, every three years, the Department will evaluate the fees and recommend regulatory changes to the Board to address any disparity between program income and the Department's costs. The evaluation will include an assessment of program income, expenses, program complement and workload. This ongoing assessment will ensure proper accountability for the fees. Please also see the response provided to Comment #14.

5. **Comment:** Providing clean drinking water is a primary responsibility of any government since it has a direct effect on the health and well-being of all residents. If the Commonwealth cannot inspect all sources of drinking water for residents, it is not fulfilling its responsibilities. Having sufficient numbers of trained inspectors is necessary and this lack should be addressed as quickly as possible, and funding for this department should never fall below the amount needed to provide this service. (5)

Response: The Department acknowledges the comment.

6. **Comment:** I read your article on a charge for public water users. It is important to have funds for projects – it's time for the public to pay for the cost of water production by the private individual. It's time for a 1 cent to 20 cents per gallon assessment on all public water systems so money is available for projects – this water is sold not given away. It's time for public water systems to bear the cost of clean water. We need sources of money to do these improvements – government should not have to carry it – those who get the benefit should pay for it. (6)

Response: The Department acknowledges the comment.

7. **Comment:** Thank you for the opportunity to submit public comments on the proposed amendments to 25 Pa. Code Chapter 109 (relating to Safe Drinking Water: General Update and Fees). I fully support all of the proposed amendments including the fee increase to support the cost of employing additional water safety inspectors for the Commonwealth. I have written on multiple occasions to my state representative and senator asking them to increase the state budget for the DEP including its water quality inspection and enforcement services, but in light of the lack of funding from the legislature, I fully support the proposed regulation. I support all sections of the proposed regulation. Thank you for your work to protect the quality of our drinking water on behalf of all Pennsylvania citizens. (7)

Response: The Department acknowledges the comment.

- 8. Comment:** I support the proposed regulations at 47 Pa.B 4986 regarding the Safe Drinking Water; General Update and Fees regulations. I support increasing the fee to support an increase in the number of water quality inspectors. The safety of Pennsylvania's environment, particularly our air, soil and water is of utmost importance and cannot be deregulated, ignored or abandoned. Please assure that the DEP's regulatory inspection, investigation and enforcement services are restored to at least the funding and staffing levels in FY 2008-09, plus an inflation factor. The water quality safety inspector ratios must be funded to at least a staffing to public water system ratio of 1:60. Please assure an increase in regulatory enforcement staff as well. I support all of the proposed regulations. Thank you for protecting the health and safety of all Pennsylvanians. (8)

Response: The Department acknowledges the comment.

- 9. Comment:** I applaud the DEP for the proposed rulemaking in support of increasing the number of water quality inspectors in PA. The quality and safety of our drinking supply is paramount. I support the proposal to increase fees to pay for the inspectors. The fees should cover the cost to not only inspect Pennsylvania's water facilities, but also to aggressively enforce the DEP regulations. (12)

Response: The Department acknowledges the comment.

- 10. Comment:** I am writing in support of the proposed rulemaking titled Safe Drinking Water General Update and Fees. I support all of the proposed regulations, and in particular the increase in fees to fund additional water safety inspectors in PA. Pennsylvania's ratio of water safety inspectors to water facilities falls well below the ratios of our neighboring states. Protecting our water sources through rigorous and frequent regulatory inspections is fundamental to promote the health and safety of all citizens. Thank you for proposing this fee increase to support the protection of all Pennsylvanians. (13)

Response: The Department acknowledges the comment.

SAFE DRINKING WATER FEES:

- 11. Comment: Cut expenses and improve efficiencies:** The protection of our drinking water is one of the most important responsibilities of our government, but so is proper budgeting. Balancing the budget, cutting expenses, and spending wisely would allow DEP to afford competent individuals to assure safety without causing additional financial hardship to water suppliers. The Department should continue efforts to improve efficiencies in regulatory program delivery including better tools for electronic permit submissions and reporting, improved training, and streamlining processes to focus on those issues most important to protecting public health. (9, 11, 23, 28, 29, 34)

Response: The Department has streamlined its operations in nearly all areas. In response to many years of staffing and resource shortfalls, the program has been reduced to only those activities that

are mandated by State and Federal laws, regulations and primacy requirements. Despite these efforts, the Department's appropriations for the Safe Drinking Water Program from the General Fund have decreased in recent years, resulting in an overall decrease in staffing of 25% since 2009. Under § 109.1413 of the final-form rulemaking, at least every three years, the Department will evaluate the adequacy of fees and recommend regulatory changes to address any disparity between program income and the Department's costs. The three-year review will include an assessment of program income, expenses, program complement and workload. Any future increases in funding, improved efficiencies or other cost saving measures will be evaluated as part of the three-year review.

12. Comment: Unfair burden on small systems: This proposed revision is not fair to water suppliers who service smaller communities and struggle to keep water rates as reasonable as possible for ratepayers while trying to maintain and improve water quality. The proposed fees will disproportionately affect lower income citizens and communities. The new fees are an enormous cost to bear, especially for small businesses. (9, 10, 11, 18, 25, 28, 33, 37)

Response: The Department acknowledges the concern for small water systems and businesses, and lower income communities. The Department offers many technical assistance programs that are targeted towards small systems and disadvantaged communities. The Department's Capability Enhancement (CE) program helps small drinking water systems operate more effectively and efficiently by improving the technical, managerial, and financial capability of the water system. The CE program provides a mechanism to address the needs of small drinking water systems by evaluating a system's current needs, and then developing an assistance plan to meet those needs. The CE program provides facilitation among all of the parties needed to implement the assistance plan. CE program staff deliver this free on-site assistance through facilitators in conjunction with wage payroll peer water operators employed by the Department. These assistance providers are practicing operators and administrators in local water systems. This program is designed to:

- Enhance the capabilities of system operators to operate their systems in the most professional, effective and efficient manner.
- Enhance the financial and managerial expertise of system owners and operators.
- Empower PWS personnel by providing them with knowledge or access to information that allows them to address any factor that limits the PWS's capability to produce quality and quantity of water in a reliable and efficient manner.
- Ensure that this Commonwealth's water systems are sustainable and are able to meet current and future drinking water demand while protecting public health and the environment and ensuring continued economic growth and development.

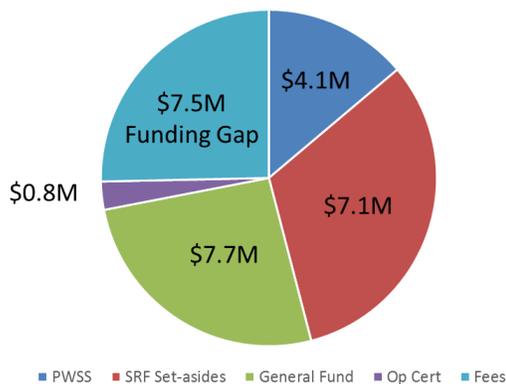
For more information about the Department's CE program, please visit DEP's website at: <http://www.dep.pa.gov/Business/Water/BureauSafeDrinkingWater/CapabilityEnhancement/Pages/default.aspx>

Staff reductions have led to a steady decline in the Department’s ability to provide services necessary to ensure compliance with SDWA requirements. Failure to provide these services may result in an increased risk to public health. Under the SDWA, the Board has the authority and is directed to establish fees for services that bear a reasonable relationship to the actual cost of providing services. The Board must also consider the impacts of the proposed fees on small businesses as part of the regulatory analysis required under the Regulatory Review Act (RRA). The Department considered several alternatives for assessing fees. In the end, the proposed fees were retained in the final-form rulemaking because the Department believes the fees will provide the funding necessary to properly administer the SDWA and provide the wide variety of necessary services in a manner that minimizes the adverse impact on water systems with fewer customers to bear the cost. The fees for small community water systems (serving 3,300 or fewer people) will range from \$250 to \$4,000, and will result in per person costs of \$1.00 to \$10.00 per year. The fees for small noncommunity water systems will range from \$50 to \$750, and will result in per person costs of \$0.33 to \$31.36 per year. These fees bear a reasonable relationship to the cost of services provided by the Department.

13. Comment: Alternate sources of funding: The water industry understands the effort to ensure clean drinking water, and acknowledges the need for a certain funding level to do the job. However, alternate means should be explored and perhaps implemented before creating a new fee for water systems and their customers. Core functions of the Department, like those involving the SDW Program, should be covered by the General Fund. The Department should request the additional funding from the legislature. (10, 11, 14, 16, 17, 19, 21, 22, 23, 24, 25, 28, 29, 32, 33, 34, 37, 38)

Response: The current funding available to administer the SDW Program from State and Federal sources is \$19.7 million. The fees are expected to generate approximately \$7.5 million, which will allow the SDW Program to restore staffing levels and reverse the decline in services that has occurred since 2009. The fees will provide nearly 50% of the Commonwealth’s share of funding for the SDW Program. The remaining portion of the Commonwealth’s share (\$7.7 million) is expected to be provided through annual General Fund appropriations.

SDW Program Costs and Funding



Federal sources currently provide approximately \$11.2 million to fund the Pennsylvania SDW Program, including:

- Public Water System Supervision (PWSS) grant (\$4.1 million) – used for personnel costs; lab costs; staff training
- State Revolving Fund (SRF) Set-asides (\$7.1 million) grant – used for personnel costs; capability enhancement programs (training, technical assistance, optimization programs); source water assessment and protection; PADWIS; assistance grants/contracts

The Commonwealth currently provides approximately \$8.5 million to fund the program through the following sources:

- General Fund appropriations (~\$7.7 million) – used for personnel costs
- Operator Certification fees (\$0.8 million) – used for Operator Certification Program implementation costs

With the addition of the \$7.5 million expected to be generated from this rulemaking, the funds available for the SDW Program should total \$27.2 million.

The Department has requested and will continue to request additional funding from the General Fund during the annual budget process to support the SDW Program. The decrease in funding has caused the need for the annual fees. If additional funding becomes available in the future, the Department will evaluate the continuing need for and/or level of annual fees.

- 14. Comment: Oversight of funds:** Currently, the Governor and the state legislative branch have oversight of allocated funds. Additionally, elected officials through the budget process can institute the will of the people. A separate funding source at the direction of a program within a department would separate the activities of that program from the elected officials put in those positions by Pennsylvania's citizens to manage them. The proposed fees are excessive and appear to be a means for the DEP to bring in funds in order to assist in the operation of the entire Department, not just for the specific task involved. (11, 17)

Response: Please see the response provided to Comment #4. In addition to the ongoing three-year review of fees, there are several additional levels of accountability within the SDW Program. At the Federal level, the Department is accountable to EPA to ensure that the SDW Program meets all primacy and grant conditions and is at least as stringent as the Federal program. The Department provides several updates to EPA throughout the year, including quarterly enforcement updates, semi-annual updates on grant commitments and program performance, and annual and triennial reports on program implementation. The Department's performance is also tracked by the Governor's Office and the Legislature through the annual budget process and through the reporting and tracking of annual performance measures. The Department is also accountable to the citizens of this Commonwealth through advisory committees, public meetings and publicly-accessible web applications. Currently, the Department provides on its website all compliance monitoring results, violations and enforcement actions, and inspection results for all 8,521 PWSs in the Commonwealth.

Here is the link to the Department's Drinking Water Reporting System:

<http://www.drinkingwater.state.pa.us/dwrs/HTM/Welcome.html> If the public has any questions or concerns about their water supply, there are various means of contacting the Department. Here is the link with additional contact information:

<http://www.dep.pa.gov/About/ReportanIncident/Pages/default.aspx>. The fees in this final-form rulemaking will provide the Department with funding necessary to properly administer the SDWA while bearing a reasonable relationship to the actual cost of services provided by the Department and while achieving a reasonable cost to the customers served.

15. Comment: Fees may impact infrastructure projects: Increased system costs (fees) are not and cannot always be passed onto the customer. Some systems may pay the regulatory fees through existing rate structures, which will strain existing resources. Systems may need to reevaluate which infrastructure maintenance, replacement and upgrade projects can be completed. The proposed fees may lead to deferred maintenance. (14, 19, 33, 39)

Response: The Department encourages all systems to consider full-cost pricing and the development of asset management plans to ensure resiliency and the continuous provision of safe drinking water. Safe drinking water is vital to maintaining healthy and sustainable communities. Proper investment in PWS infrastructure and operations helps ensure a continuous supply of safe drinking water, enables communities to plan and build future capacity for economic growth, and ensures their long-term sustainability. There are various tools available for all system types and sizes including templates and training materials from the Pennsylvania Rural Water Association (PRWA), American Water Works Association (AWWA) and EPA. Here are several links to various EPA resources.

- Link to EPA's webpage on Building the Capacity of Drinking Water Systems:
<https://www.epa.gov/dwcapacity>
- Link to EPA's webpage on Sustainable Water Infrastructure:
<https://www.epa.gov/sustainable-water-infrastructure>

The Department also provides technical assistance and training to systems that are interested in improving their technical, managerial and financial capabilities. More information is available on the Department's Capability Enhancement webpage:

<http://www.dep.pa.gov/Business/Water/BureauSafeDrinkingWater/CapabilityEnhancement/Pages/default.aspx>

16. Comment: Fees should bear a reasonable relationship to the cost of services: The SDWA requires fees to bear a reasonable relationship to the actual cost of services provided. The Department should provide additional explanation or analysis to account for this, otherwise the fees being proposed are arbitrary, capricious, and not commensurate with the services provided, violating federal law. The IRRC recommended that the Board reevaluate the basis of the fees in the final-form rulemaking. (15, 16, 17, 21, 22, 23, 24, 27, 29, 32, 40)

Response: Section E. of the preamble of the proposed rulemaking, 47 Pa.B. pages 5005-5011, contained extensive information and data regarding how the Department analyzed the cost of providing services to administer the SDWA and its regulations. The cost of some services can be estimated, while the cost of other services depends on the specific circumstances and will vary widely.

The table below summarizes the Department’s costs of providing those services that can be estimated for CWSs serving various populations. The hourly rate was provided by the Department’s fiscal office and includes salary, benefits, and in-direct costs (supplies, etc.).

DEP Cost of Services That Can Be Estimated				
Activity	Hours/Activity/Year for CWSs Serving the Following Population			
	<750	750-5,000	5,000-50,000	>50,000
Conduct sanitary surveys	7.5	10	25	37.5
Conduct other inspections	2.5	3.3	5	10
Determine compliance	12	12	15	15
Maintain PADWIS/eFACTS	7.5	7.5	10	10
Review plans/reports	7.5	10	15	15
Provide technical assistance/ training	7.5	7.5	10	10
Total Hours	44.5	50.3	80	97.5
@ \$49/hr =	\$2,180	\$2,465	\$3,920	\$4,778

Examples of other services and costs that involve variable circumstances and preclude a single estimate for the services include the following:

1. **Sanitary surveys that take longer to conduct due to the complexity or size of the water system.** Examples of actual hours expended and costs to complete more complicated sanitary surveys at large water systems (i.e., those serving populations > 50,000) are as follows:
 - a. System A (population = 57,000): 40.5 hours at a cost of \$1,984
 - b. System B (population = 66,500): 40 hours at a cost of \$1,960
 - c. System C (population = 87,000): 49 hours at a cost of \$2,401
 - d. System D (population = 105,000): 60 hours at a cost of \$2,940
 - e. System E (population = 120,000): 60 hours at a cost of \$2,940
 - f. System F (population = 747,500): 103 hours at a cost of \$5,047
 - g. System G (population = 1.6 million): 124 hours at a cost of \$6,076

2. **Additional follow-up actions taken by the Department in response to a violation.** When a drinking water standard is exceeded, Department staff are responsible for consulting with and providing direction to the water system; ensuring that public notice is complete, timely and repeated as needed; tracking, reviewing and approving follow-up and corrective actions (such as collecting confirmation or additional samples, repairing/replacing/installing water treatment, or taking contaminated sources off line); and determining when the system has returned to compliance.

For example, in 2016, monitoring results for a large Pennsylvania water system indicated the 90th percentile lead value exceeded the action level established in the Lead and Copper Rule. This triggered lead service line replacement actions. Department staff spent at least 116.5 hours working to address this important issue. Services provided by the Department to achieve compliance included meetings, file reviews, drafting compliance documents, follow-up action reviews and letters. The approximate cost for these services was \$5,708.

3. **Additional follow-up, corrective and emergency actions taken by the Department in response to a water supply emergency.** Water supply emergencies occur each year and require substantial resources from the Department. The following are examples of emergencies and associated costs for services provided by the Department:
 - a. In the Spring of 2011, unexpected damage to a very large water main resulted in a major leak, loss of significant water quantity and pressure. The result was closure of multiple businesses and government agencies in a large city within the Commonwealth for three days due to lack of a potable water supply. This emergency spanned approximately five consecutive days with approximately 66,500 customers impacted. The Department provided a variety of onsite support services at the site of the break, and at the drinking water filtration plant. Department costs for services provided during this event equates to approximately 160 hours of staff time and a cost of \$7,840.
 - b. During the Summer of 2012, significant construction delays in completing critical renovations and upgrades to a water filter plant threatened the ability to provide an adequate quantity of drinking water to approximately 210,000 customers. Department staff provided a variety of specialized engineering and operational support services over the course of several weeks. Total cost estimate of Department services provided during this event includes 600 hours of staff time costing approximately \$29,400.
 - c. In the Summer of 2015, runoff from a large fire at an industrial facility severely contaminated the intakes for two public water systems thereby rendering their normal source of surface water untreatable for almost three months. Together, the two public water suppliers impacted provided drinking water to approximately 43,000 customers. Several Department staff were involved in providing a wide variety of emergency support services, over the course of several months, to the water suppliers affected. Department cost estimates for this event include 515 staff hours (\$25,235) and emergency sampling costs (\$17,818). The total cost of Department services provided was approximately \$43,053.
 - d. In the winter of 2016, an equipment failure resulted in flooding at a surface water filtration plant which provides water to approximately 20,000 customers. This

immobilized treatment and pumping capabilities for six consecutive days. The filter plant did not resume normal operations for approximately two weeks. Without combined efforts by the water system, the Department and neighboring water systems, 20,000 customers could have endured consecutive days without an adequate supply of water. Department services included coordination with neighboring water systems to identify alternate sources of water, emergency permit considerations, site assessments, engineering and operational support. Additionally, the Department loaned the public water system critical water quality monitoring equipment (valued at approximately \$24,000) for approximately 10 weeks to help verify that safe water was consistently provided. The total cost estimate of Department services provided during this event also includes 300 hours of staff time, which cost approximately \$14,700.

4. **The cost of samples collected by the Department during inspections and filter plant performance evaluations, in response to complaint investigations, and to assess water quality and protect public health during water supply emergencies.** These sampling costs range from \$30 for inorganic analyses to \$400 for pesticides to \$1,200 for analysis of *Cryptosporidium* and *Giardia* to \$2,968 for a complete emergency sampling suite. Total Department lab costs average approximately \$680,000 per year.
5. **The costs associated with additional training when new regulations are promulgated.** One example is the numerous training sessions that were developed and delivered in 2015 - 2016 to roll-out implementation of the Revised Total Coliform Rule (RTCR) adopted to conform to Federal requirements. This training included eight different training courses, workshops and webinars that were presented 160 times across the Commonwealth, for a total of 482 hours of training. The cost to deliver 482 hours of training was \$23,618.
6. **The costs associated with specific follow-up actions established in new regulations.** The federal RTCR became effective on April 1, 2016, and the Department and EPA shared enforcement of the federal rule until Pennsylvania's regulations were published as final (which occurred on Sept. 24, 2016). As part of the Department's enforcement responsibilities during this interim period, staff conducted Level 2 assessments at public water systems. A Level 2 assessment is triggered when a public water supply has an *E. coli* MCL violation or when two total coliform triggers occur during a 12-month period. During this interim period, Department staff completed 94 Level 2 Assessments at more than 85 regulated public water systems. These assessments identified over 400 defects that have already been, or are being, corrected thereby improving public health protection. Estimated costs for services provided by the Department were approximately \$3,000 per assessment for a total cost of \$282,000.

The additional costs described in items 1 – 4 above are more evident in medium and large water systems due to their size, age, complexity, and number of customers at risk. Because these additional costs are variable, it is not possible to establish an average cost for these services. However, these additional costs were considered when determining the annual fees for the medium and large water systems. Thus, the Department developed the annual fees, to bear a reasonable relationship to the actual costs of all the services provided by the Department while achieving a reasonable cost to the 11.3 million customers served.

17. Comment: Unfair burden on companies that own multiple PWSs: The proposed fees create an unfair and unequal burden on water suppliers owning and operating multiple water systems. For example, the City of Philadelphia (PWD) operates one system serving 1.4 million people and would be charged approximately \$40,000 under the proposed fee structure while Aqua PA serving the same number of customers would be required to pay \$400,000 or ten times the amount for a similar amount of customers. Pennsylvania American Water has 66 Public Water Supply ID numbers and estimates that they would pay an increase in annual fees of approximately \$830,000. Likewise, Suez has 15 PWS ID numbers, with a population of 150,000, and would experience an increase of \$124,000 or an increase in magnitude of 26 times the current rate. Furthermore, this rate would be over three times the rate imposed on a city serving a population of 1.5 million. Therefore, the Department should consider a cap on the fees for companies that own and operate more than 10 PWSs in PA to no more than \$150,000 annually. (15, 16, 22)

Response: Based on the examples provided in the comments, the workload or level of services for each “company” is as follows:

PWD – PWD owns/operates 1 PWS, serves a total population of ~ 1.4 million people, and would be required to pay an annual fee of \$40,000. Per person costs would be ~ \$0.03 per year.

Aqua PA – Aqua owns/operates 110 PWSs, serves a total population of ~ 1.4 million people, and would be required to pay total annual fees of \$400,000. Per person costs would be ~ \$2.80 per year.

PA American – PA American owns/operates 66 PWSs, serves a total population of more than 700,000, and would be required to pay total annual fees of \$830,000. Per person costs would be ~ \$1.18 per year.

Suez – Suez owns/operates 15 PWSs, serves a total population of 150,000, and would be required to pay total annual fees of \$124,000. Per person costs would be ~ \$0.83 per year.

Comparison of Workload or Level of Services				
	PWD	Aqua PA	PA American	Suez
# PWSs	1	110	66	15
# required sanitary surveys	1	110	66	15
# surface water filtration plants (requiring routine data review and filter plant performance evaluations)	3	12	37	5
# EPs (requiring review of monitoring results on a routine basis)	3	296	198	44
# sets of distribution system monitoring results to review for LCR, RTCR, DBPR	1	110	66	15
# inventories and compliance/enforcement records to maintain in PADWIS & eFACTS	1	110	66	15
# plans to review (ERP, O&M, etc.)	1	110	66	15

# regional sanitarians and engineers assigned to these systems	1 each	Multiple staff in 5/6 regions	Multiple staff in all 6 regions	Multiple staff in 4/6 regions
--	--------	-------------------------------	---------------------------------	-------------------------------

Even though these companies consider themselves as one company, they in fact represent multiple individual water systems, each with its own workload. And when the cumulative workload is considered, the Department believes that the fees for these companies bear a reasonable relationship to the level of services provided to the PWSs owned by the companies. The resulting average per person costs are in-line with those of other water systems. Finally, if the Department were to consider a cap on fees for companies that own multiple water systems, it would result in the companies underpaying their fair share of costs for Department services.

18. Comment: Financial burden on PUC-regulated systems: The fees create a financial burden on PUC-regulated facilities. These systems will need to seek costly rate increases, and will need to absorb the costs until the PUC approves the recovery of these costs. (15, 16, 22)

Response: While it is true that the new annual fees will require an initial rate increase in order to recover the costs, the frequency of future potential rate increases (due to fees) is not expected to be more than once every five years. This anticipated frequency takes into consideration the three-year review cycle, and the two-year regulatory process. A potential rate increase cycle of not more than once every five years is in-line with typical PUC rate cases.

19. Comment: Permit fees: Permit fees should be based on the scope of work (type of project, scope of project, project size and complexity) and not on the population served. Permit fees should be independent of system size. (16, 21, 22, 23, 29, 32)

Response: The Department disagrees that permit fees should be independent of system size. Nearly all aspects of the Commonwealth and Federal drinking water program are governed by system size (population). System population is used to determine monitoring requirements (both the number of samples and the frequency of monitoring), implementation due dates (many rules phase-in effective dates by system size), and treatment technique requirements (some treatment techniques only apply to certain system sizes), among other things. System population is used as a surrogate for system complexity – medium and large systems are generally more complex than small systems, with more overall facilities (sources, EPs, interconnections, and storage tanks, among others) and types of treatment technologies. Medium and large systems often face additional challenges with maintaining simultaneous compliance, which factor heavily into permit reviews. For these reasons, it is appropriate to use system population to determine the various permit fee categories and Department costs.

20. Comment: Minor permit amendments: Minor permits should not require extensive DEP review so the fees should be substantially less. (16, 21, 22)

Response: The Department agrees that review times for minor amendments are less than the review times for new permits or major amendments. In recognizing this, the Department set the fees for minor amendments at one-third to one-half the fees of major amendments.

21. Comment: General permits: The water industry supports the use of general permits and a fee not to exceed \$500. (16)

Response: The Department acknowledges the comment.

22. Comment: BVRB fees: Bottled, vended, retail and bulk water hauler (BVRB) fees do not seem equitable in relationship to the cost of the product. BVRB fees should be based on gallons produced. The IRRC recommended that the Board include consideration of the recommendation from TAC regarding the suggestion to use gallons produced as the basis for determining annual fees. (16, 22, 23, 29, 32, 40)

Response: The Department disagrees. BVRB fees were assessed using the same criteria as the more traditional PWSs. The fees are based on a workload analysis and an estimate of costs associated with Department services. In addition, as stated in the preamble to the proposed rulemaking at 47 Pa.B. page 5009, the Department does not currently have complete data on gallons produced. Moving forward, the Department will consider revisions to reporting forms so that this data may be available in the future. However, even if this data were available, the Department believes that establishing fees based solely on gallons produced would present additional challenges. Not all water systems are metered or have meters installed in the correct locations to track gallons produced. Some water systems produce and sell raw water for non-potable purposes, such as in the oil and gas industry, and it is unclear whether those volumes would be included. Other water systems have high levels of unaccounted for water due to unmetered connections, fire protection, and waterline leaks and breaks. Finally, gallons produced may not be commensurate with the complexity of water system facilities and types of treatment provided. For these reasons, the use of gallons produced to assess fees would not bear a reasonable relationship to the cost of services provided by the Department.

23. Comment: Effective date of fees: Fees should be deferred and phased-in in 2019 to allow water systems to include the new fees in budgeting. (22)

Response: The Department agrees that water system boards and authorities should be given sufficient time to include the new annual fees in the budgeting process. The Department has clarified in the final-form rulemaking that the payment schedule will begin with the first full quarter of calendar year 2019 (Jan – Mar).

24. Comment: The proposed fees require more discussion, and complete analysis of all factors has not been communicated to all stakeholders. (27)

Response: The Department disagrees that more analysis and discussion are needed. Extensive analysis has been completed, using all available data and resources. The fees were thoroughly discussed with the Department's Small Water Systems Technical Assistance Center Advisory Board (TAC) and other stakeholders through several advisory committee meetings and a public webinar. Advisory committee meetings are announced publicly and are open to the public. Due to the webinar and a series of letters from EPA and the resulting news articles regarding the Department's

limited resources and resulting poor performance, information about the proposed rulemaking was broadcast statewide. The additional focus from the news media resulted in several comments being submitted from the general public, which rarely happens with proposed drinking water regulations. Please also see the response provided to Comment #16 for more information about the factors and data that were used to establish the fees.

25. Comment: The current state of the Program, which is the cumulative result of numerous decisions made over many years, is cause for serious concern regarding protection of the public health, safety and welfare. The Department finds itself experiencing difficulty in meeting the directives of the SDWA to the point that it needs \$7.5 million in additional revenues from water systems and suppliers to ensure compliance. The SDWA not only envisions, but directs the Board to establish fees to cover services. However, the Board states in the Preamble that permit fees have not been increased since originally adopted in 1984. As to the cost of other services, the Board does not explain whether any consideration was given to implementing or increasing fees over the years in order to avoid reaching this current state. Given that the statutory directive to establish fees for services has been in place since 1984, we question the Department's decision to cut services rather than gradually increase fees as appropriations from the General Fund decreased in recent years. We ask the Board to explain why the statutory directive to establish fees to cover services was not used to sustain the Program. We also ask the Board to explain how the Program's budget will be monitored in the future to ensure that revenues are in place to meet SDWA requirements before a budget shortfall exposes the public to the risk of unsafe drinking water. (40)

Response: The Department attempted to increase permit fees and establish new annual fees in 2010 when program resources and performance first began to decline. The draft proposed rulemaking (Safe Drinking Water Program Fees) was presented to TAC on March 9, 2010, with further discussion on June 18, 2010. The proposed rulemaking was presented to the Board at its November 16, 2010 meeting, where it was approved to move forward as a proposed rulemaking. However, due to circumstances beyond the control of the Department at that time, the rulemaking was prohibited from moving forward beyond that point in the regulatory review process.

Regarding the Department's protocols that will ensure the proper monitoring of the SDW Program's performance and budget in the future, please see the responses provided to Comments #4 and #14.

GENERAL UPDATES:

26. Comment: At a time when program staffing and resources are limited, it would be prudent to limit the requirements of the program to the minimum federal program elements, thereby reducing the program's responsibilities surrounding the permitting, verification, monitoring, and enforcement of these specific provisions. The IRRC asked the Board to explain the reasonableness of expanding regulatory requirements which would result in increased demands on the Department's staff and funding during a time when both staff and funding are decreasing. (28, 40)

Response: The additional state provisions included in this final-form rulemaking are designed to help reduce the occurrence of violations, treatment breakdowns, and water supply emergencies;

thereby improving system resiliency and reliability, and reducing the need for staff resources to respond to these emergency situations. The provisions were developed with DEP staff input and are intended to address the highest priority issues of concern. Establishing proper safeguards under specific regulatory requirements that clearly outline violation prevention expectations for the regulated community is a critical means to improve public health protection. Prevention of violations and/or water supply emergencies is always important to the SDW Program; even more so when staff resources are limited. Please note, as well, that the Department amended several provisions in response to TAC and public comments. Several provisions that are more stringent were either modified or deleted, including the turbidity requirements under §§ 109.202 (relating to state MCLs, MRDLs or treatment technique requirements) and 109.701 (relating to reporting and recordkeeping), the monitoring and reporting requirements for “back-up” sources and entry points under §§ 109.301, 109.303, 109.703 and 109.717, and the system service and auxiliary power requirements under § 109.708.

27. Comment: We question whether the enhancements above the federal requirements is to justify the new fee schedule. (36)

Response: The more stringent provisions are not intended to justify the new fee schedule. It is important to note that the majority of the provisions were originally proposed in an earlier regulatory package in 2014, which pre-dates the proposed fee rulemaking.

28. Comment: Source water assessments and sanitary surveys: Section 109.705 (iii) appears to require water suppliers to update their source water assessments annually for every source as part of their sanitary survey. This would create an undue burden and water suppliers should be given the opportunity to use alternative methods to accomplish this instead of the method dictated in the proposed language. The water supplier should be allowed to update their source water assessments for surface water systems no less than every 3 to 5 years and potentially longer for wellhead areas. Water suppliers should be given the chance to tailor their needs for an assessment update and submit the schedule to PADEP. (15)

Response: Under the existing requirements under § 109.705 (relating to system evaluations and assessments), water suppliers have always been required to conduct annual sanitary surveys, which include a review of all sources and protection areas. For an existing source water protection area (i.e., the contributing area has been delineated), a source water assessment is essentially a sanitary survey. Also, systems with Department-approved local source water protection programs must review their source water protection plan annually and update the elements as needed. As the source water assessment is the basic framework of, and is incorporated into, a local source water protection plan, these updates should already be occurring and can be captured on the annual update form in many instances. If a water system would need to completely overhaul an assessment or protection plan and complicating factors were involved, the Department could consider an alternate timeframe.

29. Comment: In the proposed language PADEP does not define “actual or probable sources of contamination”. PADEP should use language in Chapter 109 that is the same language and definitions used in Source Water Assessments and its Source Water Protection Program and Planning documents since 1996. (15)

Response: The phrase “actual or probable sources of contamination” was used in an earlier draft of the proposed regulatory revisions. The proposed rulemaking, which was adopted by the Board on May 17, 2017 and published for public comment on August 26, 2017, uses the phrase “actual or potential sources of contamination” in § 109.705, which is consistent with the language used in the Department’s March 24, 2000 Source Water Assessment and Protection Program final technical guidance document.

30. Comment: Pre-drilling plan: The requirements in §109.503(a)(1)(A) for a “pre-drilling plan” establish a new step in the process, and should be clarified and adjusted to avoid duplication with similar aquifer test plan requirements administered by other agencies. Section 109.503(a)(1) also calls for submitting with the plan the preliminary results of source water assessments, a key part of which involves water quality samples – and such source samples can’t be taken without some type of test well. The Department should be encouraging, not limiting, the installation of test wells and performance of hydrologic evaluations that gather better background geologic and water quality data as a predicate to production well design and aquifer testing. The Department should reconsider the concept of mandating “approval” of an aquifer test plan before proceeding with a test. At the very least, we would recommend that §109.503(a)(1) be modified to make clear that this is not a “pre-drilling plan” but rather a plan that would precede conduct of a formal aquifer test. Why is it necessary to establish a new approval requirement under which all public water systems must stop and wait for agency staff to review aquifer test plans before proceeding with the tests required for a full construction permit application. The IRRC asked the Board to clarify the requirements of §109.503(a)(1) (relating to PWS construction permits) in the final-form regulation. The IRRC also asked the Board to explain the reasonableness of the pre-drilling plan requirement, “[c]onsidering the Department’s stated difficulty in addressing the minimum requirements for SDWA primacy noted in the Preamble [to the proposed rulemaking].” (23, 29, 40)

Response: Predrilling plans and source approvals are coordinated with other agencies, such as the Susquehanna River Basin Commission (SRBC), Delaware River Basin Commission (DRBC), and others. The individual components of a pre-drilling plan and subsequent approvals of potential production well site locations have been required as part of the permitting process since at least 1997. The individual components are currently listed in § 109.503(a)(1)(iii) of the existing regulations and are required to be submitted to the Department as part of a construction permit application. However, with these revisions, the predrilling plan will now be required to be submitted to the Department for review and approval prior to drilling the well. No change to this subsection has been made in the final-form rulemaking.

Test wells and exploratory activities would be undertaken first to determine potential production well site locations; and the Department encourages these valuable data gathering activities. Potential production well sites would then be addressed through the pre-drilling plan. Preliminary source water assessments do not involve water quality monitoring and are primarily intended to determine

nearby potential sources of contamination and the susceptibility of the production water source to contamination, not to assess existing water quality in the well. In addition, the Groundwater Monitoring Guidance Manual is used by the Department and other agencies to address groundwater sampling and monitoring issues.

31. Comment: Monitoring of all entry points annually, monitoring of all sources at all entry points, and comprehensive monitoring plan requirements: Water suppliers support the concept of monitoring all active sources to ensure the public is receiving water that is safe to drink. However, the proposed language is vague and will create more questions, won't address PADEPs concerns, and could create greater risks.

1. Time to comply: If any version of this provision is adopted it needs to give water suppliers at least one year from the effective date to prepare in advance of its effective implementation date. Additional sampling will result in additional costs which must also be passed along to our customers. In addition, the comprehensive monitoring plans are significant and a year to develop them is needed.
2. Source Status: Water suppliers recommend that the Department allow sources to be kept in reserve status.
3. Requiring Annual operation of all sources and entry points is not feasible and increases risk: This provision appears to dictate to water suppliers how to operate their system and would force systems to supply water through an entry point annually for a particular source that is not in regular use. This seems to overreach the goal of representing sources in routine compliance monitoring and begins to dictate operation of the system.

This approach would force systems to abandon reserve or backup sources and thus increase risk to respond to extreme events. (16, 22, 33, 40)

Response: The Department continues to have concerns that gaps in the monitoring of back-up water sources and entry points put public health at risk. The scope and magnitude of these concerns were highlighted in the preamble to the proposed rulemaking at 47 Pa.B. pages 4997 - 4998 and 5004. However, the Department also acknowledges the concerns from TAC and several commentators. Therefore, the proposed rulemaking was amended in this final-form rulemaking to allow for the use of the designation "reserve" for select sources and entry points. Reserve sources will be tracked using special permit conditions and will require Department approval, complete monitoring, and a thorough assessment for treatment efficacy prior to use. These additional measures should ensure the safe use of these sources. All other sources are required to be included in routine compliance monitoring. These amendments are set forth in a new § 109.301(15) and in the comprehensive monitoring plan requirements under § 109.717 (related to comprehensive monitoring plan). The Department has also deferred the implementation date for these requirements to one year after the effective date of this rulemaking. Finally, the comprehensive monitoring plan requirements have been revised for clarity.

These amendments are intended to clarify the monitoring requirements for entry points that do not provide water continuously, and address concerns related to gaps in the monitoring, reporting and tracking of back-up water sources and entry points. As per Federal and Commonwealth regulations,

40 CFR 141.23(a), 141.24(f) and (h) and 141.26(a) and 25 Pa. Code §§ 109.301 and 109.303, respectively, all sources and entry points must be included in routine compliance monitoring to ensure water quality meets safe drinking water standards. Currently, sources and entry points that do not provide water continuously are required to be monitored when used. However, monitoring requirements for back-up sources are not currently tracked, which means no verifiable controls are in place to ensure that all sources and entry points meet safe drinking water standards.

These concerns were most recently highlighted in a 2010 report from EPA’s Office of Inspector General entitled “*EPA Lacks Internal Controls to Prevent Misuse of Emergency Drinking Water Facilities*” (Report No. 11-P-0001). Note: The term “emergency” is often used to describe sources other than permanent sources. In this Commonwealth, some of these back-up sources have not been used in at least five years, and, therefore, the Department does not know the water quality for these sources.

In order to better understand the scope of the problem in this Commonwealth, the following data was retrieved from the Pennsylvania Drinking Water Information System (PADWIS).

Entry Points (EP)				
PWS Type	Total No. EPs	No. Permanent EPs	No. Non-Permanent EPs	% Non-Permanent EPs
CWSs	3,330	3,003	327	10%
Others	7,880	7,760	120	2%
Total	11,210	10,763	447	4%

An entry point is the place at which finished water representative of each source enters the distribution system. Routine compliance monitoring is not tracked at non-permanent entry points. Non-permanent entry points include the existing categories of seasonal, interim, reserve, and emergency entry points.

Based on the data, CWSs provide finished water to consumers through a total of 3,330 entry points, 327 (or 10%) of which are non-permanent. Therefore, as many as 10% of all entry points may not be included in all required monitoring prior to serving water to consumers.

The numbers are higher at the individual source level.

Water Supply Sources (wells, springs, surface water intakes, etc.)				
PWS Type	Total No. Sources	No. Permanent Sources	No. Non-Permanent Sources	% Non-Permanent Sources
CWSs	5,252	4,634	618	12%
Others	8,604	8,297	307	4%
Total	13,856	12,931	925	7%

For CWSs, as many as 12% of all sources may not be included in routine compliance monitoring, yet these sources can be used at any time.

The Department also reviewed the monitoring history of the 447 non-permanent entry points mentioned above.

Non-Permanent Entry Points (EP)			
PWS Type	No. EPs	No. & % of EPs with <u>No</u> Monitoring Data (Since 1992)	No. of EPs with <u>Some</u> Monitoring Data
CWSs	327	143 (44%)	184 (of these EPs, 47 were sampled in 2016, 37 were sampled during the 2012-2015 monitoring period, and the remaining 101 were sampled prior to 2012.
Others	120	7 (6%)	113 (55 EPs have recent data (2016)).
Total	447	150 (34%)	

For CWSs, 143 (or 44%) of all non-permanent entry points have **no** monitoring data since 1992. Of the 184 entry points with some data, most of the data are 5 to 10 years old.

The use of unmonitored sources and entry points could adversely impact basic water quality, including pH, alkalinity, turbidity, corrosivity and lead solubility, dissolved inorganic carbon, and natural organic matter. Water suppliers may have limited information about how these sources or entry points will impact treatment efficacy and distribution system water quality. In addition, back-up or emergency sources may have poor water quality or Maximum Contaminant Level (MCL) exceedances. The use of these sources without proper monitoring and verifiable controls could lead to an increased risk to public health.

Finally, treatment facilities and other appurtenances associated with these sources may no longer be in good working order. Back-up sources and entry points with unknown water quality or that have been unused or are no longer in good working order provide a false sense of security in terms of system resiliency and emergency response. While the Department understands that many facilities are not used on a 24/7 basis, these amendments will ensure that all permitted sources and entry points are monitored at least annually.

The Department anticipates that select purchased interconnections will be able to retain the “emergency” designation if the following criteria are met. The Department anticipates proposing technical guidance in the near future that includes these criteria. As noted previously, the term “emergency” is often used to describe sources other than permanent sources.

- Using the last three years of historical water use data, the water supplier can demonstrate that the purchased interconnection has only been used for emergency purposes.
- Emergency use has not occurred more than 14 days per year, excluding use under Commonwealth or Federal emergency declarations.

- The Department has conducted an annual compliance check using reported water use data.

On a case-by-case basis, the Department may allow the use of the “reserve” designation for select sources and entry points, without conducting routine annual compliance monitoring, if documentation is provided to the Department that supports the use of this designation. Select sources and entry points that meet these criteria will be covered by a special condition in the permit that requires Department notification and completion of compliance monitoring prior to use.

32. Comment: Management of back-up water sources and entry points: EPA has reviewed the revisions to §109.301(11)(i) and (ii), §109.303(a), and §109.303(i) related to addressing gaps in monitoring, reporting, and tracking of back-up sources. EPA commends the Department for taking proactive actions to better manage these sources which the EPA's Office of Inspector General cited as concerns in its 2010 report “EPA Lacks Internal Controls to Prevent Misuse of Emergency Drinking Water Facilities”. EPA and IRRC suggest that the Department: (1) add a definition of the term “back-up sources” in §109.1 (Definitions); and (2) annotate “all entry points” as including those served by back-up sources in §109.301(ii) (monitoring requirements) and § 109.717(a) (comprehensive monitoring plan). EPA and IRRC also recommend that the Department incorporate language to clarify how the proposed revisions apply to interconnections. EPA has reviewed the revisions to §109.303(a)(4) which clarifies monitoring requirements to ensure representative sampling. In particular, for those sources not blended at a consistent ratio or alternated prior to the entry point, the revisions require additional samples be taken. EPA commends the Department for ensuring that samples collected are representative of all sources being used. The IRRC notes that the proposed rulemaking, in § 109.301(11)(ii), adds the requirement that “at a minimum, all entry points shall provide water to the public on an annual basis to ensure all sources and entry points are included in routine compliance monitoring.” The IRRC asked the Board to address in the final preamble the economic impact and feasibility of requiring all entry points to provide water to the public, as well as the implementation schedule. (31, 40)

Response: The Department does not believe that a definition for “back-up sources” is needed because the term is not used in the regulations. The term was used in the background information for this rulemaking to better explain the scope of non-permanent facilities. Instead, the term “reserve” has been added to the final-form rulemaking. For the same reason, it is not necessary to add “back-up sources” to § 109.301. The definition of “entry point” is established in existing § 109.1.

Regarding interconnections, please see the summary of amendments to § 109.301 within Section E of the preamble to this final-form rulemaking, which clarifies how the revisions apply to interconnections. Additional information will be provided in guidance. The Department has revised this final-form rulemaking to include the designation “reserve” in § 109.717 rather than define the term “back-up sources” in § 109.1, to allow select sources and entry points to remain off-line until needed. Please see the discussion of §§ 109.301, 109.303, 109.703 and 109.717 in Section E of the preamble for this final-form rulemaking for more information, including an explanation of how interconnections will be affected. Regarding the economic impact and feasibility of requiring all entry points to provide water to the public, the final-form rulemaking no longer requires all entry points to be used on an annual basis. Instead, water suppliers will be able to determine when reserve

entry points are needed, and may request Department approval to use reserve entry points. Reserve entry points must be monitored when used.

In response to public comments, the effective date of these amendments will be deferred for one year following rule promulgation.

Please also see the response provided to Comment #31 for additional information.

- 33. Comment: More stringent turbidity requirements:** The change from 0.3 NTU to 0.30 NTU and from 1 to 1.0 NTU represents a significant change in how turbidity is measured. EPA currently defines the turbidity measurements as 0.3 and 1 NTU and does not use two significant digits. PADEP should follow the federal requirements as they are sufficient. The IRRC notes that the Board proposes to reduce acceptable turbidity levels in § 109.202(c)(I)(i)(A), making the maximum level more stringent than Federal standards. The IRRC asks the Board to explain the reasonableness and economic impact of making this requirement more stringent than Federal standards. The IRRC’s comment also applies to §109.701(a). (15, 16, 22, 24, 27, 40)

Response: While the Department favors establishing more stringent individual filter effluent (IFE) and combined filter effluent (CFE) turbidity compliance and trigger levels of 0.30 NTU and 1.0 NTU for surface water filtration plants, in response to numerous comments from TAC and commentators, the Department is deferring such amendments to §§ 109.202(c)(I)(i)(A) and 109.701(a) until the EPA completes its six-year review of the Federal turbidity requirements established under the Surface Water Treatment Rules. This will allow the Department to consider EPA’s proposed changes before moving forward with proposed modifications to applicable state regulatory requirements. Until that time, the Department encourages filter operators to voluntarily meet optimal water quality levels and respond to trends of increasing turbidity as quickly as possible. This can be accomplished through the use of the Department’s existing programs, including the Area-Wide Optimization and Filter Plant Performance Evaluation and Partnership for Safe Water programs. Through these programs, the SDW program has always dedicated significant resources towards compliance assistance / violation prevention at surface water filtration plants.

Additionally, the proposed alarm and shutdown capability amendments under § 109.602 (relating to acceptable design) remain in this final-form rulemaking, which are also targeted at surface water filtration plants. The automated plant shut down requirements are intended to prevent poor quality water from reaching customers, which will protect public health, reduce PWS costs related to corrective actions and issuing public notice, reduce costs to the community, and maintain consumer confidence. Therefore, the improved alarm and shutdown capabilities that will occur as a result of systems complying with this final-form rulemaking are a very important interim public health protection measure which will be in place while the Department awaits EPA’s future actions on potential more stringent turbidity provisions.

- 34. Comment:** There is no peer reviewed published data showing that the current approved online turbidity measurement systems can reliably provide measurements to support two significant digits for compliance. (15, 16, 22)

Response: The manufacturer's specifications for the most commonly used compliance monitoring turbidimeter in drinking water filtration plants throughout this Commonwealth specify capability better than two significant digits. The specifications include: Range 0.001–100 nephelometric turbidity units (NTU); Limit of Detection 0.0032 NTU (according to criteria specified by ISO 15839); Resolution (Displayed) 0.0001 NTU up to 9.9999 NTU; Repeatability Better than $\pm 1.0\%$ of reading or ± 0.002 NTU, whichever is greater for each range. It is critical to note that in order to comply with existing turbidity requirements, water systems should routinely consider two significant digits when evaluating their individual and combined filter effluent turbidity data. The vast majority of filter plants throughout this Commonwealth have established turbidity related alarms and standard operating procedures which reference two significant digits; and, these have been in place since approximately the late 1990's. Additionally, in 2005, EPA established specific compliance criteria for membrane filtration plants to remove membrane filters from service and take investigative actions whenever filter effluent turbidity reached 0.15 NTU. Please also see the response provided to Comment #33 for information about this final-form rulemaking.

35. Comment: Availability of CFE: Under § 109.701(a)(2)(i)(A), the test results for performance monitoring for PWSs providing filtration and disinfection of surface water or GUDI sources is being revised to include "the combined filter effluent" turbidity performance monitoring. However, combined filter effluent may not be available in certain filter plants. (16, 22)

Response: Every filter plant in this Commonwealth has been required to establish a CFE compliance monitoring location prior to obtaining an operations permit. For systems that do not have a CFE location which directly complies with the definition of this monitoring point, the Department has historically considered, and will continue to consider, on a case-by-case basis, alternative methodologies to comply. More specifically, if it is physically impossible for a system to obtain a representative sample (via sample line) from the actual CFE monitoring location, the Department will allow for instantaneous averaging of the IFE turbidity results to be reported for CFE compliance. In these instances, the water supplier would be required to make reasonable efforts to address the lack of CFE sampling during any future plant modifications. Sole reliance on an instantaneous average of IFE turbidity makes the water supplier more vulnerable to reporting violations in the long term, should the system experience a breakdown in IFE monitoring equipment. Therefore, it is to the water supplier's advantage to develop a true CFE monitoring location if at all feasible.

36. Comment: Can we assume the following does not pertain to permitted bulk spring sources (with PWS #s) that are groundwater (non-GUDI) sources? (a) < 0.30 NTU in at least 95% of measurements per month, and (b) < 1.0 NTU at all times? (23)

Response: The proposed turbidity modifications referenced in the Department's response to Comment #33 are not included in the final-form rulemaking. However, to answer this specific question, the turbidity requirements do not apply to sources that have been adequately evaluated and confirmed to be ground water through proper testing protocols. Please see the response provided to Comment #33 for more information.

37. Comment: Alarm and shutdown requirements: Under §109.602(i)(2), alarm and shutdown capabilities must be established for the parameters, including, at minimum “(i)(2)(iv) *Any other operational parameter determined by the Department as necessary for the system to maintain compliance.*” This may be too far reaching and cost prohibitive. (16, 22)

Response: The Department agrees that this language may be overly broad and has removed it. The Department will rely on appropriate water system personnel (for example, properly certified operators and consulting engineers) to carefully evaluate what additional operational parameters may require alarms in order for their particular filter plant to consistently meet regulatory requirements. Additionally, if the lack of an alarm is linked to a treatment breakdown or other water supply emergency, the Department will address the system-specific deficiency through a permit or order on a case-by-case basis.

38. Comment: Auxiliary power: The issue of auxiliary power is one that should be addressed in each facility's Emergency Response Plan and up to the PWSs to decide whether such capital investment is worth the cost. (16, 22)

Response: Despite long-standing efforts to encourage water systems, through their Emergency Response Plan (ERP), to develop feasible plans for the continuous provision of adequate and safe water quantity and quality during emergency circumstances, many water suppliers are still inadequately prepared. In fact, the Department estimates that more than 400 CWSs in Pennsylvania do not have an up-to-date ERP. For those systems that have ERPs, many lack a feasible and effective plan to provide uninterrupted system service. This has resulted in significant impacts to consumers in the form of inadequate water quantity and/or quality and the resulting consumption advisories. These impacts may include:

- Lack of water for basic sanitary purposes, such as bathing, hand-washing and flushing toilets.
- Increased risk to public health when water systems experience a sharp reduction in supply, which can result in low or no pressure situations within the distribution system. Low pressure can allow intrusion of contaminants into distribution system piping from leaks, and backflow from cross connections.
- Dewatering of the distribution system can result in physical damage to pipes when the system is re-pressurized. This situation is exacerbated due to the nationwide problem with aging infrastructure.

Due to the significant public health risks and impacts to consumers, this is not simply an issue of water systems deciding whether capital investment is worth the cost. A complete cost to benefit analysis must take into account a wide variety of costs. For example, the cost of avoiding interruption of continuous supply of safe and potable water was evaluated using the Water Health and Economic Analysis Tool (WHEAT) software developed by EPA. The Department ran the model for a scenario of a water system serving 2,500 customers and experiencing a water outage for two days. The model outcomes regarding economic consequences are summarized as follows:

- The value of water sales that would have occurred if there was no disruption in water service is estimated to be \$2,891.
- The value of additional operating costs incurred during the event, which may include bottled/replacement water, equipment, other remediation, or miscellaneous costs is estimated at \$24,775.
- Total economic impact on the water utility due to the two-day outage (sum of the above losses) is estimated at \$27,666.
- Regional economic consequences for this same event are estimated at \$926,486. This is the total value of economic activity lost among businesses directly affected by the water service disruption, due to the contraction in business activity during the two-day event.

If the water utility complies with these amendments, the potential cost savings for this two-day outage, offsetting the costs to install additional auxiliary power, emergency interconnections with neighboring water systems, and/or finished water storage, are summarized above. These costs would increase with each additional day that the water outage continues. Additional costs savings to water systems and customers will be the prevention of dewatering of the distribution system piping and protection from damage to collapsed water lines (due to lack of ability to provide an adequate quantity of water to maintain positive pressure). An estimated 250 boil water advisories (BWA) occur in Pennsylvania each year and 25% or 63 BWAs are caused by water supply disruptions. The total annual cost savings to the regulated water systems is estimated at \$1,742,958. However, the regional economic cost savings to businesses is estimated at more than \$58 million. These overall cost savings are critical to consider.

After considering the TAC and public comments, the Department has modified the proposed rulemaking to include in this final-form rulemaking the option to submit a schedule for necessary improvements that have not been completed by the compliance deadlines specified in § 109.708(a) for submittal of the uninterrupted system service plan. This will help enable the cost for compliance with these provisions to be spread out over a longer period of time. Additionally, these revisions provide water suppliers with more flexibility in choosing the approach that best fits their particular water system, and adequate time to implement that plan in the most effective manner.

39. Comment: Scope of auxiliary power: Is the auxiliary power or alternative provisions requirement intended to apply to entry point facilities (e.g., source, treatment and associated pumping) or also to all types of distribution system facilities? Many PWSs have small distribution booster stations that have inadequate space or inappropriate conditions for installing onsite generators and usually located where dual power feeds are not feasible. In such instances, portable generators are utilized to meet emergency power needs. (22)

Response: CWSs will need to develop an overall plan to provide uninterrupted system service and provide adequate quantity and quality of water during emergency situations. Systems are encouraged to be prepared to utilize as many methods as possible to maximize their capability to provide uninterrupted system service for each critical operational facility. The auxiliary power / alternate provisions requirement of § 109.708 (relating to system service and auxiliary power)

applies to all critical facilities, both prior to the entry point and within the distribution system. Therefore, the Uninterrupted System Service Plan (USSP) should include each critical facility utilized by the CWS. A “critical facility” is any facility necessary to supply an adequate quantity and quality of water (for example, water treatment plants, raw and finished water pump stations, finished water storage tanks, booster chlorination facilities, and others). Water system personnel are responsible for determining which facilities are considered critical based on their standard and emergency operating procedures. The most effective plans must carefully consider both the duration of time needed to switch over to a particular system service option as well as the efficacy of each option to provide adequate quantity of safe and potable water. Developing detailed Standard Operating Procedures (SOPs) for utilizing each alternative is critical to insuring efficient and effective implementation during emergency situations. Portable generators are recognized as a potential alternative option; however, water systems need to document the details in their USSP of how they will obtain and operate a properly-sized generator in a timely manner during emergency situations. If a water system identifies that a certain facility is not critical, then the USSP will include an explanation of how an adequate quantity and quality of water will be supplied without this facility in service. After considering comments regarding the scope of system specific challenges, the Department has modified the proposed regulatory language to include the option to submit a schedule for corrective actions which have not been completed by the compliance deadlines specified in § 109.708(a) for submittal of the USSP..

40. Comment: PaWARN as an alternate provision: DEP has discounted the fact that systems may avail themselves of mutual aid networks like PaWARN to meet auxiliary power demands. (16, 22)

Response: The Department disagrees with this comment. The Department fully recognizes the importance of PaWARN and encourages membership in this valuable mutual aid network. For this reason, PaWARN is listed as one critical component of a complete plan to provide uninterrupted system service. In the draft form (USSP) created for this provision, PaWARN is listed as an “alternative provision” option along with finished water storage capacity, interconnections with neighboring water systems, and rental agreements for generators. As of December 2017, PaWARN had approximately 104 members, approximately 92 of those members manage CWSs throughout this Commonwealth. This is a small subset of the 1,952 CWSs in this Commonwealth. PaWARN membership should prove valuable during small scale events; however, limited resources of PaWARN are likely to be overwhelmed during any large-scale emergency event. As more water systems join this valuable mutual aid network, its capability should increase, which would be beneficial to both water systems and customers throughout the Commonwealth.

41. Comment: Finished water storage as alternate provision: One of the alternate provisions/methods that DEP is considering (within auxiliary power or alternate provisions) is finished water storage. This should be accepted as one method to comply with this section. Backup power is very expensive upfront and also the ongoing O&M costs are substantial. Backup power can fail and does fail even with a good O&M schedule. For this reason, putting too much reliance on backup power is a mistake, when the real solution, in most cases, is adequate finished water storage. Are these regulations written only for large scale emergency events? (32)

Response: To comply with these provisions, water systems will need to develop a comprehensive plan to provide uninterrupted system service during various emergencies, both small scale and large scale, spanning both short and long-term duration. Finished water storage is recognized as one of several potential alternate provision options within the plan to provide uninterrupted system service. However, finished water storage alone provides limited resiliency, typically enabling water systems to provide adequate quantity and quality of water for limited duration emergency events. Therefore, a combination of methods and a detailed comprehensive plan are necessary to insure uninterrupted system service. After considering comments, the Department has expanded the alternate provision options even further to include a category of “other” alternate provisions. Within this category, system specific alternate provisions may be proposed to insure uninterrupted system service.

42. Comment: Minor permit amendments as general permits: Minor permit amendments are excellent candidates for general permit management. Minor amendments currently are required with tank paintings, equipment upgrades, and minor chemical changes, such as using sodium hydroxide in lieu of lime for pH adjustment. A general permit for some, if not all, minor permits would help PWSs obtain their operating permits quicker and would relieve some of the burden of DEP (also with lack of staff in the field) having to do site visits to confirm work done. (16, 22)

Response: The new provisions under § 109.511 (relating to general permits) are needed to establish the regulatory basis for the issuance of general permits. The Department specifically requested comment on the types of modifications or activities that may be appropriate for a general permit. The Department is currently evaluating the types of modifications that may best be served by a general permit. The evaluation will include the amount of staff time required for review and any follow-up requirements after issuance of a permit. Public health protection requires adequate consideration during the permitting process and is of the utmost importance. When the Department is ready to move forward with issuing a draft general permit(s), the public participation process will ensure ample opportunity to provide comment on the scope and coverage of the general permit(s).

43. Comment: Proposed modifications: The new applications required by section 109.505 are proposed to cost \$50 upon submission, which, if they were one-time application fees for approval of the water system, are limited, but paragraph 109.505(2)(ii) would also require the noncommunity water system to submit a new application any time there is a “proposed modification” (as opposed to a “substantial modification”) or a “change of ownership.” What is a “proposed modification”, do changes such as conversions to LLCs, changes of partners or names, typos on applications included and a new application (additional paperwork) and would a \$50 fee be required of the applicant each time? (28)

Response: Noncommunity water systems require a permit or approval from the Department prior to making any modifications. A modification is any change to the public water system facilities. The requisite fee will be required for any such modifications. An additional fee is required for a request for a change in legal status, such as a transfer of ownership, incorporation or merger.

44. Comment: Disinfection treatment at health care facilities: Health care facilities face unique challenges when considering the installation of supplemental disinfection systems as they relate to current DEP regulations. We urge the DEP to take advantage of the proposed rulemaking process to

consider hospital water systems that purchase water from a public water system as a “single system”—therefore exempting them from unnecessary and undue regulatory burdens, which would be consistent with the guidance provided by the EPA. To the extent that DEP is unable or unwilling to take this step, we ask that DEP allow hospitals to take advantage of the general permit process outlined in the proposed rule to specifically address a health care facility’s unique circumstances related to the implementation of supplemental disinfection to the health care facility’s water supply. The IRRC asks the Board to ensure that the final-form Regulatory Analysis Form and regulation make clear who is required to comply with the regulation. (20, 40)

Response: The Department appreciates the comments and recognizes the unique challenges faced by healthcare facilities installing disinfection treatment. The comments relating to exemptions under the SDWA and regulations are outside the scope of this final-form rulemaking. Regarding the comments related to permitting requirements for disinfection treatment, the Department is in the process of evaluating which changes to a water system that are currently covered under minor amendments may best be served by a general permit. The evaluation will include the potential for risk to public health, the amount of staff time required for reviews, and any follow-up requirements after issuance of a permit. Please also see the response provided to Comment #42 for more information.

45. Comment: NSF International (NSF) certification: Section 109.606 provides for acceptability of certain equipment certified in conformance with Guidelines for Public Drinking Water Equipment Performance issued by NSF (referred to as "PDWEP"); the current wording in the regulation regarding "NSF certification for materials or equipment which may come into contact with or affect the quality of the water" is overly broad. For example, it makes no sense to attempt to provide DEP NSF/ ANSI certification for raw water facilities or materials such as concrete or raw stainless-steel materials which are commonly used in Water Treatment Plant facility construction. In other instances, NSF certification for equipment that is commonly used in the water industry is not readily available or in some cases not available at all. Some products such as magnetic chemical transfer pumps do not provide NSF certification but are preferred to be used because of their leak proof design characteristics. Finally, it is unclear how a standards agency, such as NSF, is going to certify performance of a given piece of equipment, such as a GAC contactor, when the unit's performance is directly related to source water quality characteristics and must be modelled on a case by case basis. The IRRC acknowledged the comment regarding overly broad wording. The IRRC also noted that a commentator commented that the term "equipment" and the expanded certification requirements in § 109.606 (relating to chemicals, materials and equipment) are unclear. The IRRC noted that the commentator stated that potentially requiring every pump or piece of equipment on a treatment facility to be certified will be very costly, and it is uncertain what public health risk this proposed change is designed to address. The IRRC asked that the Board to define “equipment,” clarify its intent regarding certification, and explain the reasonableness of the expanded certification, including addressing economic impacts. (22, 27, 40)

Response: According to NSF, a 2016 survey of members of the Association of State Drinking Water Administrators (ASDWA) found that 48 states have legislation, regulations or policies requiring compliance with NSF standards. (NSF International (2016), “Survey of ASDWA Members on the Use of NSF/ANSI Standards,” available at

http://www.nsf.org/newsroom_pdf/water_asdwa_survey.pdf) In this Commonwealth, NSF certification requirements under § 109.606 are long-standing and are intended to ensure the safety and efficacy of chemicals, materials and equipment that come into contact with water. NSF certification ensures that harmful metals such as cadmium, chromium and lead do not leech from materials and equipment. NSF certification also ensures that water treatment devices can meet manufacturers' claims and effectively treat the water. The intent of the revisions in § 109.606 is to clarify that "equipment" has always been included, as evidenced by the fact that "equipment" has always been part of the title of §109.606. Under existing Department protocols, water systems must take all steps necessary to identify and propose the use of NSF-approved equipment. If NSF-certified equipment is not available, the Department, on a case-by-case basis, will allow the use of other equipment, provided the equipment does not pose an increased risk to public health. The Department is not expanding the scope of equipment for which NSF certification requirements apply; therefore, no additional costs are expected to be incurred.

In response to public comments, the Department has revised the language in § 109.606 of the final-form rulemaking to clarify that chemicals, materials and equipment that come in contact with the water or may affect the quality of the water must be acceptable to the Department. In other words, this section applies to the wetted parts of materials and equipment, and excludes motors, casings and the like that do not come in contact with the water. The Department believes that this clarification should alleviate the need for a definition for "equipment."

Finally, the provisions under § 109.606 allow the use of other standards to meet these criteria. For example, the use of materials, such as concrete and stainless steel, which meet American Water Works Association (AWWA) standards, would be acceptable to the Department.

46. Comment: Public notification provisions for Ground Water Rule: DEP should retain the current provision in §109.1303 that allows for 5 successive *E. coli* tests prior to triggering corrective actions and public notification. DEP should also take this occasion to clarify in the regulations that no public notification should be required where the water system has in place an adequate treatment program. (23, 30, 40)

Response: EPA approves analytical methods based on the reliability of a method to have a low risk of samples being false positive or false negative. In the preamble to the proposed Federal Ground Water Rule, EPA states, "that, in the interest of public health, a positive sample by any of the methods listed in Table III-4 should be regarded as a fecal indicator-positive source water sample". 65 FR 30230 (May 10, 2000). The proposed and final Federal rule along with the Department's revisions to Chapter 109 provide a means for the laboratory or state to invalidate samples. Although EPA allowed the five additional *E. coli* samples as a concession relating to the rare event that a sample is false positive, EPA's commentary in the preamble to the final rule states "that in most cases these five additional samples should capture the fecal contamination event since the samples are taken within 24 hours". 71 FR 65594 (Nov. 8, 2006). This statement acknowledges that a risk to public health exists because the five additional samples may miss detecting the fecal contamination. In other words, the fecal contamination that was detected in the original sample was a true positive; however, because contamination is neither constant nor immobile, the five additional

samples may miss detecting the contamination event. This risk of missing the event is the main rationale for the Department’s decision to delete the five additional samples.

Further supporting this position, the Federal regulations at 40 CFR 141.402(g) along with Chapter 109 acknowledge the risk to public health from a single *E. coli* positive sample by requiring Tier 1 public notification (PN) for any source water sample testing positive for *E. coli*. This Tier 1 PN is required to be issued within 24 hours of notification of the initial sample testing positive. Under the Federal rules, if five additional *E. coli* samples are allowed by a state, the Tier 1 PN must still be issued upon notification of the first positive sample and not be postponed while waiting for the results of additional samples. The deletion in the final-form rulemaking of the option for five additional samples makes Chapter 109 more consistent with the Food and Drug Administration’s (FDA) regulations which bottled water systems are also required to follow. The FDA regulations at 21 CFR 129.35(a)(3)(i) provide in relevant part that “[b]efore a bottler can use source water from a source that has tested positive for *E. coli*, the bottler must take appropriate measures to rectify or otherwise eliminate the cause of *E. coli* contamination of that source in a manner sufficient to prevent its reoccurrence. A source previously found to contain *E. coli* will be considered negative for *E. coli* after five samples collected over a 24-hour period from the same sampling site that originally tested positive for *E. coli* are tested and found to be *E. coli* negative. Records of approval of the source water by government agencies having jurisdiction, records of sampling and analyses for which the plant is responsible, and records describing corrective measures taken in response to a finding of *E. coli* are to be maintained on file at the plant.” The FDA regulations recognize the five additional samples as a means to show that a corrective action taken in response to a single positive sample has eliminated or established protection of the source from fecal contamination.

Concerning “adequate treatment” as it relates to 4-log inactivation and/or removal of viruses, the Federal rule at 40 CFR 141.403(b) only allows a system to be relieved of the requirement to conduct triggered source water monitoring if the system notifies the state in writing that it provides at least 4-log treatment of viruses and begins compliance monitoring in accordance with paragraph (b)(3). Notification to the State must include engineering, operational, or other information that the State requests to evaluate the submission, which in Pennsylvania is accomplished through the permitting process. The Federal rule does not allow systems, which have not provided notification and information to the State and are not conducting the required compliance monitoring, to retroactively demonstrate 4-log treatment had been provided in order to avoid public notification.

Regarding economic impact, water systems will no longer be required to collect the five additional *E. coli* samples, which will result in a cost savings. Further, all bottled water systems are already required to provide continuous disinfection. So, if 4-log treatment is triggered, no additional capital costs will be incurred—treatment already exists. However, some bottled water systems will need to modify operational practices using existing treatment, and improve associated monitoring and reporting practices, as specified in a revised operations permit, to insure adequate 4-log treatment is maintained.

47. Comment: It would be most helpful if the rulemaking would provide more specific details about the types of businesses these “small water systems” are because most of them likely do not

consider themselves to be “water systems,” but rather campgrounds, motels, restaurants, gas stations, ski resorts, manufacturers, etc. (28)

Response: The various definitions and types of PWSs that must comply with the SDWA and regulations are not being amended by this final-form rulemaking. The longstanding existing State and Federal regulatory definitions and guidance provide more information about the types of water systems. In general, nontransient noncommunity water systems include facilities that serve 25 or more of the same people, but are not residential facilities. This includes schools and places of business with 25 or more employees. Transient noncommunity water systems generally serve a transient population and include restaurants and campgrounds. The lower fees for small water systems and businesses were established to bear a reasonable relationship to the actual cost of services provided and in a manner that minimizes the adverse impact on water systems with fewer customers to bear the cost.

48. Comment: The requirements for provision of system maps under § 109.706 (relating to system map) should be limited to community and non-community systems; a map requirement is unnecessary and inappropriate for bottled water, vended water, and bulk hauling systems. (29, 40)

Response: The Department agrees and has amended § 109.706(a) in the final-form rulemaking to clarify that system map requirements do not apply to BVRBs.

49. Comment: Regarding the revisions to §109.301(12) related to monitoring requirements for disinfection byproducts (DBPs) and disinfection byproduct precursors, consider changing “disinfection bypro-ducts” to “disinfection byproducts”. (31)

Response: The Department agrees and has modified the final-form rulemaking accordingly.

50. Comment: Consumer Confidence Report (CCR): The Department should continue to pursue electronic reporting of CCRs by community water suppliers as an efficient and environmentally friendly alternative. (31)

Response: The Department will continue to pursue this option.

51. Comment: We strongly encourage the Department to organize additional stakeholder meetings with representatives from all segments of the regulated community in order to develop final-form regulations that are clear, reasonable and have the least adverse economic impact while protecting the public health, safety and welfare. We ask the Board to address the reasonableness, economic impact and implementation of changes made to these sections of the final-form regulation in the revised Preamble. (40)

Response: The fees and other proposed amendments were thoroughly discussed with TAC and other stakeholders through several advisory committee meetings and a public webinar. Advisory committee meetings were announced publicly and are open to the public. Through the webinar and a series of letters from EPA and the resulting news articles regarding the Department’s limited resources and resulting poor performance, information about the proposed rulemaking was broadcast

statewide. The additional focus from the news media resulted in several comments being submitted from the general public, which rarely happens with proposed drinking water regulations. With regard to reasonableness, economic impact and implementation of changes made to the rulemaking, please refer to the responses to Comments #16 and 24, and the preamble for the final-form rulemaking.

52. Comment: If significant revisions to the regulation are being considered as a result of this input, the regulated community and other interested parties should be afforded an opportunity to review and comment on the text of the regulation through publication of an Advanced Notice of Final Rulemaking (ANFR). An ANFR would provide the opportunity to review and reach consensus on remaining issues before submittal of a final-form regulation. (40)

Response: The Department amended several sections of the proposed rulemaking in order to be responsive to TAC and public comments. TAC was generally supportive of the amendments that were made to the general update provisions of the final-form rulemaking regarding turbidity requirements and the use of the “reserve” designation for select sources and entry points. The Department does not believe that the amendments require publication through an ANFR.

53. Comment: We ask the Board to ensure that the final-form RAF and regulation make clear who is required to comply with the regulation and how the final-form regulation affects the various segments of the regulated community. We ask the Board to consider regulatory methods to minimize adverse impacts on small businesses or explain the reasonableness of not considering alternatives. (40)

Response: The various definitions and types of PWSs that must comply with the SDWA and regulations are not being amended by this final-form rulemaking. The existing State and Federal regulatory definitions and guidance provide more information about the types of water systems subject to the regulatory requirements. In general, nontransient noncommunity water systems include facilities that serve 25 or more of the same people, but are not residential facilities. This includes schools and places of business with 25 or more employees. Transient noncommunity water systems generally serve a transient population and include restaurants and campgrounds. Finally, the fees for small water systems and businesses were established to bear a reasonable relationship to the actual cost of services provided by the Department and in a manner that minimizes the adverse impact on water systems with fewer customers to bear the cost. Please see Section F of the preamble for this final-form rulemaking and see the responses to Questions 17, 24, 26 and 27 of the Regulatory Analysis Form (RAF) for this final-form rulemaking for more information about who is required to comply with the regulation, how the final-form regulation affects the various segments of the regulated community, the costs for the various segments of the regulated community, including small businesses, and consideration of alternative regulatory approaches.