



December 7, 2016

Mr. Kurt Klappkowski  
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Department of Environmental Protection, Policy Office  
Rachel Carson State Office Building,  
P.O. Box 2063  
Harrisburg, PA 17105-2063

Re: *DEP ID: Interim Final Technical Guidance Document 800-0810-002, Policy for the Replacement or Restoration of Private Water Supplies Impacted by Unconventional Operations [46 Pa.B. 6392]*

Dear Mr. Klappkowski,

The Marcellus Shale Coalition (MSC) represents approximately 220 natural gas producers, midstream and supply chain members who are committed to the safe and responsible development of the natural gas resources in the Marcellus, Utica and related geological formations. Our members represent many of the largest and most active companies in natural gas production, gathering and transmission in the country, as well as the consultants, suppliers and contractors who work with the industry.

The MSC supports the Pennsylvania Department of Environmental Protection (DEP) efforts to develop Policy for the Replacement or Restoration of Private Water Supplies Impacted by Unconventional Operations (Policy) intending to clarify the requirements contained within Chapter 78a Section 78a.51. We have the following comments on the Policy:

1. Page i Purpose: The MSC recommends that this be revised to be consistent with respect to the scope of the document and contain the applicable sections of the laws and regulations cited. Updated below:

*“The purpose of this guidance is to inform Department staff, the regulated industry and the public how to comply with the water supply restoration and replacement requirements **for private water supplies** in the 2012 Oil and Gas Act, **Section 3218**, The Clean Streams Law, **Section XXX (?)**, and 25 Pa. Code Chapter 78a, **Section 78a.51.**”*

2. Page i Applicability: The applicability of the Policy needs to be clarified that it is to be for new water supply complaints that originated on or after October 8, 2016. An applicability definition indicating that if the investigation is more than 6 months old it is not subject to this TGD would help to provide industry with clarity on the path forward for existing complaints. The MSC requests this language be added to this section.
3. Page i Authority and Purpose: Both the Authority and Purpose statements on page i refer to the Clean Streams Law, but it's unclear exactly which provisions of the Clean Streams

Law are being referenced. The MSC requests that the applicable provisions of the Clean Streams Law, if any, should be described in the Background section on pages 1-2, the same way as the Oil & Gas Act (Act) provisions are explained therein.

4. Page i Policy and Disclaimer: The Policy statement on page i states, “DEP will follow the guidance presented in this document” however, the Disclaimer section on page i states, “DEP reserves the discretion to deviate from this policy.” The MSC requests the DEP to reconcile the conflict between the two statements.
5. Page 1 Background Paragraph 1: The MSC recommends the following revision so that the language matches the referenced Oil and Gas Act (3218(a)) exactly:

*“Section 3218(a) provides that the quality of a restored or replaced water supply must meet the standards established under the Pennsylvania Safe Drinking Water Act (35 P.S. §§ 721.1–721.17) or is comparable to the quality of the water that existed prior to pollution if the water quality exceeded those standards.”*

6. Page 1 Background Paragraph 3: The DEP should consider adding language in this paragraph that the Department is the lead in an investigation and has the sole responsibility to make a determination of impact. Additionally, the MSC recommends defining the applicable roles and responsibilities of both the DEP and Pennsylvania Department of Health (DOH) so that operators and landowners understand to whom they should submit a complaint.
7. Page 1 Background Paragraph 4: The term “casual connection” is not defined in regulation or in the Act. The presumption buffer from the vertical wellbore is clearly defined in the Act. If the definition of “casual connection” varies from this, it should be defined, or it should be removed from the Policy altogether.
8. Page 1 Background Paragraph 5: The citation at the end of this paragraph should be updated as follows: “See 58 Pa.C.S. § 3218(c)(2)”
9. Page 1 Background Paragraph 6: To be consistent with the Act, item 1 should be revised as follows:

*“The pollution existed prior to the drilling, stimulation or alteration activity as determined by a pre-drilling or pre-alteration survey.”*

10. Page 1 Background Paragraph 6: To be consistent with the Act, item 3 should be revised as follows:

*“The water supply is not within 2,500 feet of an unconventional vertical wellbore.”*

11. Page 2 Background Paragraph 6: The MSC recommends that “unconventional wells” be removed from item 4, since the beginning of the document limits the scope of the Policy to these wells. The item should be revised as follows:



***“The pollution occurred more than 12 months after the later of completion, drilling, stimulation or alteration activities.”***

12. Page 2 Background Paragraph 6: To be consistent with the Act, item 3 should be revised as follows:

***“The pollution occurred as a result of a cause other than drilling, stimulation or alteration activity. Given the technical nature of this defense, a report documenting the cause should be prepared, signed and sealed by a geologist licensed in this Commonwealth or accompanied by an explanation of why a geologic analysis was unnecessary based on the facts.”***

13. Page 2 Background Paragraph 7: The MSC recommends the DEP add the following sentence to the end of this paragraph in the case that a water supply owner does not wish it to be replaced:

***“If the Department receives landowner notification that restoration or replacement is not desired, then the Department will consider the complaint closed and notify the landowner and operator that the operator has no further statutory obligation to restore or supply water to the landowner.”***

14. Page 2 Procedures: The MSC recommends that the DEP expand upon and provide further details of the necessary requirements of water supply impact determination procedures. These outlined procedures can be generalized but should be used as a guideline for the Department and operator representatives to complete a proper investigation. This procedure can easily be included in Policy and Document #820-4000-001 titled “Standards and Guidelines for Identifying, Tracking and Resolving Oil and Gas Violations”. The MSC suggests that the following items be added to the Policy as it relates to the necessary requirements of a water supply impact determination investigation:

- Type of complaint – water quality/quantity;
- Timing of oil/gas activities in comparison with the type of complaint;
- Any documented water quality/quantity issues with the supply in question prior to the start of oil/gas activities;
- Any issues experienced during the drilling, cementing and stimulation of the oil/gas well(s) in question;
- Any other variables that need to be considered as part of this complaint (geology, water supply construction, low yield characteristics of local aquifer, change in usage of the supply, etc.).

15. Page 2 Procedures A. Paragraph 2: This paragraph is not consistent with the regulatory text in §78a.51(b) & (h). The Policy states that *“all water supply concerns related to oil and gas operations should be referred to the appropriate Oil and Gas Division Office,”* and refers to Appendix A for the contact information, which is limited to those local phone numbers and addresses. The MSC recommends that this paragraph be revised to be consistent with both §78a.51(b) & (h) and include the exact language. Please see additional information below:

§78a.51(b), which applies to landowners and affected persons, also allows for calling a state-wide phone number (800) 541-2050. This option should be included in the Policy.

§78a.51(h), which applies to operators, requires the notification to the Department to be made electronically through its website, so the reference to the Division offices and Appendix A would not be appropriate for those notifications.

16. Page 2 Procedures A. Paragraph 4: The MSC recommends the following addition to this paragraph:

*“Once the Department makes a positive determination that an unconventional well operator is responsible for adverse impacts to a water supply, the Oil and Gas District Offices should use the procedures outlined in this document and in TGD 820-4000-001 as guidance to ensure adequate and timely replacement or restoration of an affected water supply. Oil and Gas District Offices should follow this guidance unless the circumstances of a specific case warrant a different approach to resolving the case, within the requirements of the law.”*

17. Page 2 Procedures B Paragraph 1: The MSC recommends that the DEP add a sentence to this paragraph indicating that a landowner may decline water from the operator. An operator should not be required to provide water if the property owner declines its delivery, whether for immediate need or as a temporary water supply.

18. Page 2-3 Procedures B Paragraphs 2 & 3: The MSC suggests the following revisions:

*“The Department will notify the water supply user/owner that the rebuttable presumption applies to their specific case, and whether or not the operator has rebutted the presumption, and provide a fact sheet explaining rebuttable presumption and their rights under the 2012 Oil and Gas Act.*

*The Department will rescind its request to an operator to ensure delivery of water to the water supply user within 24 hours, if the operator provides a valid statutory defense to the rebuttable presumption of liability to the Department.”*

19. Page 3 Procedures B Paragraph 4: The MSC requests that the DEP add to the last sentence whenever a water supply user/owner is notified in writing of a determination

that the operator will be copied on the correspondence. The MSC recommends the paragraph to be revised as follows:

*“If the Department makes a determination that unconventional operations have adversely impacted a water supply, in which rebuttable presumption does not apply, the Department will request that the responsible operator takes measures to ensure delivery of water to the user within 24 hours of being notified of its findings. The Department will also notify the water supply user/owner of the determination in writing, while providing a courtesy copy to the operator.”*

20. Page 3 Procedures B Item 1 Paragraph 2: The MSC recommends the following revisions, for consistency with wording in TGD 820-4000-001:

“If the operator fails to ensure delivery of potable water to address immediate **human consumption** water needs of the impacted party within 24 hours of the Department’s notification, the Program Manager **may** issue an administrative order directing the operator to provide potable water immediately.

21. Page 3 Procedures B Item 2: The MSC requests that the title of this section be updated to:

*“Temporary Water Supply and/or Treatment”*

22. Page 3 Procedures B Item 2 Paragraph 1: The MSC requests that the DEP should include water buffalo and bottled water (consistent with 78a.51(f)) as well as portable temporary treatment systems (treated for known contaminants) to be utilized as temporary water supplies. Otherwise the use of temporary treatment systems could be interpreted as precluded by 78a.51(f) and only the use of water buffalo with delivered water could be used to provide replacement water within 72 hours due to the length of time it takes to get MCL samples back from a laboratory (2-3 months).

23. Page 3 Procedures B Item 2 Paragraph 1: The last sentence states that *“Temporary water replacement is only acceptable for a period approved by the Department, in writing, and does not relieve the operator of the obligation to restore or replace the water supply.”* The MSC recommends that this sentence be revised. There are no current regulations or laws to support the DEP requiring operators to obtain written approval for temporary water replacement and how long it may take to come to terms with landowners during negotiations. The sentence should state:

**“Temporary water replacement does not relieve the operator of the obligation to restore or replace the water supply.”**

24. Page 3 Procedures B Item 2 Paragraph 2: The MSC recommends deleting the reference to “sanitary purposes” since requiring compliance with drinking water standards for anything other than human consumption is inconsistent with 78a.51(e).

25. Page 3 Procedures B Item 2 Paragraph 2: 25 PA Code 109.606 does not require temporary water storage tanks and associated plumbing to be certified and in conformance with ANSI/NSF Standard 61. The MSC recommends that this sentence should either be removed, or at a minimum, the wording “*must be certified*” in this sentence should be replaced with a concept of “*should be considered*”.
26. Page 3 Procedures B Item 2 Paragraph 3: The MSC requests the DEP to justify the quantity of water being required to be provided, “*at least 75 gallons per person.*” DEP has provided no reference that supports the need for 75 gallons per person, per day. Older septic systems may have been sized on only the number of bathrooms and/or the number of residents (usually not both), and may not support the proposed amount.
27. Page 3 Procedures B Item 2 Paragraph 3: The reference to “*potable water*” should be removed as it is inconsistent with 78a.51(e). There are domestic uses other than human consumption that may not require “*potable*” water. Additionally, the requirement “*to be plumbed into the existing water supply system*” should be removed since 78a.51(f) clearly allows tank trucks and bottled water as temporary supplies and those should not be required to be “*plumbed into existing supply systems*”
28. Page 4 Procedures C Paragraph 1: The MSC requests that the DEP extend the timeframe for a temporary impact to at least one year in order to allow for the effects of seasonal differences and fluctuations to be properly evaluated in the analysis. We appreciate DEP adding the possibility of an extension upon approval, however the 6-month time frame is too short for appropriate investigation.
29. Page 4 Procedures C Paragraph 1: Remove the word “the” in the fifth sentence:
- “In lieu of a restoration or replacement plan, under these circumstances, an operator should submit a corrective action/monitoring schedule outlining the what measures will be taken by the operator to demonstrate that the quality and/or quantity of the water supply is improving and the issues may be temporary (e.g., water samples and other empirical measurements).”*
30. Page 4 Procedures D: The MSC requests the DEP consider adding information within this section on the proper ways to address long term attenuation and instances where the water quality returns to pre-drill conditions within 5 years.
31. Page 4 Procedures D Paragraph 1: This paragraph states that the water supply must be restored or replaced within 30 days of the final positive determination. The MSC requests that language be added indicating that this determination comes in the form of a letter. In addition, on page 6, the Policy states that the Department can facilitate the review and approval of the water supply restoration/replacement if the operator and water user can’t come to an agreement. The MSC recommends this paragraph be moved to page 4 as the new second paragraph in that section. It is typical that the operator and water user often will not come to an agreement on many of the restoration/replacement solutions. The MSC proposes the first two paragraphs under Procedures Section D:

*“If the Department determines that a private water supply must be restored or replaced due to pollution or diminution, within 30 days following a final positive determination (via a formal letter), the Department should issue, as appropriate, a Notice of Violation or a Request for Corrective Action requesting, among other things, a permanent water supply restoration or replacement plan (PWS Plan) with specified timeframes for milestones. See “Standards and Guidelines for Identifying, Tracking, and Resolving Oil and Gas Violations” (Document number 820-4000-001).*

**As provided in section 78a.51, if the well operator and the water user are unable to reach agreement on the means for restoring or replacing the water supply, the Department or either party may request a conference under Section 3251 of the 2012 Oil and Gas Act (relating to conferences) to help facilitate the review and approval of the means for permanently restoring or replacing the water supply.”**

32. Page 4 Procedures D Paragraph 3: A PE/PG stamp and involvement is unnecessary and not something within current laws or regulations for the siting, developing, or implementation of replacement domestic water wells in the Commonwealth. The MSC recommends deleting this, as someone with expertise on this subject matter should be all that is required. Lastly, in the third sentence in this paragraph a comma is needed between “calculations” and “photographs.”

33. Page 5 Procedures D Item a Paragraph 1: For consistency with 78a.51(e) the MSC recommends the following revisions:

*“The quality of a restored or replaced water supply **used for human consumption** must meet the standards established under the act of May 1, 1984 (P.L. 206, No. 43), known as the Pennsylvania Safe Drinking Water Act, or is comparable to the quality of the water supply before it was affected by the operator if that water supply exceeded those standards. See 58 Pa.C.S. § 3216(a); see also 25 Pa. Code § 78a.51(d)(2) **and 78a.51(e).**”*

34. Page 5 Procedures D Item a Paragraph 2: A water supply owner does not have the authority to request additional treatment. Only DEP has that discretion, so “the water supply owner” should be removed from the sentence. The MSC recommends the following:

**“If deemed necessary by the Department, additional treatment of a public drinking water supply used to replace an impacted water supply may be required to meet these conditions.”**

35. Page 5 Procedures D Item b: While the MSC agrees that the quantity of an impacted water source needs to be restored to pre-drill conditions, there needs to be additional language that ensures that the water user will not increase the water demand requirement for replacement because of unplanned or unknown “future plans” for water usage.

36. Page 5 Procedures D Item h: The following language in previous drafts of the Policy has been removed in this final draft version

*“If necessary, the Department will use the Bureau of Mining Programs’ ‘Cost Calculation Comparison for Existing and Replacement Supplies” (Document Number 5600-FM-BMP0451) as guidance for calculating increased operation and maintenance costs.”*

The MSC recommends the DEP insert this language under item h. The Industry and DEP must be given some standard guidance on how to calculate operation and maintenance costs. The MSC supports the DEP applying consistent parameters across other industries with similar complaints within the Commonwealth. It is appropriate to use the existing and established Mining Program TGD for water supply replacement.

37. Page 5 Procedures D Item h: The time frame of replacement costs should be limited to a certain time frame such as 15-20 years or the anticipated life of the replacement equipment; unlimited operation and maintenance costs are unreasonable and not used in other DEP programs.

38. Page 5 Procedures D Item h: The MSC recommends that the word “*permanent*” be deleted. The operator should have the opportunity to offer a one-time payment based on the needs of the system to the landowner to cover associated operation and maintenance costs. This should be considered a “*permanent payment*”.

39. Page 5 Procedures D Item i: The MSC requests the following revisions to this item to protect operators when a water supply owner continues to ask for additional treatment measures.

*“When an impacted water supply is permanently replaced with a public water supply regulated by the Department’s Safe Drinking Water Program and provisions for the permanent payment of the increased operating and maintenance costs are made to the affected parties, but the property owner does not wish to be provided with any additional treatment measures to water from the public water supply when potentially eligible for such additional treatment, the Department will consider the remedy as having met the Department’s requirement for the responsible operator to permanently restore or replace the affected supply.”*

40. Page 6 Procedures E Item 1: The MSC recommends the following revisions to be consistent with 78a.51(e):

*“Effectiveness – The ability of the remedial response to mitigate the impacts from the site specific contaminants affected by oil or gas operations. Restoration or replacement plans for water supplies used for human consumption must provide responses that meet Pennsylvania Safe Drinking Water Act standards or better. See 25 Pa. Code § 78a.51(d)(2). Restoration or replacement plans for water supplies used for other than human consumption must provide responses that are adequate for the purposes served”*

by the supply. See 25 Pa. Code § 78a.51(e).”

41. Page 7 Procedures F Item 2.a: The term “*post-drilling*” is not defined in the Act, regulation, or the Policy and needs to be defined or clarified with respect to the purpose of this section. Confirmation of whether the water supply has been restored properly will be a comparison to the applicable standards or background water quality guidance summarized in Paragraphs 2.a.(i) through (vi). It is unclear what “*post-drilling*” analytical results are referring to. Furthermore, if the term remains, it should be changed since water quality impacts could occur prior to drilling (pad construction). The MSC recommends revising this term to be “*post treatment*”.
42. Page 7 Procedures F Item 2.a: The MSC recommends removing the words “*quality and/or quantity*” from the first sentence as it is redundant.
43. Page 7 Procedures F Item 2.a: The MSC requests that the DEP consider including a subparagraph after (iii), specific to methane. Methane does not have a primary or secondary drinking water standard established under the Pennsylvania Safe Drinking Water Act, and it has been established that current treatment options will result in about an 80% maximum reduction in the concentration. Assuming an impact of a water supply where pre-drill results indicate Methane was at a relatively low concentration (less than 1 mg/l) or not detected, the post treatment methane concentration may not be “comparable” to the pre-impact water quality as stated in current subparagraph (iii). It is recommended that a standalone paragraph address methane using language that references DEP’s action level of 7 mg/l or that it may be addressed by DEP on a case by case basis.
44. Page 7 Procedures F Item 2.a.iv: The statement “*or be better than*” should be deleted. If the parameter was unknown, then we are only required to treat to Pennsylvania Safe Drinking Water Act MCLs in accordance with the statute and regulations.
45. Page 8 Procedures F Item 2.a.vi: The MSC recommends that the DEP list or reference the “*acceptable standards, determined by the Department*” for restored water supplies.
46. Page 8 Procedures F Item 2.b Paragraph 1: The second half of the sentence of this item should be deleted. Per 78a.51(d)(2), an operator is only required to meet the Pennsylvania Safe Drinking Water Act standards. The MSC recommends the item be revised as follows:
 

*“The sample plan needs to demonstrate that the remedial actions for the water quality parameter(s) determined to be impacted by oil and gas operations meet, at a minimum, the drinking water MCL standards found in the Pennsylvania Safe Drinking Water Act, if any.”*
47. Page 8 Procedures F Item 2.b. Paragraph 2: The MSC recommends that this paragraph be revised as follows:

**“For restored water supplies utilizing a treatment system or if multiple treatment systems are employed serially, one post treatment water sample should be collected to ensure the effectiveness of the entire treatment system(s) as a whole.”**

48. Page 8 Procedures F Item 2.b Paragraph 3: In accordance with 78a.51(d)(2), the DEP does not have an open-ended ability to require operators to test for any water quality parameter; these are limited by the Act and current regulations. The MSC recommends the following revisions to paragraph 3:

**“The Department may request that the operator collect samples to analyze for parameters found in Appendix B of this document, as determined by the Department, to identify possible presence of parameters of concern. If any parameters are identified from Appendix B, the operator will be required to sample to confirm the adequacy of restoration for a period of no longer than one year.”**

49. Page 9 Procedures F Item 3.a: The reference to the Appendix should be B, not A.
50. Page 9 Procedures F Item 3.c: The MSC recommends the following revisions to this item:

*“When polluted water well(s) are being abandoned, properly abandon the impacted groundwater supply in accordance with Act 610 of 1955, the Water Well Drillers License Act. Guidance on water well abandonment procedures can be found in the Department’s document titled, “Groundwater Monitoring Guidance Manual” (Document number 383-3000-001).”*

51. Page 9 Procedures F Item 3.d Paragraph 1: The second half of the last sentence of this item should be deleted. Per 78a.51(d)(2) an operator is only required to meet the Pennsylvania Safe Drinking Water Act standards. The MSC recommends the item be revised as follows:

*“Include a sample plan in the PWS plan to demonstrate that the new water source meets all primary and secondary MCL standards established under the Pennsylvania Safe Drinking Water Act.”*

52. Page 9 Procedures F Item 3.d Paragraph 3: The DEP may consider providing additional details on how many rounds of sampling the Department requires to confirm the adequacy of the new water source should be included. The MSC recommends an initial sampling round and one confirmation sample.
53. Page 10 Procedures F Item 3.e Paragraph 1: If the replacement well that produces greater than 10,000 gallons per day on average is not used for drinking water purposes, there are currently no guidelines under Pennsylvania regulation (other than Act 220 for reporting) to mandate the well construction or well replacement to be completed in accordance with public water supply standards. The MSC recommends that DEP make this clarification in the Policy.

54. Page 10 Procedures F Item 3.e Paragraph 1: The MSC recommends this paragraph be revised as follows:

*“Additional measures are to be taken when proposing water well(s) as a remedy for water replacement, where the total withdrawal or withdrawal from one or more points of withdrawal within a watershed operated as a system either concurrently or sequentially exceeds an average rate of 10,000 gallons a day in a 30-day period.”*

Additionally, it is not clear if pages 10-12 are only intended to apply in situations where the withdrawal exceeds the 10,000 gallons a day in a 30-day period, as this paragraph appears to imply, or if pages 10-12 of the Policy would apply if the withdrawal is less than 10,000 gallons a day in a 30-day period. The MSC recommends that the DEP provided additional clarification regarding how the 10,000 gallons per day is to be applied within the Policy. Alternatively, it may be appropriate to move this information to F.3.e.(v) on page 11.

55. Page 10 Procedures F Item 3.e Paragraph 2: The MSC recommends the following revisions to this paragraph for clarity:

*“For helpful information related to water well construction, refer to the Hydrogeologic Report requirements in the “PUBLIC WATER SUPPLY MANUAL” (Document number 383-2125-108); the “AQUIFER TESTING GUIDANCE FOR PUBLIC WATER SYSTEMS” (Document Number 394-2125-001; and the well abandonment procedures of the “GROUNDWATER MONITORING GUIDANCE MANUAL” (Document number 383-3000-001).”*

56. Page 10 Procedures F Item 3.e.i Paragraph 3: Regarding potential impacts to special protection waters, it is possible for a withdrawal to exist within these watersheds. If there was potential to impact due to existing withdrawals, it does not seem appropriate to require the operator to address these potential issues when developing a new withdrawal, especially when the existing water user did not identify potential impacts and prepare a plan prior to oil/gas activities. The MSC recommends that the DEP provide additional clarification with respect to existing water withdrawals in special protection watersheds.

57. Page 11 Procedures F Item 3.e.iii Paragraph 1: The MSC recommends the time for the Department Professional Geologist should be listed in business days and that time should be 15 business days and not 30 days. In addition, the MSC recommends that the last sentence in this paragraph be moved to the middle of the paragraph, as shown below:

*After the site survey is conducted, the professional geologist should prepare and submit a well drilling plan to the appropriate Oil and Gas District Office. See Appendix A. The plan should establish a preliminary hydrogeologic understanding of the project site, a monitoring plan for aquifer testing (quality and quantity) and the proposed well construction design of the water well(s). Well drilling should not commence until the well drilling plan is reviewed by a Department Professional Geologist. The Department*

**Professional Geologist will review the plan within 15 business days of its submission to the Department.** For existing wells being proposed as a source of replacement water supply, a plan should still be submitted to the Department establishing a preliminary hydrogeologic understanding of the project site, a monitoring plan for aquifer testing (quality and quantity) and any available information on the existing water well(s), such as well driller logs and field tests.

58. Page 11 Procedures F Item 3.e.iii Paragraph 3: Within regulation and guidance, the Department has stated that drilling activities do not constitute earth disturbance. Operators are not required to maintain E&S permit coverage for stabilized sites. Why would water wells require E&S controls when the act of well drilling is not considered earth disturbance? The MSC recommends deleting this paragraph.
59. Page 12 Procedures F Item 3.e.v: In the last sentence “aquifer” is spelled incorrectly, “aquafer.”
60. Page 12 Procedures F Item 3.f.ii: The MSC recommends that “*capital costs and long term cost*” should be limited to the 20-year lifespan of a typical domestic water well. The Department should not interfere in the negotiations an operator conducts with a water supply owner to settle potential cost increases.
61. Page 12 Procedures F Item 3.f.iv Paragraph 1: The MSC recommends the following revisions:
- “Include a sample plan **with** sampling requirements **based** on the public water system’s classification as follows:”*
62. Page 13 Procedures F Item 3.f.iv Last Paragraph: In the first sentence the comma should be removed between the words “*water supply*” and “*post treatment.*”
63. Page 13 Procedures F Item 3.f.iv Last Paragraph: This second sentence states, “*Any other water quality parameter(s) deemed a concern by the Department for which the treatment system is targeting.*” In accordance with 78a.51(d)(2) the DEP does not have an open-ended ability to require operators to test for any water quality parameter; these are limited by the Act and current regulations. The MSC recommends the following revisions to the second sentence of this paragraph:
- “Any **other** water quality **parameter(s) found in Appendix B of this document, if appropriate, deemed a concern by the Department for which the treatment system is targeting.**”*
64. Page 13 Procedures G Paragraph 2: Who does the Department considered to be “*properly trained?*” There are not current certifications or licenses to collect these samples. The MSC recommends the following revisions:

*“Additionally, all samples to be submitted to a laboratory for volatile organic chemical (VOC) analysis should be collected by a person experienced in appropriate methods of collecting such samples.”*

65. Page 15 Appendix B: The MSC requests clarification from the DEP on whether this will be the “new” list for which the Department will sample when a complaint is filed.
66. Page 15 Appendix B: The MSC disagrees with the use of Appendix B as a list of water quality standards that a private well is required to meet, even if it is a new water source. The list of parameters is from the Pennsylvania Safe Drinking Water Act; however, an operator is most often replacing or restoring private water supplies that are not regulated to the same degree as public water supplies. If a supply is serving less than 25 people, then these parameters should not have to be sampled. A private water supply should only need to meet standards that are comparable to the original source. The parameter lists are too broad for the types of contamination that are associated with E&P activities, e.g. pesticides, etc.
67. Page 15 Appendix B: The MSC recommends that the list include dissolved gases, e.g. methane, since they are naturally occurring and most often the underlying reason for a new water supply.
68. Page 15 Appendix B Paragraph 1: The last sentence states, “The Department may require monitoring of any other contaminant(s) as determined necessary to adequately evaluate the quality of the replaced/restored water supply.” As stated previously, the DEP is not authorized to require operators to test for “any” additional contaminant other than those listed in Appendix B, in accordance with 78a.51(d)(2). The MSC recommends revising this sentence as follows:
- “The Department may require monitoring of any other contaminant(s) listed in Appendix B, if appropriate, as determined necessary to adequately evaluate the quality of the replaced/restored water supply.”*
69. Page 15 Appendix B Volatile Organic Chemicals: Apart from BTEX, the list contains chemicals that are not associated with oil and gas operations. Pennsylvania Chapter 245 contains a short list of VOCs that would be more appropriate to use for VOC testing requirements. The MSC recommends the DEP utilize this list, and operators should only be required to be sampled for on a case-by-case basis.
70. Page 15 Appendix B Synthetic Organic Chemicals: The MSC recommends that this list should be eliminated from the sampling program. These chemicals primarily are pesticides that are not utilized in oil and gas operations.
71. Page 15 Appendix B Inorganic Chemicals: The MSC recommends that the following chemicals be removed, as they are not utilized in oil and gas operations: Antimony, asbestos, beryllium, cadmium, cyanide, fluoride, lead, mercury, nitrate, nitrite, and selenium thallium.

72. Page 16 Appendix B Microbiological Contaminants: The standard is incorrect for this list. There is no current requirement for 3 samples for total coliform concentration testing; One sample for presence/absence should be all that is required. In accordance with the Act and regulations, operators are not required to complete a “*constant rate aquifer test*” and the coliform sampling is only required for proposing to connect to a public water supply as a restoration method.
73. Page 16 Appendix B Secondary Contaminants and others: The MSC recommends that the following chemicals be removed as they are not utilized in oil and gas operations: aluminum, silver, and zinc.
74. Page 16 Appendix B Microscopic Particulate (MPA): This information is being referenced from the Surface Water Identification Protocol Guidance, and should not be included in a Policy for Replacement or Restoration of a Private Water Supply. The MSC recommends deleting this section.
75. Page 16 Appendix B Other Contaminants: As stated several times before, under the Act and regulation the DEP does not have an open-ended ability to require operators to test for any water quality parameter. The MSC recommends deleting this section.

The MSC appreciates the opportunity to comment, and we remain committed to working with the DEP on this and other items as they arise.

Sincerely,



Jim Welty  
Vice President Government Affairs