

# Hearing Summary

Rule Package: Water Well Standards

Original filing date: 4/20/2022

Public comment start date: 4/20/2022

Public comment end date: 5/23/2022

Public hearing date: 5/23/2022

List of Rules: 3745-9-01, 3745-9-02, 3745-9-03, 3745-9-04, 3745-9-05, 3745-09-06, 3745-9-07, 3745-9-08, 3745-9-09, 3745-9-10

Were there any participants in this public hearing beyond Ohio EPA staff or JCARR staff?

☒ Yes

☐ No

Were there comments received during the public comment period outside of those presented at this hearing?

☒ Yes

☐ No

---

This hearing summary has been compiled to meet the requirements of Section 119.03 of the Revised Code.

This hearing summary includes this cover sheet and the following attachments:

1. **Attachment A** - A copy of the public notice for this hearing.
2. **Attachment B** - A copy of the sign-in sheet for this hearing.
3. **Attachment C** - A copy of the script read into the record to begin and end the hearing.
4. **Attachment D** - A copy of the response to comments.

Ohio EPA's response to comments document includes the comments received, who commented, the agency response to comments, and a statement of whether or not the rule was changed due to the comments.

---

Ohio EPA digitally records all public hearings for rules. The digital recordings are available upon request. These recordings may be sent out for transcription if necessary.



**BEFORE THE  
OHIO ENVIRONMENTAL PROTECTION AGENCY**

**4/20/22**

**Public Notice: Proposed Rulemaking: Water Well Standards**

Notice is hereby given that the Ohio Environmental Protection Agency, Division of Drinking and Ground Waters (DDAGW) proposed revisions to Water Well Standards in Chapter 3745-9 of the Ohio Administrative Code. DDAGW has reviewed the Water Well Standards to satisfy the five-year rule review requirements of section 106.03 and 106.031 of the Ohio Revised Code, OAC Chapter 3745-9.

Proposed revisions to OAC Rules 3745-9-01, 3745-9-02, 3745-9-03, 3745-9-04, 3745-9-05, 3745-9-06, 3745-9-07, 3745-9-08, 3745-9-09, 3745-9-10 include the following:

- Modifying definitions and updating references in rule 3745-9-01.
- Clarifying language to define how variances will be submitted and reviewed and to provide for a date on well cap construction/specification for public water system wells in rule 3745-9-02.
- General clarifying language for siting non-potable wells in rule 3745-9-04.
- Adding language to require specific well construction material and to provide dates for certain well construction requirements in rule 3745-9-05.
- Clarifying language on the use of grout for sealing wells in rule 3745-9-07.
- Clarifying language on when disinfection of a well should occur and how/when a well can be placed into service following disinfection in rule 3745-9-08.
- Modifying language to determine specific capacity, for conducting well pump testing, and establishing additional radiological sampling criteria for new community and noncommunity non-transient wells in rule 3745-9-09.
- Additions made to the appendices within rule 3745-9-09 call for the required analyses of six Per- and polyfluoroalkyl Substances (PFAS) chemicals within wells by community water systems and noncommunity non-transient water systems. These requirements align with the action levels established for the six PFAS chemicals addressed under the Ohio Per- and Polyfluoroalkyl Substances (PFAS) State Action Plan for Drinking Water.
- Clarifying the use of concrete as an acceptable grout in certain applications in rule 3745-9-10.

The public comment period will run until May 23<sup>rd</sup>, 2022. A public hearing on this proposed rulemaking will be held to consider public comments in accordance with Section 119.03 of the Ohio Revised Code. Ohio EPA will be holding a virtual public hearing on the rules on May 23<sup>rd</sup>, 2022, at 10:30 AM. During the hearing, the public may submit written comments on the record about the proposed rules or participate virtually.

Citizens who want to participate virtually must register in advance for the meeting at <https://attendee.gotowebinar.com/register/7163049297116600333>

Comments can be submitted by email to [ddagw\\_rulecomments@epa.ohio.gov](mailto:ddagw_rulecomments@epa.ohio.gov). Comments should be received at the above address by close of business, May 23<sup>rd</sup>, 2022.

In order to ensure that written comments are considered as part of the official record of this hearing, written comments must be received by Ohio EPA by the close of business May 23<sup>rd</sup>, 2022. Written comments on the proposed rules may be given to the presiding officer during the hearing, sent by mail to Zach Winoker at the address above, or sent by email to the following address: [ddagw\\_rulecomments@epa.ohio.gov](mailto:ddagw_rulecomments@epa.ohio.gov).

To obtain a copy of the proposed rules, contact Zach Winoker at Ohio EPA at (614) 644-3387 or email at [Zachary.Winoker@epa.ohio.gov](mailto:Zachary.Winoker@epa.ohio.gov). Please request the "Water Well Standards" and be sure to include your name, telephone number, and complete mailing address. There are amendments to the proposed rules. These rules and associated documents are available on DDAGW's Web page for electronic downloading here: <https://epa.ohio.gov/wps/portal/gov/epa/divisions-and-offices/drinking-and-ground-waters/regulations/proposed-rules>

Comments can be submitted in hard copy to the following address: "Ohio Environmental Protection Agency, DDAGW, P.O. Box 1049, Lazarus Government Center, Columbus, Ohio 43216-1049, Attn: Zach Winoker" or by email to [ddagw\\_rulecomments@epa.ohio.gov](mailto:ddagw_rulecomments@epa.ohio.gov). Comments should be received at the above address by close of business, May 23<sup>rd</sup>, 2022.

## Attendee Report: Public Hearing: Well Standards Proposed Rules Division of Drinking & Ground Waters (Statewide)

Report Generated:

06/02/2022 12:08 AM EDT

Webinar ID

590-460-355

Actual Start Date/Time

05/23/2022 10:18 AM EDT

Duration

43 minutes

# Registered

6

# Attended

4

Clicked Registration Link

14

Opened Invitation

0

### Attendee Details

Attended	Interest Rating	Last Name	First Name	Email Address	Registration Date/Time	Join Time - Leave Time (Time in Session)	Time in Session	Organization
Yes	95	Hunter	Doug	doug_hunter@coxcolvin.com	04/21/2022 10:20 AM EDT	05/23/2022 10:29 AM EDT - 05/23/2022 10:48 AM EDT (20 minutes)	20 minutes	Cox-Colvin & Associates, Inc.
Yes	96	Kneisel	Brittney	brittney.kneisel@jcarr.state.oh.us	05/23/2022 08:15 AM EDT	05/23/2022 10:29 AM EDT - 05/23/2022 10:45 AM EDT (16 minutes), 05/23/2022 10:29 AM EDT - 05/23/2022 10:29 AM EDT (0), 05/23/2022 10:30 AM EDT - 05/23/2022 10:30 AM EDT (1 minute), 05/23/2022 10:49 AM EDT - 05/23/2022 11:00 AM EDT (12 minutes)	28 minutes	JCARR
Yes	97	Lane	Rylee	Rylee.Lane@epa.ohio.gov	04/20/2022 07:34 AM EDT	05/23/2022 10:30 AM EDT - 05/23/2022 11:00 AM EDT (31 minutes)	31 minutes	
Yes	97	Winoker	Zachary	zachary.winoker@epa.ohio.gov	04/20/2022 07:13 AM EDT	05/23/2022 10:29 AM EDT - 05/23/2022 11:00 AM EDT (32 minutes)	32 minutes	Ohio EPA
No	0	Rector	Don	drector@pickerington.net	04/28/2022 01:32 PM EDT	--	--	City of Pickerington
No	0	Rex	Mike	mike@masilabs.com	04/21/2022 09:37 AM EDT	--	--	MASI Environmental Laboratories

## **DDAGW Well Water Standards Proposed Rules**

May 23, 2022

Hello and welcome to Ohio EPA's public hearing regarding Division of Drinking and Ground Water's proposed rules. My name is Mary McCarron and I'm hosting today's public hearing. With me today from Ohio EPA's Division of Drinking and Ground Waters is Zach Winoker and our Rules Manager Mandi Payton. In a moment, we will move to the public hearing where we will take official comments on the proposed rules.

For those attending, you may submit any comments you have about the proposed rules in the Questions pane at any time.

We will not be responding to any comments submitted during the public hearing today. I will read aloud any comments we receive in the GoTo platform.

Before we get started, I'd like to go over a few items to help our attendees navigate the GoTo platform.

On this slide here you will see an example screenshot of your Attendee interface. You should see something that looks like this on your computer desktop on the right-hand side of your screen. For this public hearing you are listening in using your computer audio. If you are having sound issues or if the slides stop advancing, try refreshing your browser. If that doesn't work, try logging off and logging back in.

Please submit public comments by clicking on the question mark icon and typing them into the Questions pane on your attendee interface. You may send your comments in at any time. All comments submitted will be read aloud for the whole audience to hear.

You can also click on the document icon to view included handouts.

We will now begin the hearing.

**PUBLIC HEARING SPEECH**

Thank you for taking time to attend this hearing before Ohio EPA. The purpose of the hearing today is to obtain comments from any interested person regarding Ohio EPA's proposed rules.

Ohio EPA Division of Drinking and Ground Waters proposed revisions to Water Well Standards in Chapter 3745-9 of the Ohio Administrative Code. DDAGW has reviewed the Water Well Standards to satisfy the five-year rule review requirements of section 106.03 and 106.031 of the Ohio Revised Code, OAC Chapter 3745-9.

Proposed revisions to OAC Rules 3745-9-01, 3745-9-02, 3745-9-03, 3745-9-04, 3745-9-05, 3745-9-06, 3745-9-07, 3745-9-08, 3745-9-09, 3745-9-10 include the following:

- Modifying definitions and updating references in rule 3745-9-01.
- Clarifying language to define how variances will be submitted and reviewed and to provide for a date on well cap construction/specification for public water system wells in rule 3745-9-02.
- General clarifying language for siting non-potable wells in rule 3745-9-04.
- Adding language to require specific well construction material and to provide dates for certain well construction requirements in rule 3745-9-05.
- Clarifying language on the use of grout for sealing wells in rule 3745-9-07.
- Clarifying language on when disinfection of a well should occur and how/when a well can be placed into service following disinfection in rule 3745-9-08.
- Modifying language to determine specific capacity, for conducting well pump testing, and establishing additional radiological sampling criteria for new community and noncommunity nontransient wells in rule 3745-9-09.
- Additions made to the appendices within rule 3745-9-09 call for the required analyses of six Perand polyfluoroalkyl Substances (PFAS) chemicals within wells by community water systems and noncommunity non-transient water systems. These requirements align with the action levels established for the six PFAS

chemicals addressed under the Ohio Per- and Polyfluoroalkyl Substances (PFAS) State Action Plan for Drinking Water.

- Clarifying the use of concrete as an acceptable grout in certain applications in rule 3745-9-10.

These rules have been filed with the Joint Committee on Agency Rule Review. Copies of the rules are available for public review on our website and in the handouts section in GoTo.

All interested persons are entitled to attend or be represented, and to present written comments concerning the proposed rules. All written comments received as part of the official record will be considered by the director of Ohio EPA.

To be included in the official record, written comments must be received by Ohio EPA by the close of business, today, May 23, 2022. These comments may be typed into the GoTo platform today or emailed to [ddagw\\_rulecomments@epa.ohio.gov](mailto:ddagw_rulecomments@epa.ohio.gov). All emailed comments submitted for the record receive the same consideration as typed comments given today.

Written statements submitted after today may be considered as time and circumstances permit but will not be part of the official record of the hearing.

This hearing affords citizens an opportunity to provide input. Therefore, we will not be able to answer questions today.

**YOU MAY NOW SUBMIT COMMENTS IN WRITING. I will read aloud any comments we receive in the Questions pane. I will keep the chat open until 11:00 a.m. to provide time for participants to type in comments.**

### **CLOSING**

After the hearing closes, we will accept written comments through 5:00 p.m. today. You can send those comments to the email address on the screen.

Thank you for your comments, cooperation, and participation in Ohio EPA's decision-making process. The time is now \_\_\_\_\_ and this hearing is concluded.



## Division of Drinking and Ground Waters Response to Comments

### **Proposed Water Well Standards**

- 3745-9-01 – Well Standard Definitions
- 3745-9-02 – Scope and Exemptions
- 3745-9-03 – Monitoring Well
- 3745-9-04 – Well Siting
- 3745-9-05 – Well Construction
- 3745-9-06 – Well Construction, Specific Geologic Conditions
- 3745-9-07 – Well Grouting for Construction or Sealing
- 3745-9-08 – Well Disinfection
- 3745-9-09 – Well Development and Pumping Test
- 3745-9-10 – Abandoned Well Sealing

### **Agency Contact for this Package**

[Zach Winoker], Division of Drinking and Ground Waters (DDAGW)  
(614) 644-2752, [Zachary.Winoker@epa.ohio.gov](mailto:Zachary.Winoker@epa.ohio.gov)

Ohio EPA issued public notice and requested comments for the period of April 20<sup>th</sup>, 2022 to May 23<sup>th</sup>, 2022 on proposed rules in the Ohio Administrative Code (OAC). This document summarizes the comments and questions received during the comment period.

Ohio EPA reviewed and considered all comments received during the comment period. By law, Ohio EPA has authority to consider specific issues related to protection of the environment and public health.

In an effort to help you review this document, the questions are grouped by topic and organized in a consistent format. The name of the commenter follows the comment in parentheses.

### **General Comments**

**Comment 1:** It is unclear why the word “shall” is being largely removed from the rule language. Simply striking the word “shall” results in many awkward/incorrect sentences. In addition, the rule changes are inconsistent with regard to removal of “shall”. **(Steve Champa, Mike Gibson and Chris Cobel, Eagon & Associates, Inc.)**

**Response 1:** Several ‘shalls’ have been removed from the proposed Water Well Standards to comply with R.C.121.95, paragraph (F).



### **3745-9-01, Well Standard Definitions**

**Comment 2:** “D(6) – Suggest changing term to “Dug Well” – a “dug hole” does not necessarily imply a well in common terminology as used in the definition of a radial collector well in R(1) and consistent with definition of a well in W(1)”. **(Steve Champa, Mike Gibson and Chris Cobel, Eagon & Associates, Inc.)**

**Response 2:** Ohio EPA agrees and has made the edit to the corresponding proposed Water Well Standard.

**Comment 3:** [“L(2) – We are not aware of “manufacturing waste landfill” being a landfill classification. Manufacturing waste landfill is not defined in 3745-27-01. Manufacturing waste is defined in 3745-30-01 as part of “Industrial or manufacturing waste”, but not as a landfill type. The term residual waste landfill should be maintained in the rule, unless it is the intent to remove residual waste landfills from the definition for the purposes of the public water supply rules.”] **(Steve Champa, Mike Gibson and Chris Cobel, Eagon & Associates, Inc.)**

**Response 3:** Ohio EPA agrees and has made the edit to the corresponding proposed Water Well Standard.

**Comment 4:** “S(1)(e) – Recommend “...or permanently discontinuing (abandoning – correct typo in draft rule text) use of a well. **(Steve Champa, Mike Gibson and Chris Cobel, Eagon & Associates, Inc.)**

**Response 4:** Typo has been corrected.

**Comment 5:** “AA(1)(e) – Change to “American Welding Society” instead of “Americal [sic] Welding Association” **(Steve Champa, Mike Gibson and Chris Cobel, Eagon & Associates, Inc.)**

**Response 5:** Ohio EPA agrees and has made the edit to the corresponding proposed Water Well Standard.

### **3745-9-02, Scope and Exemptions**

**Comment 6:** “H(5) Suggest revising text to refer only to **new** public water system wells? Unless the expectation is that all wells will need to comply with this standard regardless of age?” **(Steve Champa, Mike Gibson and Chris Cobel, Eagon & Associates, Inc.)**

**Response 6:** The expectation is for all public water system wells to comply with this Water Well standard by January 1, 2024.

### **3745-9-04, Well Siting**

**Comment 7:** As a general comment regarding sanitary isolation radius requirements – the requirement for a sanitary isolation radius based solely on pumping rate ignores the natural protectiveness that is provided by clay/glacial till materials that overly the aquifers in many parts of Ohio. Credit should be given to that protective barrier where it exists in the determination of a sanitary isolation radius. A potential formulation would

be to specify that for public water supply wells that are rated to produce more than 100,000 gallons per day the sanitary isolation radius shall be 300 feet minus the thickness of clay/low permeability materials overlying the aquifer, but shall not be less than 100 feet. For example, a bedrock well in northwest Ohio with 100 feet of clay/glacial till over bedrock would have a minimum, horizontal sanitary isolation radius of 200 feet. In Indiana the default sanitary isolation radius is 200 feet and a radius of 100 feet is allowable for wells that are subject to automatic disinfection. The use of a more flexible method for determination of the sanitary isolation radius that acknowledges that all hydrogeologic settings are not equally susceptible would allow for a substantial cost savings for communities locating wells in areas where the susceptibility to contamination from surface activities is low. Property owners may also be more willing to sell or lease parcels for well sites if the areal demands were not as great as is currently required. **(Steve Champa, Mike Gibson and Chris Cobel, Eagon & Associates, Inc.)**

**Response 7:** Sanitary isolation radii requirements will be re-examined for potential revisions during the next 5-year review cycle.

#### **3745-9-05, Well Construction**

**Comment 8:** A(2) WE recommend that the rule language be changed to instead say that a well should be constructed using similar metallic parts in order to minimize the potential for galvanic corrosion. Also note that part B(6)(h) has not been modified and reads "Screens shall be installed that minimize corrosion caused by contact with dissimilar steel casing." **(Steve Champa, Mike Gibson and Chris Cobel, Eagon & Associates, Inc.)**

**Response 8:** Ohio EPA has incorporated the suggested language into the corresponding proposed Water Well Standard.

**Comment 9:** A(3) Consider revising to read: "All drilling mud, additives and lubricants used in construction have either standard ANSI/NSF 60 or 61 certification and not contain guar gum, or other such biodegradable organic material." **(Steve Champa, Mike Gibson and Chris Cobel, Eagon & Associates, Inc.)**

**Response 9:** Ohio EPA has incorporated the suggested language into the corresponding proposed Water Well Standard.

**Comment 10:** A(4) The proposed rule language should be changed to indicate that the water used in drilling a well may be treated for drilling purposes in accordance with the drilling mud manufacturers recommendations... The rule should also allow for use of groundwater in drilling a well as long as groundwater quality will not adversely affect the properties any grout or drilling mud used. It is a common practice to use groundwater from an adjacent test or observation well completed in the same aquifer as drilling water. **(Steve Champa, Mike Gibson and Chris Cobel, Eagon & Associates, Inc.)**

**Response 10:** Ohio EPA disagrees. The current Water Well Standard provides a safeguard for the quality of the water used during the well drilling process. The quality of ground water from an adjacent well completed in the same aquifer cannot be verified without analysis.

**Comment 11:** A(5)(b)(vii)(a) Suggested changes “Well couplings with a design, taper, and type of thread that is consistent with the thread of the pipe will have no more than three threads exposed on fourteen thread pipe and no more than two threads exposed on eight thread pipe. Threaded pipe and couplings shall meet one of these standards: ASTM A53/A53M-01A53, ASTM A589-96A589, or “API RP 5B1, Gauging and Inspection of Casing, Tubing, and Line Pipe Threads,” fifth edition, August 1999, Product Number G05B15, Document Number API RP 5B1. **(Steve Champa, Mike Gibson and Chris Cobel, Eagon & Associates, Inc.)**

**Response 11:** Ohio EPA agrees and has incorporated the suggested language into the corresponding proposed Water Well Standard.

**Comment 12:** A(6) Reject change or reword. The sentence as altered does not make sense. Consider striking "Not be defective" **(Steve Champa, Mike Gibson and Chris Cobel, Eagon & Associates, Inc.)**

**Response 12:** The ‘shall’ has been removed to comply with R.C.121.95, paragraph (F).

**Comment 13:** A(13)(b) Suggested rewording - The well cap or seal shall fit securely to the top of the well casing, and be secured... **(Steve Champa, Mike Gibson and Chris Cobel, Eagon & Associates, Inc.)**

**Response 13:** Ohio EPA agrees and has incorporated the suggested language into the corresponding proposed Water Well Standard.

**Comment 14:** B(4) & (5)– Plumbness and alignment testing should not be mandatory. Exceedance of the plumbness and alignment criteria do necessarily make a well unusable. The need for plumbness and alignment testing should be decided by the well owner. **(Steve Champa, Mike Gibson and Chris Cobel, Eagon & Associates, Inc.)**

**Response 14:** Ohio EPA disagrees. AWWA A100 is referenced in this Water Well standard.

**Comment 15:** B(11) Approval for a well cap should be made at the District level and should not require Director’s approval. **(Steve Champa, Mike Gibson and Chris Cobel, Eagon & Associates, Inc.)**

**Response 15:** Ohio EPA disagrees. A component of the well approval process is to verify that construction requirements are met to ensure the quality of water for consumption by the public.

**Comment 16:** C(3) “Lateral collectors shall be in areas and at depths accepted by the director.” – Does this mean that the lateral depths, lengths and orientations require prior approval? **(Steve Champa, Mike Gibson and Chris Cobel, Eagon & Associates, Inc.)**

**Response 16:** Yes, as part of the well site approval process.

**Comment 17:** C(4) Edit to read as follows: "Provisions shall be made to assure that a collectors well's laterals are essentially approximately horizontal. **(Steve Champa, Mike Gibson and Chris Cobel, Eagon & Associates, Inc.)**

**Response 17:** Ohio EPA agrees and has incorporated the suggested language into the corresponding proposed Water Well Standard.

**3745-9-06, Well Construction, specific geologic conditions**

**Comment 18:** A(4)(d)(ii) Suggested change - Installation of a vermin proof cap, well pitless adapter or wire spud, or to a discharge to a point that complies with paragraph (A)(4)(e) of this rule. **(Steve Champa, Mike Gibson and Chris Cobel, Eagon & Associates, Inc.)**

**Response 18:** Ohio EPA agrees and has incorporated the suggested language into the corresponding proposed Water Well Standard.

**Comment 19:** A(4)(e)(ii) –What is the basis for this addition? It is hard to understand how control of flow could cause sand production or turbidity in a properly constructed and developed well. **(Steve Champa, Mike Gibson and Chris Cobel, Eagon & Associates, Inc.)**

**Response 19:** Proposed Water Well Standard language is derived from Ohio Department of Health private well rules. There could be situations where a well might not have a properly sized screen and the turbidity issues could arise.

**3745-9-07, Well grouting for construction or sealing**

**Comment 20:** B(1) – Untreated groundwater should also be allowed for mixing of cement grout as long as groundwater chemistry is not expected to interfere with grout installation or effectiveness. Also see comment on 3745-9-05(A)(4). **(Steve Champa, Mike Gibson and Chris Cobel, Eagon & Associates, Inc.)**

**Response 20:** Ohio EPA disagrees. The current Water Well Standard provides a safeguard for the quality of the water used during the well drilling process.

**Comment 21:** C(6) – The requirement for Director’s prior approval for use of the dry driven grout method should be removed from the rule. The dry driven grout method is not an exotic method, has been employed in cable tool drilling for many years and has proven to be effective in safely sealing wells. **(Steve Champa, Mike Gibson and Chris Cobel, Eagon & Associates, Inc.)**

**Response 21:** Ohio EPA agrees and has incorporated the suggested language into the corresponding proposed Water Well Standard.

**3745-9-09, Well development and pumping test**

**Comment 22:** B(4)(b)(i)(b) – The rule requirement should be revised to read "range of steps shall be performed at meet or exceed the anticipated permanent design pumping rate." The design pumping rate for a well is not determined until the well has been fully tested and evaluated. The specification that a step be performed at the design pumping rate is unnecessary and unrealistically presumptive. **(Steve Champa, Mike Gibson and Chris Cobel, Eagon & Associates, Inc.)**

**Response 22:** Ohio EPA agrees with the Commenter that the actual design pumping rate is not determined until after the well is fully tested and evaluated. However, prior to initiating the pumping tests, the system typically has an idea of what the anticipated design pumping rate will be. The reason for the rule is to understand the specific capacity at the anticipated design pumping rate, not the actual design pumping rate. As such, no change to the proposed Water Well Standard will be made. One goal of the step test is to fine-tune a pumping rate in an efficient and timely manner.

**Comment 23:** B(6)(a)(vii) – This rule should be removed. B(6)(a)(vi) already requires reporting the specific capacity determined at the pumping rates used for testing of the well. Stabilization of drawdown is not defined and should be removed from the rule. The specific capacity of a well is time-dependent, i.e., drawdown increases with duration of pumping. Only in situations where a well is pumped in close proximity to a significant source of recharge will drawdown stabilize in a relatively short period of time (less than 24-hours). Reporting of specific capacity should include both pumping rate and duration of pumping. **(Steve Champa, Mike Gibson and Chris Cobel, Eagon & Associates, Inc.)**

**Response 23:** Water Well Standard 3745-9-09(B)(6)(a)(vii) was revised as follows:

For high use wells only, The ~~the~~ specific capacity of the well at the anticipated permanent design pumping rate ~~when after~~ drawdown ~~is~~ has stabilized.

The only significant change in the proposed standard above is the calculation for the specific capacity at the anticipated permanent design pumping rate will be limited to high use wells only.

**Comment 24:** B(6)(b)(iii) – Semi-logarithmic analysis of recovery data should not be a rule requirement. It certainly can be useful but is not always necessary or meaningful. For example, in the case where recovery is interrupted by pumping of another nearby well or other hydrologic event (e.g., a sudden increase in stream flow that affects aquifer water levels) that makes analysis of the recovery data meaningless. **(Steve Champa, Mike Gibson and Chris Cobel, Eagon & Associates, Inc.)**

**Response 24:** Ohio EPA disagrees. The semi-logarithmic data is meaningful to characterize the influence of those events identified by the commenter on the well to gauge its viability to produce raw water. Plotting recovery data on semi-logarithmic graph paper is a basic tool used in pumping test evaluations. The semi-log graph makes interference from recharge/other wells/boundary conditions more apparent than without the semi-log axes. As with any tool, it may not be the best tool for every situation. However, at a minimum, this tool should be used first, and then other more appropriate tools can be applied. Water Well Standard 3745-9-09(B)(6)(b)(iii) is currently in effect and no change will be made.

**End of Response to Comments**