

### Ohio EPA correspondence and deadlines

April 29, 2024

RE: Buckeye Beach Park LLC
Compliance Review
Correspondence
Drinking Water
Fairfield County
PWS ID: OH2302212

Ms. Bonita Bair Buckeye Beach Park, LLC 5089 Bateson Drive Thornville, OH 43076

**Environmental** 

**Protection** 

Re: Ground Water Rule Corrective Action Plan Update

Dear Ms. Bair:

The Buckeye Beach Park LLC public water system (PWS) was given a modified corrective action plan, in accordance with Ohio Administrative Code (OAC) 3745-81-61, on December 11, 2023, to correct a significant deficiency on well #1 and the pit well treatment facility identified on April 20, 2016. Additional modifications have been made to the December 2023 corrective action plan since Ohio EPA temporarily deactivated the PWS on February 1, 2024, due to the population being served by the water system being under 25 persons along with the pending eviction of the remaining residents. The corrective action schedule for the abandonment of well no. 1 and the demolishment of the pit treatment system was extended to April 15, 2024.

On April 12, 2024, you requested another 30 days to complete this work and to submit modified plans to address the February 26, 2024, comment letter regarding the detail plans submitted for well no. 3. On April 23, 2024, I met representatives from the Fairfield County Health Department, the Licking County Wastewater Department, the Department of Commerce Division of Industrial Compliance and Manufactured Homes Program, and Sean Corsi, acting as your representative, at the PWS to discuss the status of the water and sanitary sewer services at the property along with the fact the eviction process has not been completed and there are still three occupied mobile homes. The following is what was agreed upon between the three governmental entities and your representative to be protective of human health:

- The residents occupying the three mobile homes and two RVs on the MHP side of the
  property who are required to have water service until they vacate the premises are to
  be placed on a boil alert since the water being served to them is from pit well water
  system. Sean was instructed to hand deliver the notices.
- 2. The Fairfield County Health Department does not require water service at campgrounds. Since campers were recently allowed into the RV campground, the RV side of the property is to have the water shut off permanently to ensure the campers are not using the water from the pit well water system. Sean was told to notify the campers in writing and the distribution pipes leading over to RV campground side are to be physically cut and capped in the ground. The Fairfield County HD will be visiting the RV campground to verify the water service is shut off as required.

Your facility does not have an approved PWS currently. The Corrective Action Plan required to be implemented to correct the significant deficiency and resolve the well standard violation on Well No. 1 at the Buckeye Beach Park LLC public water system is as follows:

- By May 17, 2024, submit the required information per the February 26, 2024, engineering comment letter to obtain detail plan approval for well no. 3 and a new treatment building.
- By May 31, 2024, complete the construction of the new treatment building and connect well no. 3 to be placed into service. Please submit pictures of the completed project.
- By May 31, 2024, have a well driller permanently seal well no. 1 and demolish the pit
  by removing the tanks, piping, and punching holes through the concrete blocks and
  backfilling the pit with indigenous soil. Please submit a copy of the ODNR well sealing
  report and pictures of the demolished pit.

The Buckeye Beach Park LLC PWS is required to complete the corrective actions as summarized in this letter. The Buckeye Beach Park LLC must follow the approved corrective action plan, including the schedule of implementation, as listed above. The significant deficiency must be corrected at your PWS. Noncompliance will result in the issuance of a Treatment Technique violation by the Ohio EPA with public notice requirements and will subject the PWS to potential additional enforcement action. This may include a requirement to remove the well from service and to provide alternative water.

Failure to comply with Chapter 6109 of the Ohio Revised Code and rules promulgated thereunder may result in a civil or administrative penalty. Please note that the submission of

Buckeye Beach Park, LLC April 29, 2024 Page 3

any requested information to respond to this letter does not constitute waiver of the Ohio EPA's authority to seek civil penalties as provided in Section 6109.33 of the Ohio Revised Code or administrative penalties as provided in Section 6109.23 of the Ohio Revised Code.

If you have any questions regarding this letter, or any other matter involving your water system, feel free to contact me at 614-728-3870 or via e-mail at bridgette.marchio@epa.ohio.gov.

Sincerely,

Bridgette Marchio

Environmental Manager

Division of Drinking and Ground Waters

Central District Office

ec: Fairfield County Health Department
Bryant Hillman, Department of Commerce

Mike Santone, Ohio EPA



Mike DeWine, Governor Jon Husted, Lt. Governor Anne M. Vogel, Director

February 26, 2024 **Transmitted Electronically**  RE:

Buckeye Beach Park, LLC

Plan

Correspondence

**Drinking Water Program** 

OH2302212

Project ID: DDAGW-1484

Buckeye Beach Park, LLC Attn.: Bonita Bair 5089 Bateson Drive Thornville, OH 43076

Subject: Buckeye Beach Park, LLC

Dear Ms. Bair:

We have reviewed the detail plans for the proposed well and treatment removal project entitled "Buckeye Beach Park, LLC." Based on our review, we have the following comments. Comments are identified as required or recommended. Comments in the Requirements section must be addressed before we can recommend this project for approval. Comments in the Recommendations section are issues that should be considered but will not be reason to deny the detail plans as proposed.

### Requirements

- 1. On February 9, 2024, John Wood received an email with attachments explaining what should be submitted for detail plan applications. The email included a small system detail plan template, small system submittal checklist, and a few other items. The email and its attachments will be forwarded to you outside of ePlans.
  - a. A copy of the facility description sheet from Ohio EPA's "New Well Application" was also attached to the email. Please complete this sheet to describe the new population to be served.
  - b. Please use the small system submittal checklist, and the below comments, to improve the detail plan application.
- 2. Please provide an "aerial" map showing the property limits of Buckeye Beach Park and the location of the water system components (with relation to direction). For instance, a north arrow should be

included on the map(s). Additionally, a scale (or alternative means for measuring distances) should be provided between the wells, water treatment plant, and distribution system.

- Please show where sources of contamination are located in relation to the water system components (e.g., sewer lines, septic systems, dump station, etc.).
- Please show the approximate paths of the proposed and/or installed discharge lines for the wells.
- If water mains will be extended or altered in the distribution system, please show the modifications in the plans.
- Please describe the proposed water treatment room/building (e.g., dimensions, floor elevation, construction materials, etc.). If the floor elevation with respect to mean sea level is not known, please indicate the height of the floor compared to surrounding grade.
- Please provide the make and model number(s) for the proposed pressure tanks. The tanks should be
  adequately sized to provide roughly two three minutes of pump runtime (or the minimum runtime
  required by the well pump manufacturer).
  - a. Please show the shutoff valve on each pressure tank's "service line."
- Check valves cannot be installed between the pitless adapter for a well and pressure tanks. Please revise the plan drawings.
- If the proposed water meter could be bypassed, please show the water meter on a water line other than the main line.
- Please show the raw water taps on the drawing. The taps must be smooth-nose sample taps and installed upstream of the pressure tanks.

### Well No. 2

- The detail plan application indicates Well No. 2 is associated with ODNR well log No. 531688. Source
  water assessment files from Ohio EPA indicate Well No. 2 is associated with ODNR well log No. 364497
  (attached). Please identify Well No. 2 with well log No. 364497, unless our records are inaccurate.
- Please indicate how Well No. 2 will operate with Well No. 3. For instance, if Well No. 2 will operate as the "lag" pump, what will trigger Well No. 2 to cut-on/cut-off (e.g., what will be the pressure settings)?

### Well No. 3

10. The engineering report published on October 2, 2018, for proposed Well No. 3 (and treatment plant upgrades) indicates Well No. 3 will be equipped with a Goulds, Model 25GS10 submersible well pump. Please indicate if the selected pump has changed since 2018.

- 11. The last complete well analysis for Well No. 3 occurred in 2013. Please purge Well No. 3 for one hour and then <u>immediately</u> sample Well No. 3 for the parameters listed for transient public water systems. Please also collect two bacteriological samples at least thirty minutes apart from one another. The certified lab responsible for the analyses should associate the results for Well No. 3 with PWS ID: OH2302212, Facility ID: WL003, and Sampling Point: RS003.
  - Please disinfect, flush, and resample the well for bacteria if one the samples is positive for total coliforms.
  - Please consult with the certified lab how long the analyses may take, given the results will be needed for this plan approval application.
  - c. Please ensure the lab analyzes for radium-228.
- 12. Please submit the original pumping test report for Well No. 3 through ePlans.
- Please submit the project summary sheet (PSS) for Well No. 3 with the plan approval application. If the original PSS cannot be found, please complete a new PSS.

### Recommendations

- Proposed shutoff valves/ball valves for the water treatment plant should be installed downstream of the pressure switches. Any shutoff valves proposed for a well should only be turned to the "closed" position if the power to the well's pump has been shutoff.
- One recommendation is to sample Well No. 2 for the parameters listed in the complete well analysis
  list for transient public water systems. The samples should be associated with PWS ID: WL85953,
  Facility ID: WL85953, and Sample Point: RS002.

Please address the above comments so we may re-evaluate this project. If you have any questions regarding this letter, please feel free to contact me by phone at (614) 705-1150 or by e-mail at celeste.bronson@epa.ohio.gov.

Sincerely,

Catil Bancon

Celeste A. Bronson, E.I.

Environmental Specialist II

Division of Drinking and Ground Waters

Attachment (Sent Separately): Project Summary Sheet for Proposed Wells

ODNR Well Log No. 364497

Complete Well Analysis Parameter List for Transient Public Water Systems



## Ohio EPA Parameters Required for Complete Well Analysis Transient Non-Community Water System



### Parameters Required for Complete Well Analysis Transient Non-Community Water Systems

NORGANIC CHEMICALS (IOCs)	Parameter	MCL/Regulatory Standard	Reporting Limit
Arsenic Total, As  O.010 mg/l (10 ug/l)  Asbestos (If required)*  7 MFL  0.2 MFL  300.0 ug/l  300.0 ug/l  Calcium Total, Ba  2 mg/l (2000 ug/l)  300.0 ug/l  Calcium Total, Ca  No standard  None  Chloride, Cl  Copper Total, Cu  1.3 mg/l (1,300 ug/l) AL  50.0 ug/l  Fluoride Total, F  4.0 mg/l  Iron Total, Fe  0.3 mg/l (300 µg/l) SMCL  None  Lead Total, Pb  0.015 mg/l (15 ug/l) AL  5.0 ug/l  Magnesium Total, Mg  No standard  None  Manganese Total, Mn  0.05 mg/l (50 ug/l) SMCL  None  Nitrate, NO <sub>3</sub> (as N)  10 mg/l  Nitrate-Nitrite, NO <sub>3</sub> -NO <sub>2</sub> (as N)  11 mg/l  0.1 mg/l  PH, Lab S.U.  7.0 - 10.5 SMCL  None  Total Dissolved Solids  500 mg/l SMCL  None  Solima Total, Na  No standard  None  RADIOLOGICALS (Rads)  Gross Alpha  Gross Alpha  15 pCi/l MCL / 5 p Ci/l AL  Radium 228  4 mrem/yr MCL / 50 p Ci/l AL  Radium 228  Radium 228  5 p Ci/l (sum with 226 result)  1 p ci/l  PACTERIA STANDARDS		INORGANIC CHEMICALS (IC	OCs)
Asbestos (If required)*  Barium Total, Ba  2 mg/l (2000 ug/l)  300.0 ug/l  300.0 ug/l  300.0 ug/l  300.0 ug/l  300.0 ug/l  300.0 ug/l  None  Coloride, Cl  250 mg/l SMCL  None  Copper Total, Cu  1.3 mg/l (1,300 ug/l) AL  50.0 ug/l  Fluoride Total, F  4.0 mg/l  10.5 ug/l  Iron Total, Fe  0.3 mg/l (300 µg/l) SMCL  None  Lead Total, Pb  0.015 mg/l (15 ug/l) AL  5.0 ug/l  Magnesium Total, Mg  No standard  None  Manganese Total, Mn  0.05 mg/l (50 ug/l) SMCL  None  Nitrate, NO3 (as N)  10 mg/l  0.5 mg/l  Nitrite, NO3-NO2 (as N)  10 mg/l  0.1 mg/l  0.1 mg/l  0.1 mg/l  PH, Lab S.U.  7.0 - 10.5 SMCL  None  Total Dissolved Solids  500 mg/l SMCL  None  Sodium Total, Na  No standard  None  Solfate, SO4  250 mg/l SMCL  None  RADIOLOGICALS (Rads)  Gross Alpha  Gross Alpha  Gross Beta**  4 mrem/yr MCL / 50 pCi/l AL  Radium 228  5 pCi/l (sum with 228 result)  1 pCi/l  Radium 228*  S pCi/l (sum with 228 result)  1 pCi/l  Uranium****  30 ug/l (20 pCi/l)  BACTERIA STANDARDS	Alkalinity Total, as CaCO₃	No standard	None
Barium Total, Ba 2 mg/l (2000 ug/l) 300.0 ug/l Calcium Total, Ca No standard None Chloride, Cl 250 mg/l SMCL None Copper Total, Cu 1.3 mg/l (1,300 ug/l) AL 50.0 ug/l Fluoride Total, F 4.0 mg/l 0.5 ug/l Iron Total, Fe 0.3 mg/l (300 μg/l) SMCL None Lead Total, Pb 0.015 mg/l (15 ug/l) AL 5.0 ug/l Magnesium Total, Mg No standard None Manganese Total, Mn 0.05 mg/l (50 ug/l) SMCL None Nitrate, NO3 (as N) 10 mg/l 0.5 mg/l Nitrate-Nitrite, NO3-NO2 (as N) 10 mg/l 0.5 mg/l Nitrite, NO2 (as N) 1 mg/l 0.1 mg/l PH, Lab S.U. 7.0 - 10.5 SMCL None Total Dissolved Solids 500 mg/l SMCL None Sodium Total, Na No standard None Sodium Total, Na No standard None Sodium Total, Na No standard None Gross Alpha 15 pCi/l MCL / 5 pCi/l AL 3 pCi/l Radium 228 5 pCi/l (sum with 228 result) 1 pCi/l Radium 226*** 1 pCi/l Uranium**** 30 ug/l (20 pCi/l) 1 ug/l	Arsenic Total, As	0.010 mg/l (10 ug/l)	3.0 ug/l
Calcium Total, Ca       No standard       None         Chloride, Cl       250 mg/l SMCL       None         Copper Total, Cu       1.3 mg/l (1,300 ug/l) AL       50.0 ug/l         Fluoride Total, F       4.0 mg/l       0.5 ug/l         Iron Total, Fe       0.3 mg/l (300 µg/l) SMCL       None         Lead Total, Pb       0.015 mg/l (15 ug/l) AL       5.0 ug/l         Magnesium Total, Mg       No standard       None         Manganese Total, Mn       0.05 mg/l (50 ug/l) SMCL       None         Nitrate, NO3 (as N)       10 mg/l       0.5 mg/l         Nitrate-Nitrite, NO3-NO2 (as N)       10 mg/l       0.5 mg/l         Nitrite, NO2 (as N)       1 mg/l       0.1 mg/l         PH, Lab S.U.       7.0 - 10.5 SMCL       None         Total Dissolved Solids       500 mg/l SMCL       None         Sodium Total, Na       No standard       None         Sulfate, SO4       250 mg/l SMCL       None         RADIOLOGICALS (Rads)         Gross Alpha       15 pCi/l MCL / 5 pCi/l AL       4 pCi/l         Gross Beta**       4 mrem/yr MCL / 50 pCi/l AL       4 pCi/l         Radium 228       5 pCi/l (sum with 226 result)       1 pCi/l         Uranium*****       30 ug/l (20 pCi/l)	Asbestos (If required)*	7 MFL	0.2 MFL
Chloride, Cl       250 mg/l SMCL       None         Copper Total, Cu       1.3 mg/l (1,300 ug/l) AL       50.0 ug/l         Fluoride Total, F       4.0 mg/l       0.5 ug/l         Iron Total, Fe       0.3 mg/l (300 µg/l) SMCL       None         Lead Total, Pb       0.015 mg/l (15 ug/l) AL       5.0 ug/l         Magnesium Total, Mg       No standard       None         Manganese Total, Mn       0.05 mg/l (50 ug/l) SMCL       None         Nitrate, NO3 (as N)       10 mg/l       0.5 mg/l         Nitrate-Nitrite, NO3-NO2 (as N)       10 mg/l       0.5 mg/l         Nitrite, NO2 (as N)       1 mg/l       0.1 mg/l         PH, Lab S.U.       7.0 - 10.5 SMCL       None         Total Dissolved Solids       500 mg/l SMCL       None         Sodium Total, Na       No standard       None         Sulfate, SO4       250 mg/l SMCL       None         RADIOLOGICALS (Rads)         Gross Alpha       15 pCi/l MCL / 5 pCi/l AL       3 pCi/l         Gross Beta**       4 mrem/yr MCL / 50 pCi/l AL       4 pCi/l         Radium 228       5 pCi/l (sum with 228 result)       1 pCi/l         Uranium****       30 ug/l (20 pCi/l)       1 ug/l	Barium Total, Ba	2 mg/l (2000 ug/l)	300.0 ug/l
Copper Total, Cu       1.3 mg/l (1,300 ug/l) AL       50.0 ug/l         Fluoride Total, F       4.0 mg/l       0.5 ug/l         Iron Total, Fe       0.3 mg/l (300 μg/l) SMCL       None         Lead Total, Pb       0.015 mg/l (15 ug/l) AL       5.0 ug/l         Magnesium Total, Mg       No standard       None         Manganese Total, Mn       0.05 mg/l (50 ug/l) SMCL       None         Nitrate, NO3 (as N)       10 mg/l       0.5 mg/l         Nitrite, NO4 (as N)       10 mg/l       0.5 mg/l         Nitrite, NO2 (as N)       1 mg/l       0.1 mg/l         PH, Lab S.U.       7.0 - 10.5 SMCL       None         Total Dissolved Solids       500 mg/l SMCL       None         Sodium Total, Na       No standard       None         Sulfate, SO4       250 mg/l SMCL       None         RADIOLOGICALS (Rads)         Gross Alpha       15 pC/l MCL / 5 pC/l AL       3 pC/l         Gross Beta**       4 mrem/yr MCL / 50 pC/l AL       4 pC/l         Radium 228       5 pCi/l (sum with 226 result)       1 pCi/l         Radium 226***       5 pCi/l (sum with 228 result)       1 pCi/l         Uranium****       30 ug/l (20 pCi/l)       1 ug/l	Calcium Total, Ca	No standard	None
Fluoride Total, F  4.0 mg/l  1 on Total, Fe  0.3 mg/l (300 μg/l) SMCL  None  Lead Total, Pb  0.015 mg/l (15 ug/l) AL  Magnesium Total, Mg  No standard  None  Manganese Total, Mn  0.05 mg/l (50 ug/l) SMCL  None  Nitrate, NO <sub>3</sub> (as N)  10 mg/l  Nitrate-Nitrite, NO <sub>3</sub> -NO <sub>2</sub> (as N)  10 mg/l  Nitrite, NO <sub>2</sub> (as N)  1 mg/l  O.5 mg/l  None  Total Dissolved Solids  Solium Total, Na  No standard  None  Solium Total, Na  No standard  None  Solima Total, Na  No standard  None  RADIOLOGICALS (Rads)  Gross Alpha  15 pCi/l MCL / 5 pCi/l AL  Radium 228  5 pCi/l (sum with 226 result)  Radium 226***  10 mg/l  1 ug/l  BACTERIA STANDARDS	Chloride, Cl	250 mg/I SMCL	None
Iron Total, Fe	Copper Total, Cu	1.3 mg/l (1,300 ug/l) AL	50.0 ug/l
Lead Total, Pb       0.015 mg/l (15 ug/l) AL       5.0 ug/l         Magnesium Total, Mg       No standard       None         Manganese Total, Mn       0.05 mg/l (50 ug/l) SMCL       None         Nitrate, NO3 (as N)       10 mg/l       0.5 mg/l         Nitrate-Nitrite, NO2 (as N)       10 mg/l       0.5 mg/l         Nitrite, NO2 (as N)       1 mg/l       0.1 mg/l         PH, Lab S.U.       7.0 - 10.5 SMCL       None         Total Dissolved Solids       500 mg/l SMCL       None         Sodium Total, Na       No standard       None         Sulfate, SO4       250 mg/l SMCL       None         Gross Alpha       15 pCi/l MCL / 5 pCi/l AL       3 pCi/l         Gross Beta**       4 mrem/yr MCL / 50 pCi/l AL       4 pCi/l         Radium 228       5 pCi/l (sum with 226 result)       1 pCi/l         Radium 226***       5 pCi/l (sum with 228 result)       1 pCi/l         Uranium****       30 ug/l (20 pCi/l)       1 ug/l	Fluoride Total, F	4.0 mg/l	0.5 ug/l
Lead Total, Pb       0.015 mg/l (15 ug/l) AL       5.0 ug/l         Magnesium Total, Mg       No standard       None         Manganese Total, Mn       0.05 mg/l (50 ug/l) SMCL       None         Nitrate, NO3 (as N)       10 mg/l       0.5 mg/l         Nitrate-Nitrite, NO3-NO2 (as N)       10 mg/l       0.5 mg/l         Nitrite, NO2 (as N)       1 mg/l       0.1 mg/l         PH, Lab S.U.       7.0 - 10.5 SMCL       None         Total Dissolved Solids       500 mg/l SMCL       None         Sodium Total, Na       No standard       None         Sulfate, SO4       250 mg/l SMCL       None         RADIOLOGICALS (Rads)         Gross Alpha       15 pCi/l MCL / 5 pCi/l AL       3 pCi/l         Gross Beta**       4 mrem/yr MCL / 50 pCi/l AL       4 pCi/l         Radium 228       5 pCi/l (sum with 226 result)       1 pCi/l         Radium 226***       5 pCi/l (sum with 228 result)       1 pCi/l         Uranium****       30 ug/l (20 pCi/l)       1 ug/l	Iron Total, Fe	0.3 mg/l (300 μg/l) SMCL	None
Manganese Total, Mn       0.05 mg/l (50 ug/l) SMCL       None         Nitrate, NO3 (as N)       10 mg/l       0.5 mg/l         Nitrate-Nitrite, NO3-NO2 (as N)       10 mg/l       0.5 mg/l         Nitrite, NO2 (as N)       1 mg/l       0.1 mg/l         PH, Lab S.U.       7.0 - 10.5 SMCL       None         Total Dissolved Solids       500 mg/l SMCL       None         Sodium Total, Na       No standard       None         Sulfate, SO4       250 mg/l SMCL       None         RADIOLOGICALS (Rads)         Gross Alpha       15 pCi/l MCL / 5 pCi/l AL       3 pCi/l         Gross Beta**       4 mrem/yr MCL / 50 pCi/l AL       4 pCi/l         Radium 228       5 pCi/l (sum with 226 result)       1 pCi/l         Radium 226***       5 pCi/l (sum with 228 result)       1 pCi/l         Uranium****       30 ug/l (20 pCi/l)       1 ug/l	Lead Total, Pb		5.0 ug/l
Nitrate, NO3 (as N)       10 mg/l       0.5 mg/l         Nitrate-Nitrite, NO2 (as N)       10 mg/l       0.5 mg/l         Nitrite, NO2 (as N)       1 mg/l       0.1 mg/l         pH, Lab S.U.       7.0 - 10.5 SMCL       None         Total Dissolved Solids       500 mg/l SMCL       None         Sodium Total, Na       No standard       None         Sulfate, SO4       250 mg/l SMCL       None         RADIOLOGICALS (Rads)         Gross Alpha       15 pCi/l MCL / 5 pCi/l AL       3 pCi/l         Gross Beta**       4 mrem/yr MCL / 50 pCi/l AL       4 pCi/l         Radium 228       5 pCi/l (sum with 226 result)       1 pCi/l         Radium 226***       5 pCi/l (sum with 228 result)       1 pCi/l         Uranium****       30 ug/l (20 pCi/l)       1 ug/l         BACTERIA STANDARDS	Magnesium Total, Mg	No standard	None
Nitrate-Nitrite, NO <sub>3</sub> -NO <sub>2</sub> (as N)  10 mg/l  Nitrite, NO <sub>2</sub> (as N)  1 mg/l  7.0 - 10.5 SMCL  None  Total Dissolved Solids  500 mg/l SMCL  None  Sodium Total, Na  No standard  None  RADIOLOGICALS (Rads)  Gross Alpha  Gross Beta**  4 mrem/yr MCL / 50 pCi/l AL  Radium 228  Radium 228  5 pCi/l (sum with 228 result)  1 pCi/l  Radium 226***  10 mg/l  0.5 mg/l  None  None  RADIOLOGICALS  10 pCi/l  11 pCi/l  12 pCi/l  13 pCi/l  14 pCi/l  15 pCi/l (sum with 228 result)  15 pCi/l  15 pCi/l (sum with 228 result)  15 pCi/l	Manganese Total, Mn	0.05 mg/l (50 ug/l) SMCL	None
Nitrite, NO₂ (as N)       1 mg/l       0.1 mg/l         pH, Lab S.U.       7.0 - 10.5 SMCL       None         Total Dissolved Solids       500 mg/l SMCL       None         Sodium Total, Na       No standard       None         Sulfate, SO₄       250 mg/l SMCL       None         RADIOLOGICALS (Rads)         Gross Alpha       15 pCi/l MCL / 5 pCi/l AL       3 pCi/l         Gross Beta**       4 mrem/yr MCL / 50 pCi/l AL       4 pCi/l         Radium 228       5 pCi/l (sum with 226 result)       1 pCi/l         Radium 226***       5 pCi/l (sum with 228 result)       1 pCi/l         Uranium****       30 ug/l (20 pCi/l)       1 ug/l         BACTERIA STANDARDS	Nitrate, NO₃ (as N)	10 mg/l	0.5 mg/l
PH, Lab S.U.  Total Dissolved Solids  Sodium Total, Na  No standard  None  Sulfate, SO <sub>4</sub> Sulfate, SO <sub>4</sub> Sulfate, SO <sub>6</sub> Sulfate, SO <sub>7</sub> Sulfate, SO <sub>8</sub> Gross Alpha  Gross Beta**  4 mrem/yr MCL / 5 pCi/l AL  Radium 228  Radium 228  Radium 226***  SpCi/l (sum with 226 result)  SpCi/l  SpCi/l (sum with 228 result)  SpCi/l  SpCi/l  SpCi/l (sum with 228 result)  SpCi/l  SpCi/l  SpCi/l (sum with 228 result)  SpCi/l	Nitrate-Nitrite, NO <sub>3</sub> -NO <sub>2</sub> (as N)	10 mg/l	0.5 mg/l
Total Dissolved Solids  Sodium Total, Na  No standard  None  Sulfate, SO <sub>4</sub> Sulfate, SO <sub>4</sub> Cross Alpha  Gross Beta**  Radium 228  Radium 228  Radium 226***  Uranium****  Solid MCL  Soli	Nitrite, NO₂ (as N)	1 mg/l	0.1 mg/l
Sodium Total, Na         No standard         None           Sulfate, SO4         250 mg/l SMCL         None           RADIOLOGICALS (Rads)           Gross Alpha         15 pCi/l MCL / 5 pCi/l AL         3 pCi/l           Gross Beta**         4 mrem/yr MCL / 50 pCi/l AL         4 pCi/l           Radium 228         5 pCi/l (sum with 226 result)         1 pCi/l           Radium 226***         5 pCi/l (sum with 228 result)         1 pCi/l           Uranium****         30 ug/l (20 pCi/l)         1 ug/l           BACTERIA STANDARDS	pH, Lab S.U.	7.0 - 10.5 SMCL	None
Sulfate, SO <sub>4</sub> 250 mg/I SMCL  RADIOLOGICALS (Rads)  Gross Alpha  15 pCi/I MCL / 5 pCi/I AL  3 pCi/I  Gross Beta**  4 mrem/yr MCL / 50 pCi/I AL  4 pCi/I  Radium 228  5 pCi/I (sum with 226 result)  1 pCi/I  Radium 226***  5 pCi/I (sum with 228 result)  1 pCi/I  Uranium****  30 ug/I (20 pCi/I)  1 ug/I  BACTERIA STANDARDS	Total Dissolved Solids	500 mg/I SMCL	None
## RADIOLOGICALS (Rads)    Gross Alpha	Sodium Total, Na	No standard	None
Gross Alpha 15 pCi/l MCL / 5 pCi/l AL 3 pCi/l Gross Beta** 4 mrem/yr MCL / 50 pCi/l AL 4 pCi/l Radium 228 5 pCi/l (sum with 226 result) 1 pCi/l Radium 226*** 5 pCi/l (sum with 228 result) 1 pCi/l Uranium**** 30 ug/l (20 pCi/l) 1 ug/l BACTERIA STANDARDS	Sulfate, SO <sub>4</sub>	250 mg/l SMCL	None
Gross Beta** 4 mrem/yr MCL / 50 pCi/l AL 4 pCi/l Radium 228 5 pCi/l (sum with 226 result) 1 pCi/l Radium 226*** 5 pCi/l (sum with 228 result) 1 pCi/l Uranium**** 30 ug/l (20 pCi/l) 1 ug/l BACTERIA STANDARDS		RADIOLOGICALS (Rads)	
Radium 228   5 pCi/l (sum with 226 result)   1 pCi/l     Radium 226***   5 pCi/l (sum with 228 result)   1 pCi/l     Uranium****   30 ug/l (20 pCi/l)   1 ug/l     BACTERIA STANDARDS	Gross Alpha	15 pCi/l MCL / 5 pCi/l AL	3 pCi/l
Radium 226***   5 pCi/l (sum with 228 result)   1 pCi/l	Gross Beta**	4 mrem/yr MCL / 50 pCi/l AL	4 pCi/l
Uranium**** 30 ug/l (20 pCi/l) 1 ug/l BACTERIA STANDARDS	Radium 228	5 pCi/l (sum with 226 result)	1 pCi/l
BACTERIA STANDARDS	Radium 226***	5 pCi/l (sum with 228 result)	1 pCi/l
	Uranium****	30 ug/l (20 pCi/l)	1 ug/l
Total Coliform (2 samples collected at least 30 mins apart) 1 Positive = Standard Exceeded		BACTERIA STANDARDS	
	Total Coliform (2 samples collected a	t least 30 mins apart) 1	Positive = Standard Exceeded

NOTE: All samples must be analyzed by a certified laboratory. All applicable sample results must be received and approved by Ohio EPA before the well can be considered for use as a public water source. Additional analyses beyond those listed may be required.

- \* Asbestos is required at the discretion of the district office staff.
- \*\* Analysis of all major radioactive constituents required if gross beta result exceeds 50 pCi/l.
- \*\*\* Radium 226 required if the gross alpha result exceeds 5 pCi/l or radium 228 exceeds 1 pCi/l.
- \*\*\*\* Uranium required if the gross alpha result exceeds 15 pCi/l.

### **Abbreviations**

MCL - Maximum Contaminant Level

MCLG - Maximum Contaminant Level Goal

mg/l - milligrams per liter (parts per million - ppm) = 1,000 ug/l

ug/l — micrograms per liter (parts per billion - ppb) = .001 mg/l

MFL - million fibers per liter

pCi/l - picocuries per liter

SMCL — Secondary Maximum Contaminant Level; Advisory limit only

AL - Action Level; requires action to be taken

mrem/yr - millirem per year



## Ohio EPA Excerpt from Guidelines for Design of Small Public Ground Water System 2.5 Plan Submittal and Information Required on Plans

### 2.4 Develop an Approved Storage System Using Hauled Water

Hauled water systems are not recommended for community public water systems. Consult the District Office to determine whether or not the hauled water system will be exempt from Ohio EPA regulation (see Section 1.1.5). If the hauled water system is not exempt, plans will be required (see Appendix G). If the hauled water system will be exempt, the required health department and plumbing permits must still be obtained.

### 2.5 Plan Submittal and Information Required on Plans

Detail plans are required for a proposed water system. These should be prepared by a professional engineer or a water supply specialist knowledgeable in system design in accordance with OAC 3745-91-03. Plans should be submitted at least 60 days prior to the desired approval date. These plans shall contain the following, where applicable:

- 2.5.1 A site map (Appendix A), drawn to scale, showing existing and/or proposed:
  - 2.5.1.1 Property lines, ownership of land, and land use of surrounding properties.
  - 2.5.1.2 Outlines of buildings, including those relevant to the project which are located on adjacent properties.
  - 2.5.1.3 Water system location.
  - 2.5.1.4 Sewerage system location.
  - 2.5.1.5 Well site(s) with isolation radius (radii), and showing any potential sources of contamination and areas owned or having sanitary protection through recorded easements.
  - 2.5.1.6 Nearby streets, driveways, and enough boundary information to locate the project.
  - 2.5.1.7 Any expected future expansion of the project.
  - 2.5.1.8 North arrow to show orientation.
  - 2.5.1.9 Elevations pertinent to the design.
  - 2.5.1.10 Location of water mains, pump stations, raw water intakes, water plant, waste disposal facilities, and other existing or proposed parts of this system.
  - 2.5.1.11 Locations of potential contaminant sources within drinking water source protection area, both the inner management zone and five year time of travel area.
- 2.5.2 Details showing conformance with standards and requirements for:
  - 2.5.2.1 Source (Chapter 3)
  - 2.5.2.2 Treatment (Chapter 4)
  - 2.5.2.3 Storage (Chapter 5)
  - 2.5.2.4 Distribution (Chapter 6)
- 2.5.3 The application for detail plans on the portal replaces the Water Supply Data Sheet. Following submittal of plans, the submitter is emailed an invoice for the plan review fee. Additional information is located on the Ohio EPA website under the Division of Drinking and Ground Waters website, engineering and plan approval page.
- 2.5.4 Specifications, project summary sheets and supporting data (e.g., well log, pumping test, etc.)
- 2.5.5 Other letters as appropriate such as PUCO certificate of convenience and necessity, if applicable or additional documentation required for obtaining Water Supply Revolving Loan Account (WSRLA) funding.
- 2.5.6 A title page showing, at a minimum:
  - 2.5.6.1 The owner's name and address.

- 2.5.6.2 The official name and address of the public water system.
- 2.5.6.3 The title of the project being submitted for review.
- 2.5.6.4 The public water system identification number (PWSID).
- 2.5.6.5 PE stamp (as required by ORC Section 4733.17 and OAC 3745-91-03).
- 2.5.6.6 Signature of water system owner approving the plans or a signed submittal letter from the owner or the owner's representative, requesting approval of the plans.
- 2.5.7 An asset management program (AMP) is required for new community and non-transient non-community public water systems. The AMP must include the applicable requirements as defined in OAC Chapter 3745-87. An AMP is also required for any existing system receiving State Revolving Loan Funding or Drinking Water Emergency Loan Funding.

### **Chapter 3 - Source**

### 3.0 General

This section overviews requirements for developing a groundwater supply source. The engineer or water system specialist responsible for designing the groundwater system must demonstrate an adequate quantity of safe drinking water will be available to consumers. Approval of a groundwater source will be contingent on the quality and quantity of water supplied from the proposed well(s).

Metering of the water shall be provided for all community water systems and recommended for all noncommunity water systems.

### 3.1 Availability of Well Water

The availability of an adequate well water supply is a major consideration in the selection of a well site. Information on the availability of ground water can be obtained from the Ohio Department of Natural Resources, Division of Soil and Water Resources, Ground Water Mapping and Technical Services Section (Tel: 614-265-6747).

### 3.2 Quality of Water

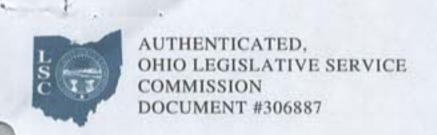
### 3.2.1 Microbiological Quality

Before any new, reconditioned or modified well is placed into potable service, the well must be disinfected in accordance with Section 3.10. Total chlorine shall be tested and the results of the test noted on the sample submission form. Total chlorine shall be undetectable prior to sampling for microbiological samples. Two consecutive total coliform negative microbiological samples taken at least 30 minutes apart shall be taken from the well. Analysis shall be performed by an Ohio EPA certified laboratory. Ohio EPA certified laboratory list can be found on the Ohio EPA Division of Environmental Services webpage. Additional monitoring may be required if the grouting of the well is questionable.

If a well cannot achieve negative (safe) bacteriological samples, it may require treatment which is beyond the scope of this manual. Contact your District Office for further guidance.



## Ohio Administrative Code – Definitions Water System

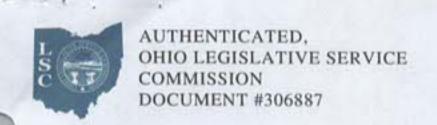


### Ohio Administrative Code Rule 3745-91-01 Definitions.

Effective: August 12, 2023

Except for definitions contained in this rule, the definitions in rule 3745-81-01 of the Administrative Code apply to this chapter. As used in this chapter of the Administrative Code:

- (A) "Applicant" means the person who signs the submittal letter or detail plan documents as specified by rule 3745-91-07 of the Administrative Code.
- (B) "Like-kind replacement" means replacement of equipment or components that meet the design criteria specified in the plans approved by the director.
- (C) "Substantial change" means any change that affects isolation, capacity, flows, water quality, source, distribution or treatment.
- (1) Substantial change shall include but not be limited to the following:
- (a) For distribution systems: new waterlines; replacement waterlines that change in size, alignment or material; new tanks; modification in storage; new booster stations; changes in pump capacity and auxiliary power.
- (b) For water sources: any new source or alteration in source, including connection to another source or distribution system; any alteration in collection facilities or equipment.
- (c) For treatment facilities: new treatment processes, including facilities, equipment or chemicals; changes in chemical feed capacity, feeder type, application points or sequence; modifications to or removal of treatment processes, equipment or chemicals.
- (2) Substantial change shall not include the following:
- (a) For distribution systems: waterline cleaning, re-lining, repairs, or like-kind replacement; service



connections; and tank maintenance.

- (b) For water sources: like-kind pump replacement.
- (c) For treatment facilities: like-kind replacement of components.
- (D) "General plan" means a written, long-term plan of the proposed or existing public water system that evaluates, at a minimum: existing circumstances, future conditions, alternatives, long and short term costs, affordability, sustainability and operation and maintenance.



### Ohio EPA Small System Plan Submittal Checklist



### SMALL SYSTEM PLAN SUBMITTAL CHECKLIST

in plantable Trips	Nater System Identification No.: PWS-2302212
For all pla	ans, include the following:
	Ohio EPA Public Drinking Water - Water Supply Data Worksheet (completed). Electronic plan sheets with title sheet signed by the owner and designer.
Plan revie payment is	w fee invoices will be emailed to the submitter and plan review will begin once a complete application, including s received.
For plans	which include new and existing well(s), include the following:
3. 4. 5. 6. 7. × 8. × 9. × 10.	Well Site Approval Letter (generated by Ohio EPA). Required New Well Analysis Results - conducted by an Ohio EPA certified laboratory to perform analysis on public drinking water (contact your District Office for the required analyses). Well Profile and Construction Form (completed). Well pump curve. Step Drawdown and Constant Rate Pumping Test Results. ODNR Well Log and Drilling Report (completed). All wells must be grouted in accordance with Ohio Administrative Code 3745-9-07. Electronic site plans (to scale) showing:     X
	<ul> <li>X e. Proposed/Existing Water Lines</li> <li>X f. Proposed Septic Systems and/or Sewage Lines</li> <li>N/A g. Proposed and/or Existing Storm Sewers</li> <li>N/A h. Contour Lines (if available)</li> <li>N/A i. Other possible sources of contamination such as: ponds, sewage lagoons, fuel tanks, and drainage swales</li> </ul>
× 11. × 12. × 13.	Copy of the Deed or Easement to property within the isolation radius of well. Information regarding any proposed abandonment of wells. Two raw water total coliform results with no chlorine residual taken at least 30 minutes apart.
For plans	involving the installation of water storage or treatment equipment, include the following:
	Manufacturer's data sheet for each piece of equipment to be installed.  Schematic/Drawing of water treatment schematic (side view) and a treatment room layout (top view).  If most recent raw water inorganic chemical analysis is more than 5 years old, include up to date results.  Documentation demonstrating that chemicals/equipment have NSF 60/61 certification.

expedite the plan review.

## TITLE SHEET

(Title of Project)

(Street Address)

(Public Water System Name & ID Number)

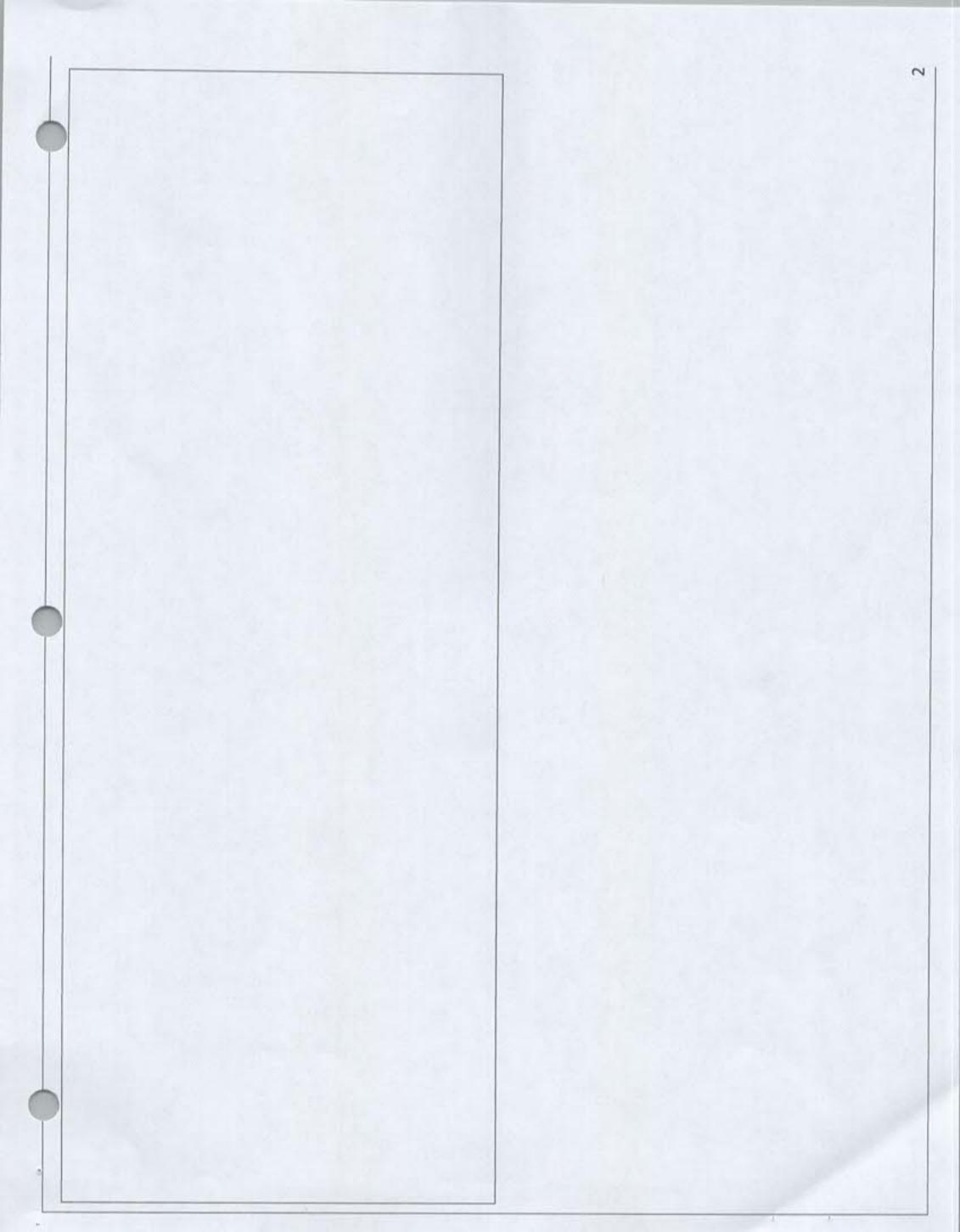
(City, State, Zip)

(Signature: Public Water System/Facility Owner)

(Signature: Water System Designer)

Use the Area (Street) Location Map to reference highways, streets, corporate boundaries, and/or local physical landmarks near the project area. Use the Site Project Map to identify the location of the proposed/existing water system and to identify nearby sources of contamination (e.g., septic system lines). Please show property lines, provide a scale, and indicate north. If a scale is not provided, then please type (or handwrite) "NTS" near the maps to indicate "not to scale." If these maps will be attached to the template, please type (or handwrite) "see attached" in the blank space provided for the maps.

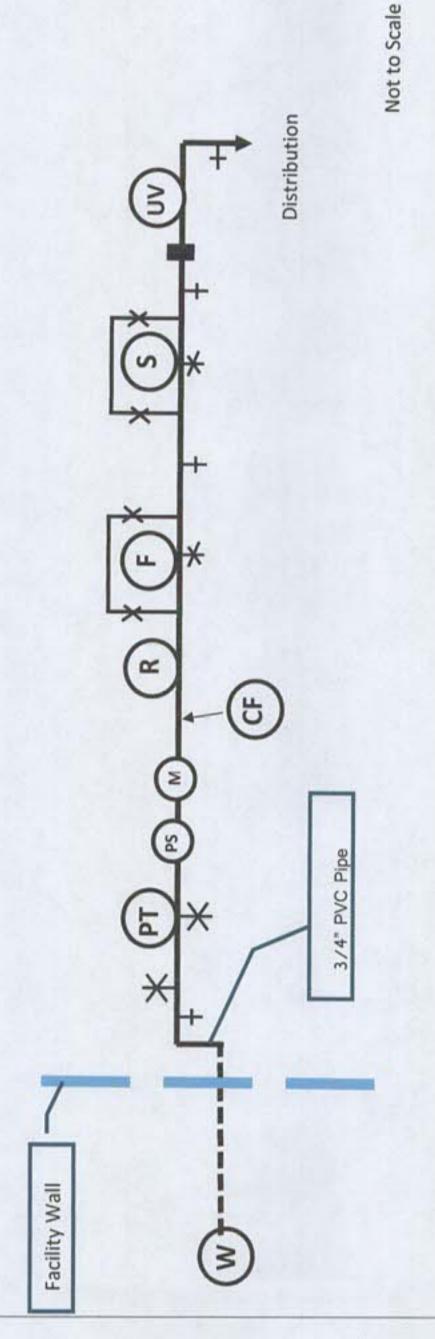




NORTH

# TREATMENT SCHEMATIC SHEET

A schematic for the water system can be attached to this plan approval template or the example schematic shown can be edited (or deleted) to create a schematic representative of your water system in the space provided.



Legend

Pressure Switch/Sensor Inch Diameter Pipe

Chemical Feeder

- Sample Tap

Pump to Waste Connection and/or Drain Line

Check Valve \* Valve

> | Ultraviolet Light 3

Pressure

Pressure Tank

Well

Softener

PS

Retention Tank

Water Meter

REATWENT ROOM LAYOUT SHEET

# SUMMARY OF WATER SYSTEM SHEET

Well Pump Information (Well No. )	Pressure Tank Information
well ramp illigituation (well two:	Number of Tanks
Make	Make
Model	Model
GPM	Total Volume (gallons)
НР	Operating Pressure Range (psi)
Depth	Retention Tank Information
Is the well's motor controlled by a Choose variable frequency drive (VFD)? an item.	Number of Tanks Make
	Model Total Volume (gallons)
Well Pump Information (Well No. )	
Make	
Model	
GPM	
HP	Pressure Filter Information
Depth	nks
Is the well's motor controlled by a Choose	Arrangement Choose an item.
1	Model
	Tank Diameter (in.)
	Tank Height (in.)
Well Pump Information (Well No)	Media Speci
Make	Type Depth Unifo
Model	Choose an item.
GPM	Choose an item.
НР	Choose an item.
Depth	Support Gravel (Depth and Size)
Is the well's motor controlled by a Choose variable frequency drive (VFD)? an item.	Control Valve Make/Model
1	

## **Effective Size** ormity Coefficient ifications

Ultraviolet (UV) Treatment System  Make  Model Flow Capacity (gpm) Solution Tank Size (gallons) Solution Tank Size (gallons) Solution Tank Size (gallons) Chemical Feed Pump Information Classification  Chemical Pump Make
---

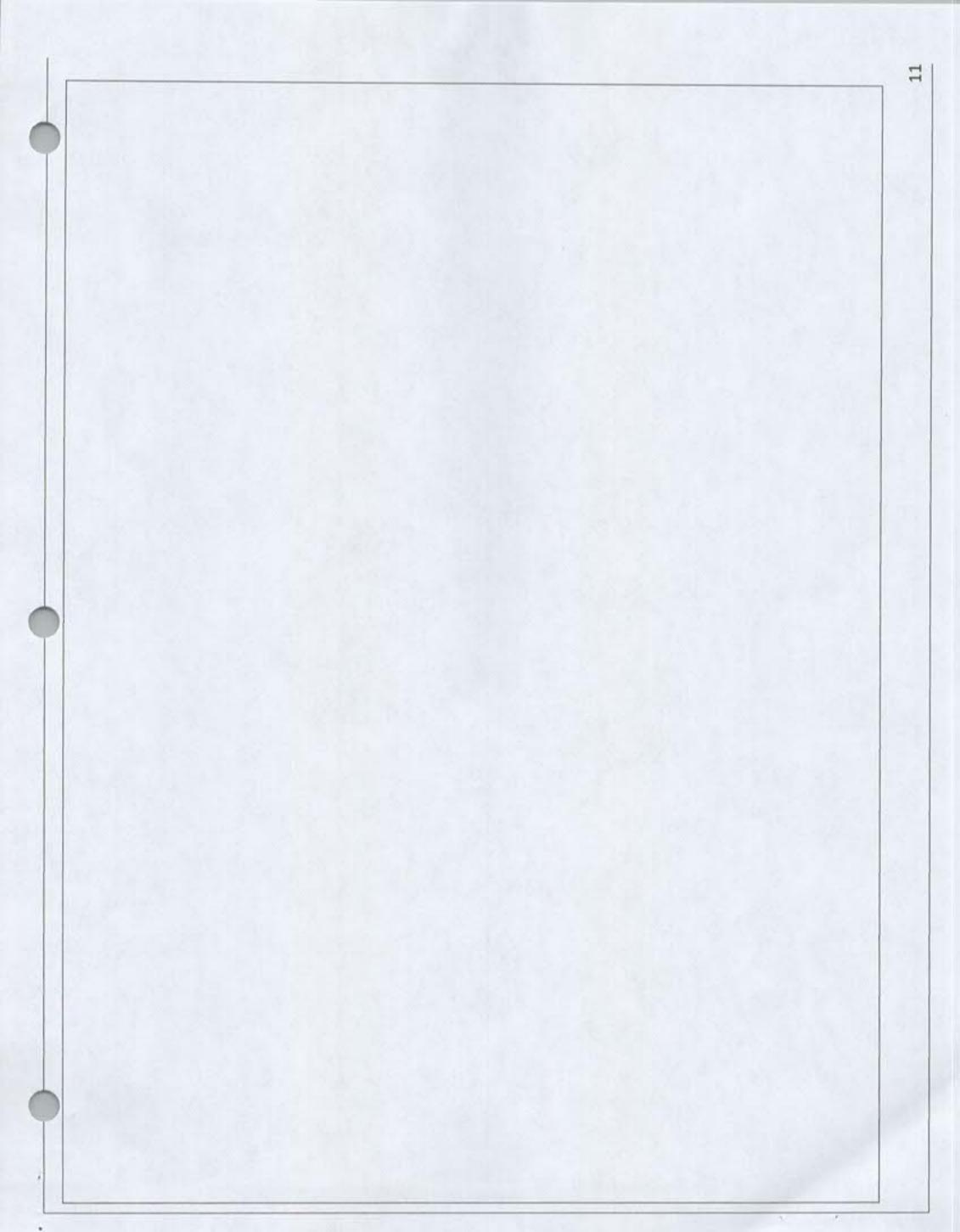
# SUPPLEMENTAL INFORMATION

Please provide specifications for the proposed water system components (e.g., well cap, pressure tank, discharge line, etc.) with the detail plan submittal. The specifications can be submitted as separate PDF attachments or attached directly to this template. Additionally, if applicable, please submit photographs of the well and other system components (cartridge filter, water softeners, etc.). Photographs may be added to this template in the space provided.

[Insert 1st photo]

[Insert caption for 1st photo]

-			10	2
	[Insert 4th photo]	[Insert caption for 5th photo]		





## Ohio EPA New PWS/Well Application Package: Part 3 – Facility Description and PWS Evaluation

### NEW PWS/WELL APPLICATION PACKAGE: PART 3 - FACILITY DESCRIPTION AND PWS EVALUATION

Ohio EPA will use the information on this page to determine whether the facility meets the requirements to be regulated as a public water system under the ORC 6109 and rules adopted thereunder. Ohio EPA will also use the type of population your facility will serve, to estimate how much water your facility will need, and to determine the isolation radius for your well. Complete the appropriate box(es) below based on your facility type. Complete "Other" if your facility type is not listed elsewhere.

SCHOOL/DAYCARE*		RELIGIOUS INSTITUTION		
Total number of employees		Total number of employees		
Average number employees per day		Average number of employees per day		
Maximum enrollment		Seating capacity		
Number of days staffed per week		Number of days staffed per week		
Kitchen	OY ON	No. of Parishioners that attend services		
*Note: For religious institutions and schools that also function as day care centers, provide information for both functions.		Kitchen	DY	□N
		Other functions during the week	DY	DN
		If yes, describe:		
RESTAURANT/ TAVERN		NURSING HOME/HOSPITAL/INSTI	TUTION	1
Hours/day & days/year of operation	1	Maximum number of beds		
Total number of employees		Total number of employees	100	
Average number employees per day		Average number of employees per day		
No. employees working 4 days per week		No. employees working 4 days per week		
Seating capacity		Resident employees		
Average number of customers per day		Non-resident employees		
DETAIL (INDUSTRIAL (COMMERCIAL	/-L-1			
RETAIL/INDUSTRIAL/COMMERCIAL	(circle one)	MULTI FAMILY DWELLINGS (APARTME	NT, CO	(ODN
Hours of operation		Number of one-bedroom units		
Total number of employees		Number of two-bedroom units		
No. employees working 4 days per week		Number of three-bedroom units		
Average number customers per day				
Food Service	OY ON	ALLOTMENT/SUBDIVISION		
Shopping Center	OY ON	Number of single-family homes		
Showers	DY DN	Number of multi-family homes		
CAMPGROUNDS/VACATION COT	TAGES	MOBILE HOME PARK		
Seasonal start date	April 1st	Number of spaces or lots		
Seasonal end date	Nov. 15th		13/31	
Number of year-round occupants	N/A	OTHER		
Maximum number of units	93	Hours of operation	100	
Number of units with water and sewer	93	Total number of employees		
Number of units with water only	0	Average number of employees per day		- 1
Number of units without water	0	No. employees working 4 days per week		1 11/
Number of shower and bathhouses	2	Average no. visitors/customers per day		
Water line usage in off season:		Seating capacity	7-5	-
Partially drained Fully drained Keep pressurized		Number of service connections		100
Describe additional amenities supplied with water:		Number of days open to the public		
Paid Water, Sewer, Electric & Lawn Service		Seasonal start date (if applicable)		
		Seasonal end date (if applicable)		
CLUB/MEETING HALL		Describe facility:		
Maximum occupancy				
Number of operating days per year				
Food Service	DY DN			



## Well #1 Well Log and Drilling Report May 23, 1968

### WELL DG AND DRILLING REPOPT

OR TYPEWRITER
DO NOT USE INK.

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
1562 W. First Avenue

Nº 364497

Columbus, Ohio 43212 County FAIR FIELO Township WALNUT Section of Township.... Address LINCOSTER Location of property Jackeye CONSTRUCTION DETAILS BAILING OR PUMPING TEST Pumping Rate 30 G.P.M. Duration of test.... Length of casing Casing diameter . Type of screen CASING Length of screen /2" Drawdown 9 ft. Date May 22, 1968 Type of pump.\_\_\_\_ Static level-depth to water .... Quality (clear, cloudy, taste, odor) C/EAR Capacity of pump..... Depth of pump setting Date of completion.... Pump installed by .... WELL LOG\* SKETCH SHOWING LOCATION Formations Locate in reference to numbered Sandstone, shale, limestone, To From State Highways, St. Intersections, County roads, etc. gravel and clay N. 0 Feet TO Ft. TER SIND & GROVE 33 NELL FINISHED A S. See reverse side for instructions \*If additional space is needed to complete well log, use next consecutive number en