



# Pond Construction & Alteration Review and Inspections

Jon Lindsay, RS

Henry County Health Department

Midwest Workshop, March 27, 2019

# Don't you wish it was this easy?





# History of Pond Water Supplies

- Had been an option for at least 40+ years



# History of Pond Water Supplies

- NW Ohio has areas where ground water supplies are either inadequate or have sulfur water that is not treatable





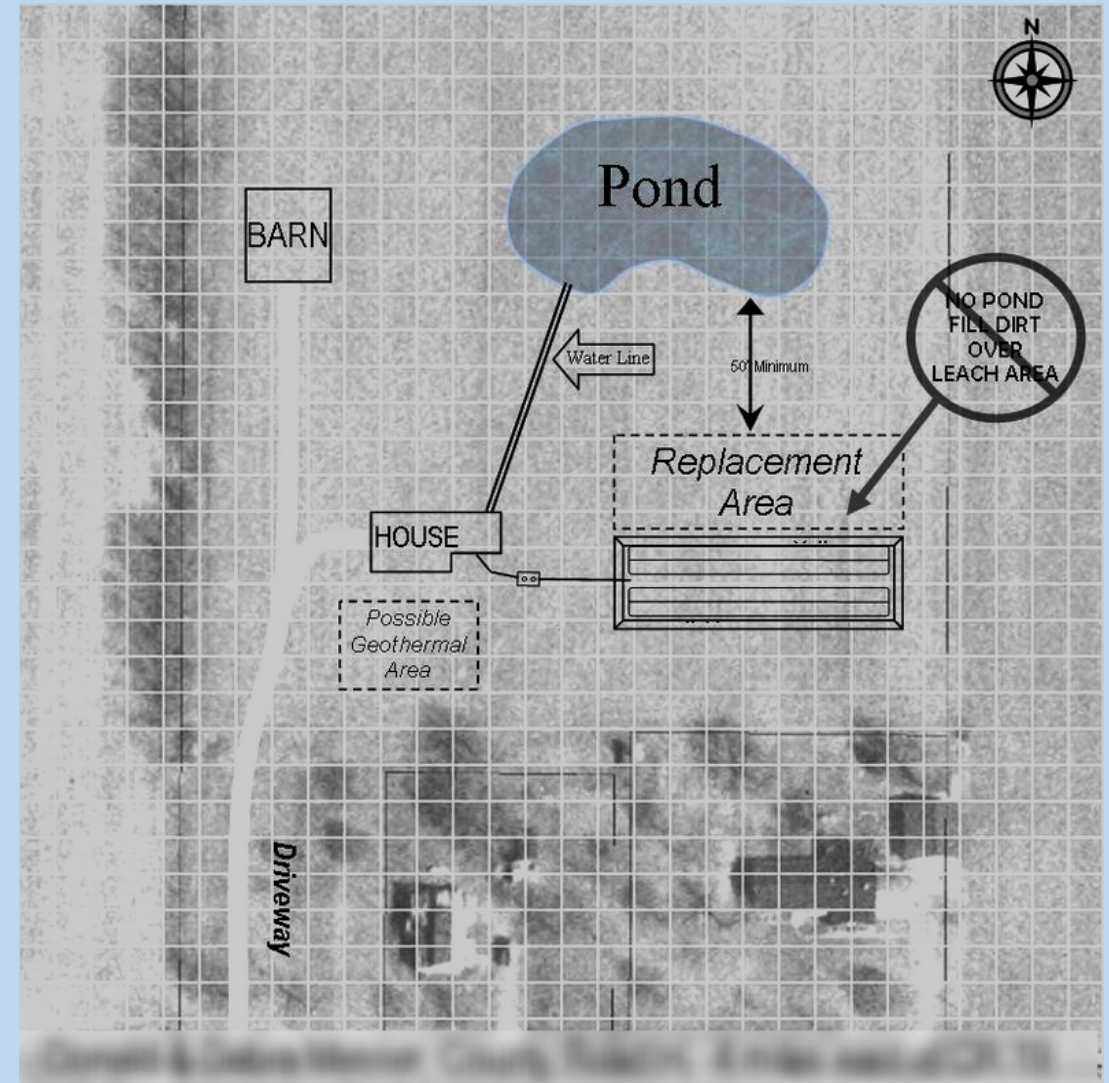
# History of Pond Water Supplies

- Approximately 15% of all water permits are for ponds
- Majority of residents do not drink pond water. Use bottle water



# When are ponds possible?

- Not considered a source unless groundwater inadequate or contaminates not feasible to treat
- If public water available, a new pond water supply would not be approvable





# Ownership of pond

- Pond and any watershed under one owner
- Cannot be owned by two people
- Property lines cannot cross pond
- These properties are 2.5 acres



# Isolation distances

- Must meet minimum distances in OAC 3701-28-07
  - Same as wells
- Watersheds (up gradient from pond)
  - Must have vegetation, but not used as pasture
  - Free of sources of contamination such as sewage systems, barns, etc...
  - Livestock prohibited from watershed
- Pond
  - No public recreational activities
  - 10 feet + from nearest building





# Sizing of the pond

- Watershed must be sufficient size
- Pond size minimum of .25 acre. Normally between .33 and .50 acre
  - Minimum of 8 feet deep over 50% of the area if less than .50 acre pond
  - Minimum of 8 feet deep over 25% of the area if more than .50 acre pond
- If a dam is used, spillways are needed

# Preventing pond leakage

- Sealing pond to reduce leakage
  - Flexible liner meeting ANSI/NSF Standard 54
  - Bentonite or native clay materials





# Preventing pond leakage

- Antiseep Collars
  - Used to prevent seepage along water line from pond









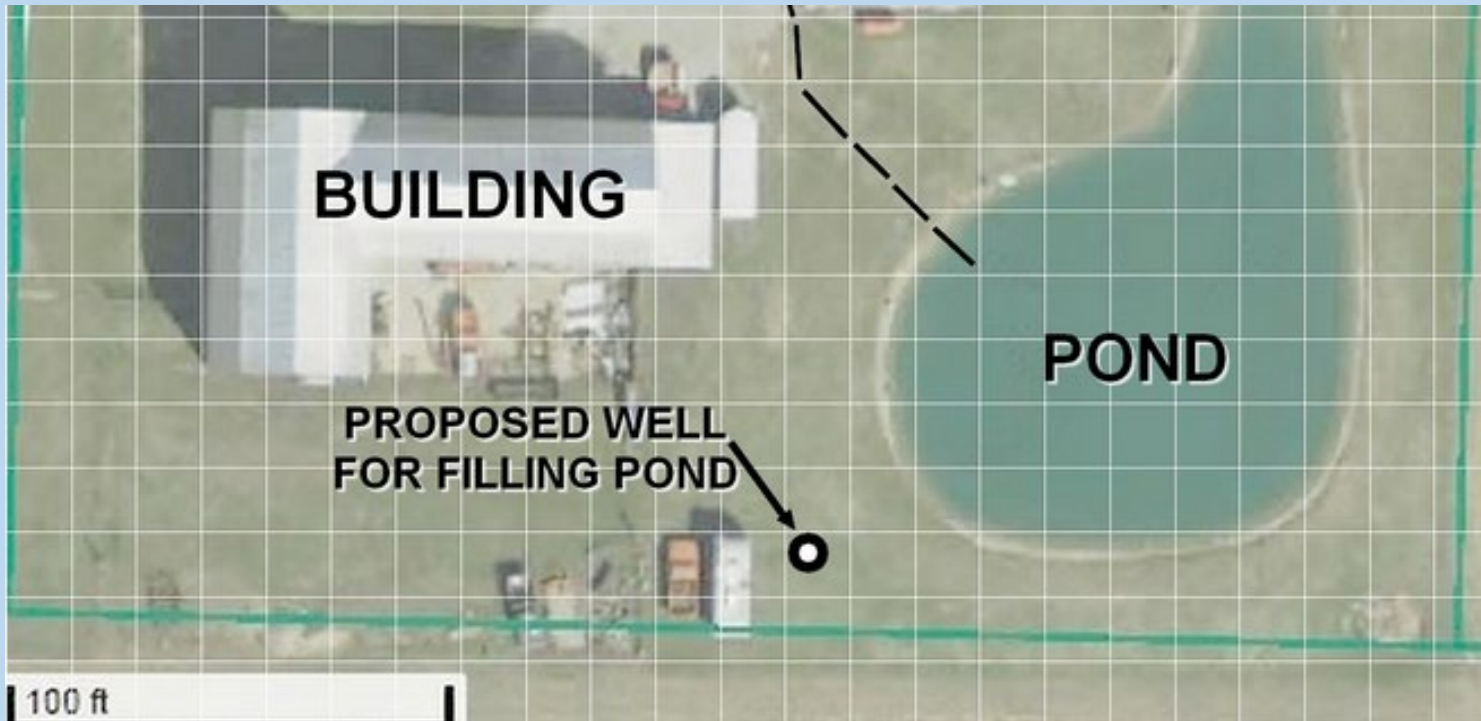






# Filling a pond

- Water well that is in compliance with rules





# Filling a pond

- Roof water runoff



# Filling a pond

- Pond cannot be filled from ditches, creeks or streams
  - Variance is needed to fill from above sources
  - Currently most initial pond fills are this method.







1843 Oakwood Avenue  
Napoleon, OH 43545

Phone: (419) 599-5545  
Fax: (419) 592-6400

[www.henrycohd.org](http://www.henrycohd.org)

## Pond Variance Request

Owner's Name:	Phone:
Owner Mailing Address:	
Address or Location of Pond:	Township:

### Evaluate Alternatives to Pond Water Source

Ohio Administrative Code section 3701-28-14 (A) states that "Ponds shall be considered as a source of water for human consumption at the discretion of the board of health, based on available ground water sources being adequate for the intended use or unacceptable due to the presence of naturally occurring or man-made contaminants that are not economically or technically feasible to treat, and on the ability of the property owner to meet all of the following requirements of this rule. A pond shall not be acceptable as a new water supply source when a public water supply is readily accessible to the property as determined by the board of health. The board of health can choose not to approve an application for a permit for a pond as a private water system if there is incomplete or inconclusive information about the suitability for a pond system at a specific site."

The Henry County Health Department does not recommend the installation of ponds as a potable water source. We will only consider issuing a permit for the installation of a pond for use as a potable water source upon careful evaluation of your request.

The Health Department requires that you state below those reasons that have led you to the conclusion that ground water sources are inadequate or unacceptable for potable use and as a result your desire to install a pond system. If a well installation attempt resulted in a dry hole, please attach a completed well log from your contractor documenting the dry hole and a sealing report.

### Pond Water Problems

1. Water used to fill ponds may contain any/all of the following: pesticides, herbicides, nitrates, sewage effluent, livestock yard drainage, wild animal and fowl contamination, road drainage (accidental spills), and industrial and commercial drainage.
2. Water in pond is subject to contamination from surface runoff, subsurface drainage, and drifting agriculture pesticides and herbicide sprays.
3. Treatment of water will not be adequate to remove viruses, bacteria spores, cryptosporidium, giardia or chemicals.
4. The treatment system requires routine maintenance and must be continuously functioning as designed.
5. Disinfectants will not kill cryptosporidium and giardia spores.
6. Ponds are subject to contamination from accidents or intentional sabotage.
7. Safety and liability issues are present due to accidental drowning, etc.

Generally, these problems are not found in deep well water. All water used in the home must be free of contaminants. Human contact with contaminated water may cause illness.

### Request for Variance from Ohio Administrative Code Chapter 3701-28 "Private Water Systems Rules".

Below is the section of the Ohio Administrative Code that you are requesting a variance from:

Section 3701-28-14 (D) (2) states, "A pond shall not be recharged by pumping water from field drain tiles or drainage ditches. Ponds shall not be recharged from onsite wastewater system discharges, curtain drains, sump pumps or washing machines."

Finding an acceptable source of water to initially fill a pond can be very difficult. The preferred method is to allow the pond to fill with rainwater. This process can take several years. Another acceptable alternative is to fill the new pond with water from an existing pond over a period of time. However, some property owners remove water from a near-by drainage ditch to fill the newly constructed pond. This practice is not recommended due to the numerous unknown natural and man-made contaminants that are present in these ditches. Testing of this water can be expensive. At a minimum the water should be tested for fecal coliform, nitrates, herbicides and pesticides to determine its quality. Do not pump from a drainage ditch for 2-3 days after a heavy rain. The rain may wash excess contaminants into the ditch thus making concentrations higher. Wait for two to three days after rainfall has stopped to begin pumping.

**Note: The Henry county board of health shall not consider a variance to Ohio Administrative Code section 3701-28-14 (B) which states:**

"The pond and watershed shall be under the complete control of one pond owner and the watershed shall be located on a parcel or parcels under one deed with the dwelling to which it is supplying water. If control of the watershed cannot be maintained on parcels under the same deed then other private water system sources shall be considered. The board of health shall not consider a variance to this rule."

Your signature below indicates that you have read and understand the conditions of this variance request and accept the inherent risks of utilizing a pond for a potable water source. It is your responsibility to disclose this information to future owners of this property.

Owner Signature \_\_\_\_\_ Date \_\_\_\_\_

-----Office Use Only-----  
-----

Staff Comments:

☐ Approved ☐ Disapproved

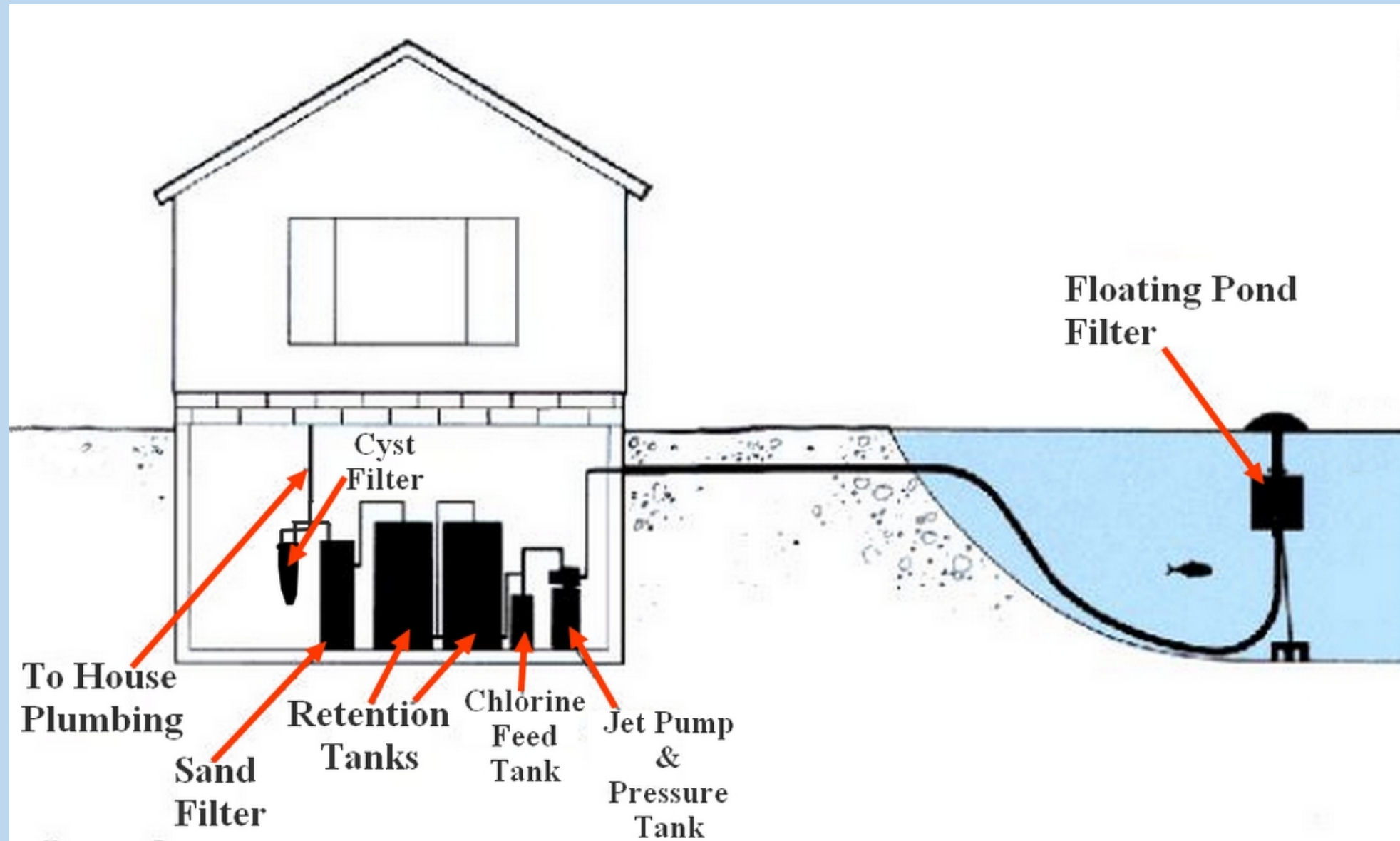
\_\_\_\_\_  
Director of Environmental Health

\_\_\_\_\_  
Date



# Pumping water from pond to home

- Submersible pump cased pond intake
  - Shall not be deeper than deepest part of pond
- Intake attached to floatation device suspended  $>18''$  and  $<36''$  below water surface at the deepest part of the pond
  - Non-corroding filter material/screen with openings .043 inch or smaller
  - Jet pump installed in house to pull water from the pond
- Flow rate of the system shall be no less than 10 gpm







# Floating Pond Filter

**Float available  
separately.**













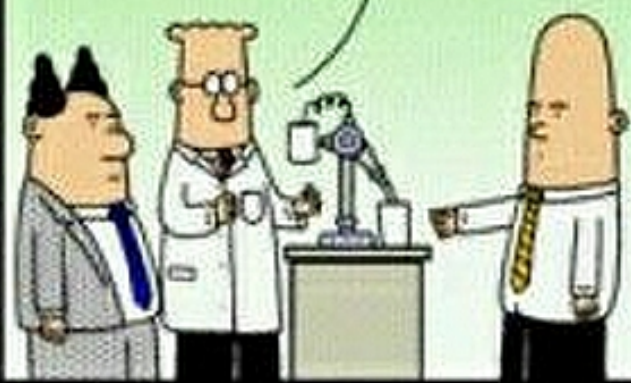


# Filtration

- Slow sand filter
- Pre coat filter
- Filter approved by the director
- **Pressurized rapid sand filter**
  - Type that is used most commonly



I INVENTED A FILTER  
THAT CAN TURN RAW  
SEWAGE INTO PURE  
DRINKING WATER IN  
SECONDS.



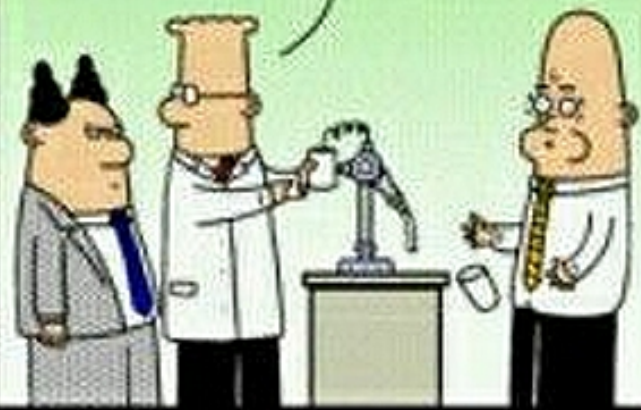
Dilbert.com DilbertCartoonist@gmail.com

GLUG  
GLUG  
GLUG



11-8-12 © 2012 Scott Adams, Inc. All Rights Reserved. Universal Uclick

THE CLEAN WATER  
ENDS UP HERE IN THE  
UPPER CONTAINER.





# Pressurized Rapid Sand filter

- Shall be used only with additional components for coagulation of smaller particles
- Granular media of approximately 12-20 micron filtration capacity
- Must contain at least 1.5 cu ft of sand or equivalent
- Sand effective size between 30-45 mm, with uniformity coefficient of less than 2.5

# Pressurized Rapid Sand filter with Coagulation

- Chemical coagulation. Chemical utilized must meet NSF Standard 60
- Retention Tank
- Rapid Sand Filter
- Cyst Filter (absolute 1-2 microns), if UV not being utilized



## POND PRIVATE WATER SYSTEM

Pressurized Rapid Sand Filter system  
with chemical coagulation and  
chlorine or iodine disinfection

Revised 5/2011



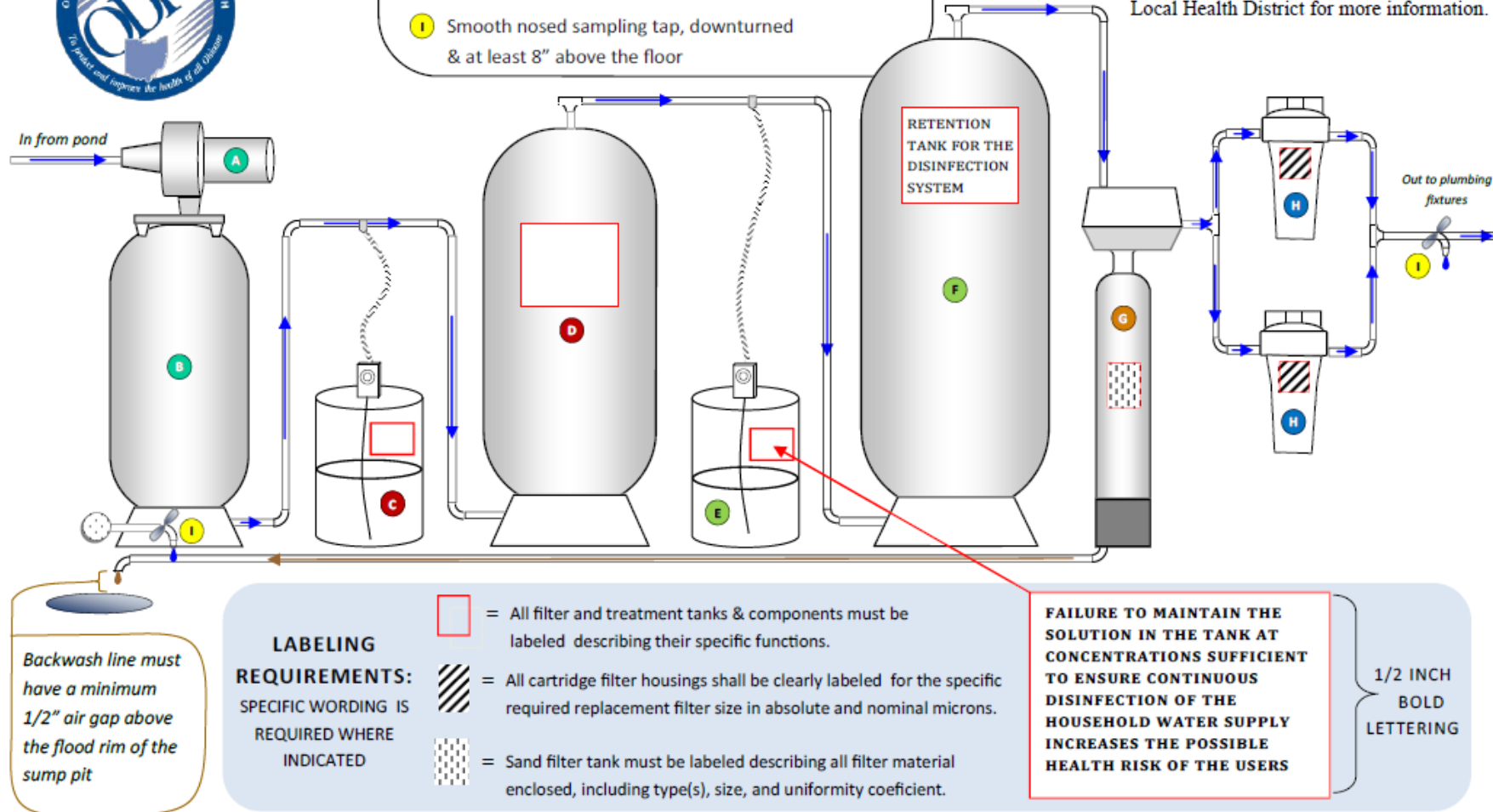
- COMPONENTS**
- A** Jet pump
  - B** Pressure Tank
  - C** Chemical coagulation meeting NSF standard 60
  - D** Coagulation retention tank
  - E** Chlorine/Iodine solution reservoir tank
  - F** Chlorine contact/retention tank, minimum 120 gallons
  - G** Pressurized rapid sand filter
  - H** Cyst reduction cartridge filter meeting NSF Standard 53
  - I** Smooth nosed sampling tap, downturned & at least 8" above the floor

## GENERAL DESIGN:

System must be sized to a minimum demand of 70 gallons per person per day, not less than 10 gallons per minute flow.

All pipe and pipe fittings must conform to NSF standard 61 and comply with OAC 3701-28-08(C) to 3701-28-08(E)

Treatment train shown here is a typical configuration.  
Other configurations are possible. Contact the Ohio  
Department of Health at (614) 644-7558 or your  
Local Health District for more information.



# Pressurized Rapid Sand filter with Step Filtration

- Rapid Sand Filter
- Nominal 10 micron cartridge filter
- Absolute 5 micron cartridge filter
- Cyst Filter (absolute 1-2 microns), if UV not being utilized



## POND PRIVATE WATER SYSTEM

Pressurized Rapid Sand Filter system with cartridge filters and chlorine or iodine disinfection

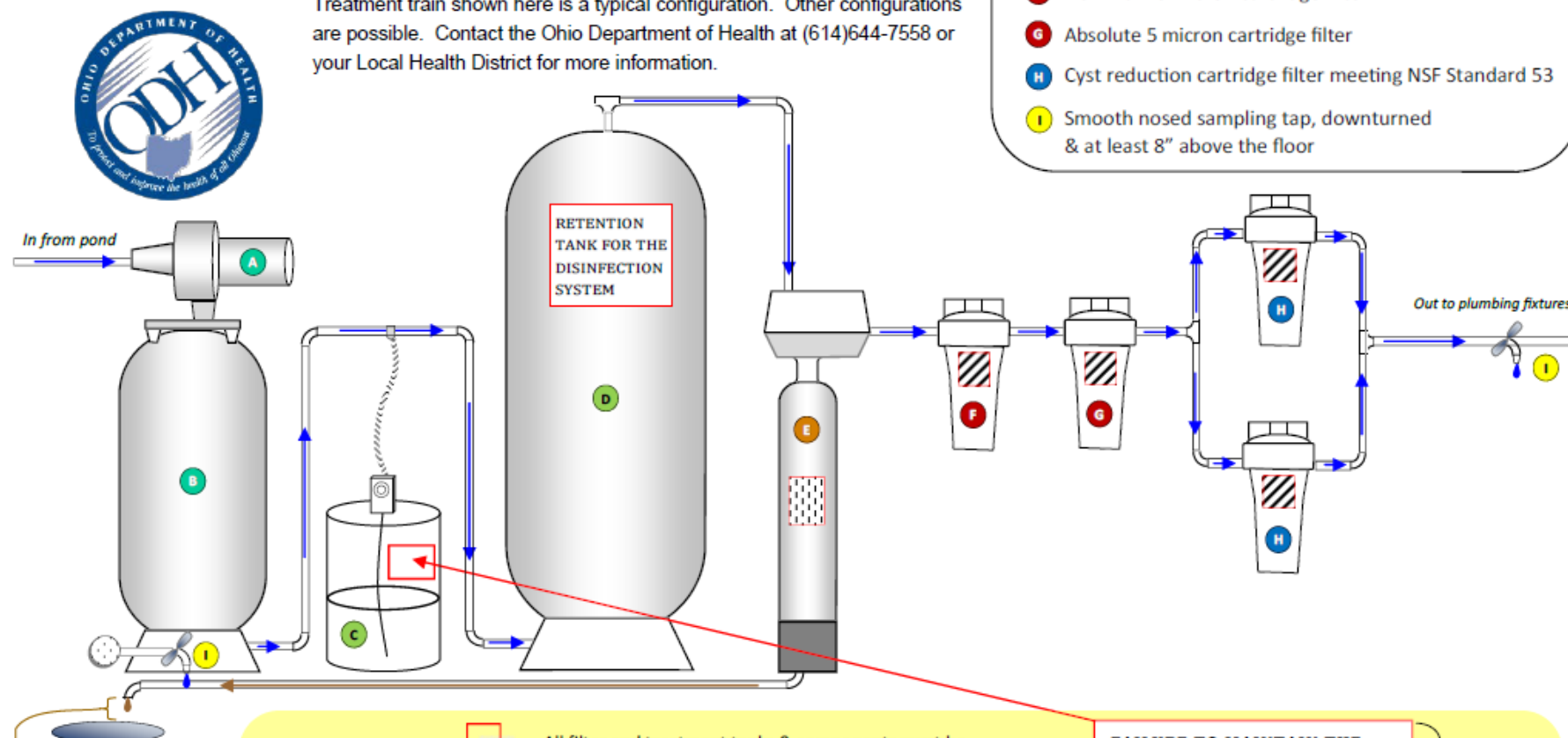
Revised 5/2011

## GENERAL DESIGN:

System must be sized to a minimum demand of 70 gallons per person per day, not less than 10 gallons per minute flow.

All pipe and pipe fittings must conform to NSF standard 61 and comply with OAC 3701-28-08(C) to 3701-28-08(E)

Treatment train shown here is a typical configuration. Other configurations are possible. Contact the Ohio Department of Health at (614)644-7558 or your Local Health District for more information.



Backwash line must have a minimum 1/2" air gap above the flood rim of the sump pit

**LABELING REQUIREMENTS:**  
SPECIFIC WORDING IS REQUIRED WHERE INDICATED



= All filter and treatment tanks & components must be labeled describing their specific functions.



= All cartridge filter housings shall be clearly labeled for the specific required replacement filter size in absolute and nominal microns.



= Sand filter tank must be labeled describing all filter material enclosed, including type(s), size, and uniformity coefficient.

**FAILURE TO MAINTAIN THE SOLUTION IN THE TANK AT CONCENTRATIONS SUFFICIENT TO ENSURE CONTINUOUS DISINFECTION OF THE HOUSEHOLD WATER SUPPLY INCREASES THE POSSIBLE HEALTH RISK OF THE USERS**

1/2 INCH  
BOLD  
LETTERING

- COMPONENTS**
- A** Jet pump
  - B** Pressure Tank
  - C** Chlorine or Iodine solution reservoir tank
  - D** Disinfection retention tank, minimum 120 gallons
  - E** Pressurized rapid sand filter
  - F** Nominal 10 micron cartridge filter
  - G** Absolute 5 micron cartridge filter
  - H** Cyst reduction cartridge filter meeting NSF Standard 53
  - I** Smooth nosed sampling tap, downturned & at least 8" above the floor

# Continuous disinfection & cyst filtration

- Required on ponds
- Cyst filters flow rate of not less than 10 gpm
- Disinfectants shall be available
- Chemical disinfectants shall be measureable by user



# Labeling of treatment components

- Each component shall be properly labeled by the contractor

**REPLACEMENT FILTER  
CARTRIDGE MUST BE  
*ABSOLUTE 1 MICRON*  
FOR PROPER REDUCTION  
OF PROTOZOANS AND CYST.**

*Ohio Administrative Code*

*Rule 3701-28-15*

**CALL THE LOCAL HEALTH  
DEPARTMENT FOR MORE  
INFORMATION**

# Labeling of treatment components

- Each component shall be properly labeled by the contractor

---

**PRESSURIZED RAPID SAND FILTER**

**POND FILTRATION SYSTEM**

*Ohio Administrative Code Rule 3701-28-14*

*Call your local health department for more information.*



# Disinfectant system

- Shall be applied prior to the storage/retention tank(s)
- Disinfectant tanks shall be labeled
  - Warning Label
  - Identification Label



# Disinfectant system: Contact Tanks

- 1-3 family dwellings:
  - Minimum of 120 gallons per household
- Buildings with <24 people or more than 3 service connections
  - Tank size shall ensure 8 minutes of contact time
- Not required if Chlorination or Iodination is used after UV or Ozone



# Chlorine Disinfection System

- Chlorine shall be added to satisfy demand
- Ct value shall be 4 or greater
  - Ct value (Contact time X free chlorine residual in mg/l)
- Free Chlorine residual shall be .4 mg/l after 8 minutes contact time
- Test kit for owner provided by contractor

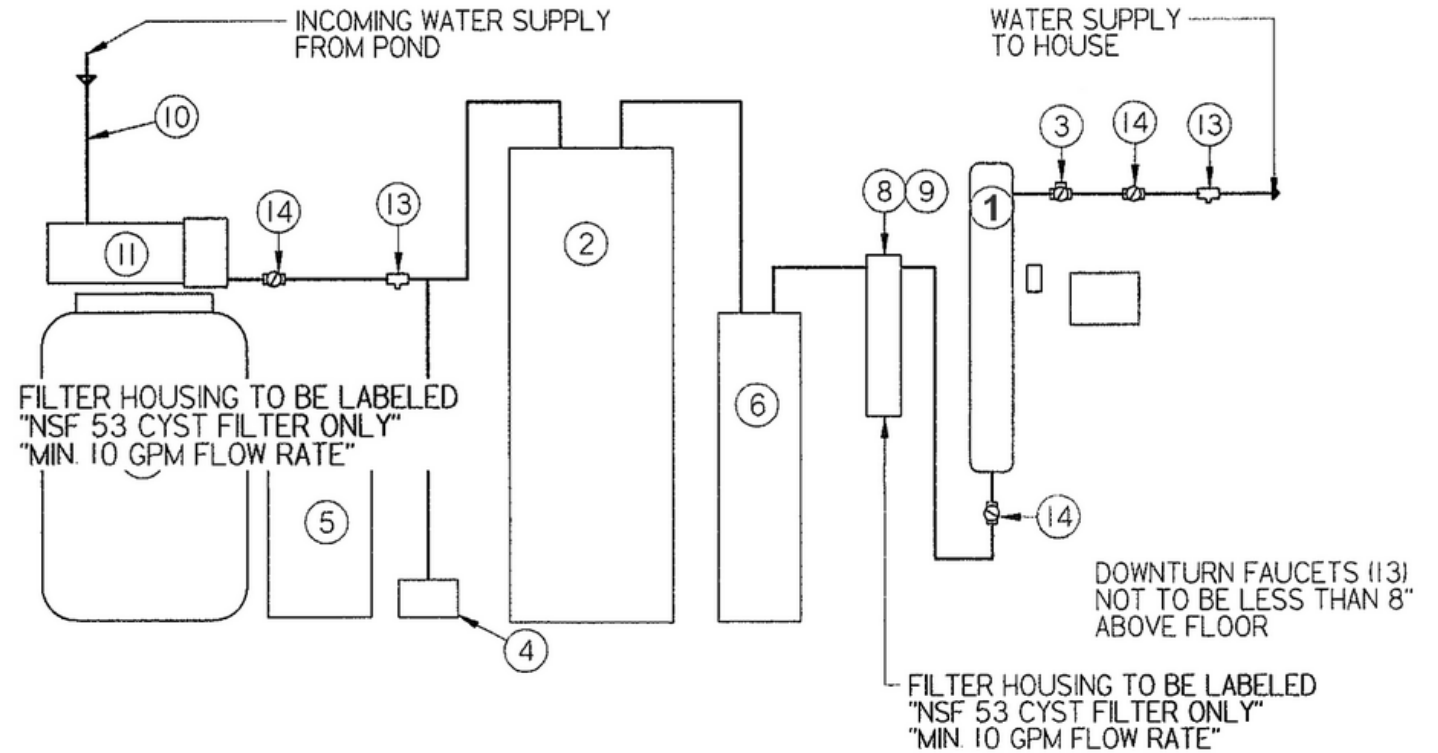
# UV Disinfectant System

- Shall meet ANSI/NSF standard 55, Class A
  - Class B systems shall not be used for continuous disinfection
- Automatic Shut-off device or warning device if UV device not functioning
- Influent water shall be treated to manufacturer's requirements
- Absolute 5 micron filter shall be installed prior to UV device
- If water system used in more than one dwelling:
  - Add chlorination with residual of .2 mg/l or
  - Each dwelling must have its own UV device



# Typical UV Disinfectant System

FIND	DESCRIPTION	SUPPLIER / SUPPLIER PART NUMBER	QTY
1	TROJAN UV MAX PRO 10, 10 GPM	home-water-purifiers-and-filters.com	1
2	80 GALLON FIBERGLASS CONTACT TANK	WATER SOLUTIONS, OTTAWA OHIO	1
3	SOLENOID EMERGENCY WATER SHUT-OFF VALVE	home-water-purifiers-and-filters.com	1
4	STENNER CHEMICAL FEED PUMP FOR ALUM INJECTION	WATER SOLUTIONS, OTTAWA OHIO	1
5	15 GALLON CHEMICAL STORAGE TANK FOR ALUM	WATER SOLUTIONS, OTTAWA OHIO	1
6	10" X 47" 1.25 FT <sup>3</sup> LAYERED SAND FILTER WITH FLECK VALVE	WATER SOLUTIONS, OTTAWA OHIO	1
7	ALUM	WATER SOLUTIONS, OTTAWA OHIO	1
8	4" X 20" NSF CYST REDUCTION FILTER	WATER SOLUTIONS, OTTAWA OHIO	1
9	4" X 20" BIG BLUE FILTER HOUSING	WATER SOLUTIONS, OTTAWA OHIO	1
10	1-1/4" POLY. FRESH WATER INTAKE SUPPLY LINE	LOWES	AS REQD
11	SHALLOW WELL JET PUMP	EXISTING	1
12	EXPANSION TANK	EXISTING	1
13	DOWNTURN FAUCET	LOWES	2
14	BALL VALVE	LOWES	3
15	FLOATING WATER INTAKE	MACDONALD SUPPLY	1



PROPOSED WATER TREATMENT SYSTEM LAYOUT / NOT TO SCALE

# Iodine Disinfectant System

- Iodine shall be added to satisfy demand
- Ct value shall be 10 or greater
  - Ct value (Contact time X free iodine residual in mg/l)
- Free Iodine residual shall be .4 mg/l after 8 minutes contact time
- Test kit for owner provided by contractor

# Ozone Disinfectant System

- Sufficient ozone shall be added to satisfy demand
- Ct value shall be 0.6 or greater
  - Ct value (Contact time X residual ozone in mg/l)
- Water contact shall use venture and cyclonic bubble diffuser
- Minimum residual of 0.1 mg per unit after 6 minutes contact time
- Ozone generators shall be designed to prevent ozone gas leakage
- Ozone generators shall have air flow meters
- Generation chambers shall be Stainless steel or equivalent
- Ozone Generators shall have corona arc indicating lights



# Existing Ponds not being used for water supply

- Would require new Private Water System permit
- Must meet all isolation distances



# Permitting of a Pond

- Permit application
  - Pond construction plan from pond excavator
  - Disinfection and Filtration System plan from treatment contractor
  - Pond variance request
    - 3701-28-14(D)(2) regarding filling pond from drainage ditches
- Site Evaluation

# Pond construction plan from pond excavator

## Private Water System – Pond or Spring Construction Plan

This form is used *in addition* to the Permit Site Plan HEA 5204 as per OAC rule 3701-28-03 (E) and (F).

This form should be completed for the construction details of Ponds or Springs.

Property Street Address (include City and Zip Code) 11296 County Road J, Malinda, O	Township Morroe	Health District Henry Co.
Property Owner Nate Wilhelm	PWS Contractor(s) Sand Ridge Exc	Form prepared by

NOTE: This form may be used *in addition* to the Permit Site Plan HEA 5204 as per OAC rule 3701-28-03 (E) and (F).

Complete all of the following information for work to be performed.

<b>A N</b> Sketch or provide a topographic map section with proposed pond or spring location and indicate all water shed flow directions	
--	--



# Disinfection & Filtration System plan

## Private Water System – Disinfection/Filtration Systems Plan

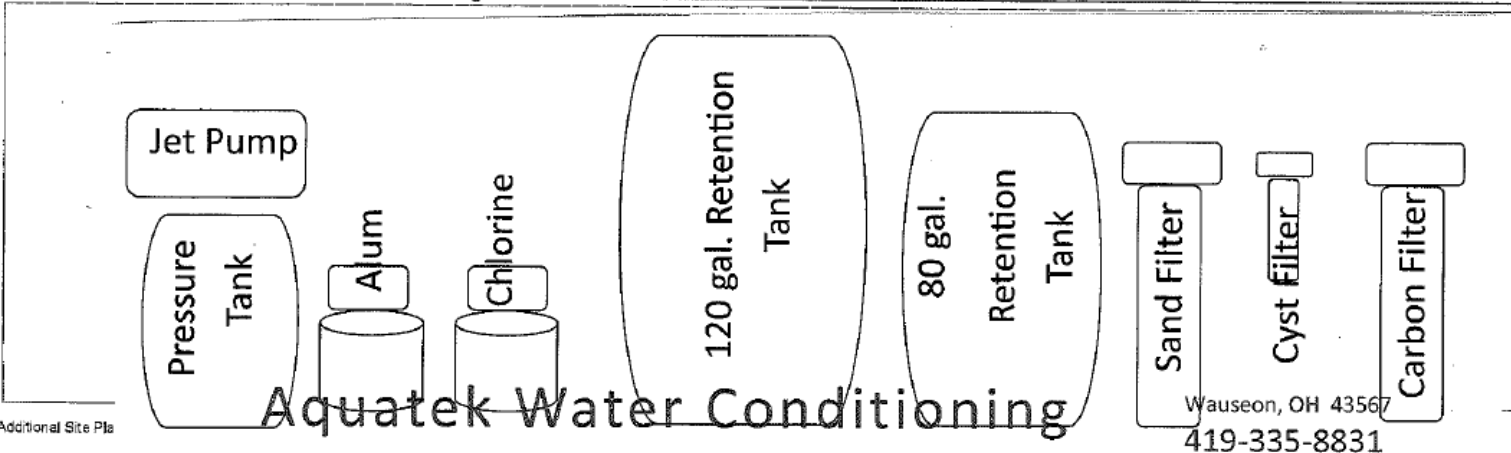
This form is used in addition to the Permit Site Plan HEA 5204 as per OAC rule 3701-28-03 (E) and (F).

This form should be completed for Ponds, Cisterns, and Springs or any other system using continuous disinfection or filtration systems.

Property Street Address (include City and Zip Code) <u>11296 Co Rd J, Malinta OH 43535</u>		Township	Health District <u>Henry County</u>
Property Owner <u>Nate Wilhelm</u>	PWS Contractor(s) <u>Aquatek Water Conditioning</u>	Form prepared by <u>Heather Wilson-Aquatek</u>	

List and provide details of all applicable pumping and treatment devices. Neatly sketch and label the listed components in order from water source to the end of treatment.

<b>Pond Intake:</b> <input checked="" type="checkbox"/> Floating <input type="checkbox"/> Cased – Indicate depth casing to be set: _____		<b>Disinfection System:</b> <input checked="" type="checkbox"/> Chlorine <input type="checkbox"/> Iodine <input type="checkbox"/> Ultraviolet <input type="checkbox"/> Ozone		<b>Filtration System:</b> <input type="checkbox"/> Slow Sand <input checked="" type="checkbox"/> Pressurized Rapid Sand <input type="checkbox"/> Pre-coat <input type="checkbox"/> Other: _____	
ID	Component	Make/Model #/Capacity/Dimensions	ID	Component	Make/Model #/Capacity/Dimensions
	Floating pond filter	FPP-16 Arionwater		Retention Tank 2	UT120 120 gallon Wellmate
	Water System Pump	3/4 Horse Myers		Rapid Sand Filter	1.5 cu. ft. Aquatek
	Pressure Tank	WM9 30gallon Wellmate		Slow Sand Filter	
	Coagulation Chemical Tank	15gallon Solution Tank		Cartridge Filter(s) qty. _____	
	Chemical Pump 1	U141 30gpd UniDose		Cyst Reduction Filter(s) qty. _____	4'12x20 1m Absolute
	Retention Tank 1	UT80 80gallon Wellmate		Pre-coat Filter	
	Chemical Disinfectant Tank	15 gallon Solution Tank		Ozone Device	
	Chemical Pump 2	U141 30gpd UniDose		Ultraviolet Light	



# Permitting of a Pond

- Longer process to issue permit since forms come from multiple contractors
- Permit may expire before connected to house. Could take several years
  - Alteration permit would be needed if initial permit expired before system is complete.

# Pond Alteration Permit

- Could be used for expanding or changing shape of existing pond
  - If pond being drained and excavated again, would require update to treatment system
- Updating existing water treatment system to current requirements
- Adding well to fill existing pond water supply



**NO, YOUR PERMIT TO CONVERT THIS  
TO A WATER SYSTEM HAS BEEN DENIED**



# Inspections and Field Review

- Normally done when water sample is collected
- Verify location of pond and isolation distances
- Pond is full of water
- Verify that all components are labeled correctly
- Sample spigot provided at the end of the treatment system
  - Normally installed prior to any activated charcoal filter.
- Test for disinfectant residual for Chlorine and Iodine





# Older Systems





# Older Systems



# Treatment Systems Chlorine





# Treatment Systems Chlorine





# Treatment Systems Chlorine



# Treatment Systems Chlorine





# Treatment Systems Chlorine





# Treatment Systems Chlorine



# Treatment Systems Chlorine





# Treatment Systems Chlorine





# Treatment Systems Chlorine



# Treatment Systems Iodine



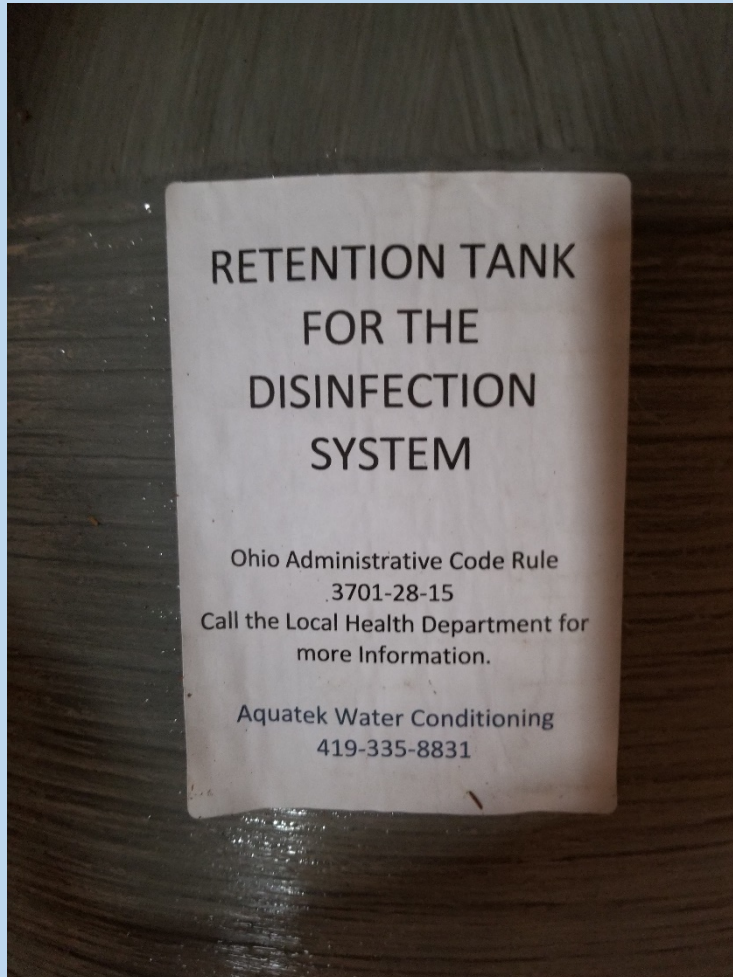


# Cyst Filters





# Component Labels Examples



# Pond excavators & water treatment companies

- All contractors must be registered as a private water system contractor with the Ohio Department of Health

# Ohio Department of Health

## Contractor Activity Status Report

dEDate

Well

Spring

Pump

Water

Cistern

Pond

Sealing

### HENRY

000563	Christman Brothers Builders P.O. Box 92 Deshler OH 43516	Wayne Christman (419) 278-2856 December 17, 2018	X								X
2019											
002020	Culligan Water Conditioning and Bottled 500 Independence Dr. Napoleon OH 43545	Wayne S Michaelis (419) 592-7936 December 20, 2018	X		X		X	X	X		
2019											
001371	Elling's Plumbing & Heating, Inc T-487 State Route 108 Napoleon OH 43545	Richard Elling (419) 598-8991 January 14, 2019	X				X	X	X		
2019											



# Pond excavators & water treatment companies

- No work can begin until permit is issued
- Many times pond is started years before owners are ready to build home





# Water Samples

- Completion forms for treatment system and pond construction must be submitted before sample is scheduled
- Water sample spigot must be installed



# Administrative Summary

- ODH Administrative Summary

Private Water Systems					Print Form
<b>ADMINISTRATIVE SUMMARY</b>				Permit #	
Health Department Use Only					
<b>I. Well Log</b>	Well log #	Date Received	Reviewed by		
<b>II. Sealing Report</b>	Report #	Date Received	Reviewed by		
<b>III. Job Status / Completion Forms</b>	PWS Contractor 1	Job Status - Date Received	Completion Form - Date Received		
	PWS Contractor 2	Job Status - Date Received	Completion Form - Date Received		
	PWS Contractor 3	Job Status - Date Received	Completion Form - Date Received		
<b>IV. Final Inspection</b>	Date Performed	Performed by	Worksheet Attached <input type="checkbox"/> Yes <input type="checkbox"/> No		
	Observations, Noted violations, and Corrective Actions (include dates and information of all performed inspections)				
<b>V. Variance</b> – Attach the variance request and board of health decision letter to this permit.	Variance Requested OAC 3701-28-	Date of Request	Approved by Board of Health <input type="checkbox"/> Yes <input type="checkbox"/> No	Date Approved / Denied	
	Comments				
<b>VI. Water Samples</b>	Bacteria Sample One	Collected by	Date	Sample Collection Point	Results
	Bacteria Sample Two	Collected by	Date	Sample Collection Point	Results
	Bacteria Sample Three	Collected by	Date	Sample Collection Point	Results
Water Sample Comments					
<b>Nitrates</b>					
Nitrate Pre-screen Results	Collected by	Date	Sample Collection Point	Results	
Nitrate Laboratory Analysis / Results	Collected by	Date	Sample Collection Point	Results	
<b>VII. Private Water System Approval / Disapproval</b>	<input type="checkbox"/> System approved	Sanitarian Signature			Date of approval
	<input type="checkbox"/> System disapproved	Sanitarian Signature			Date of disapproval
	Reason for Disapproval				
	Enforcement action taken				

# Administrative Summary

- HCHD version of the ODH Administrative Summary

Private Water Systems <b>ADMINISTRATIVE SUMMARY</b> Health Department Use Only				Permit#
<b>I. Permit Application</b>				
Owner's Name	Property Address or Location		Audit #	
Date Complete Application Received		Date of Site Review	Date Permit Issued	
Variance requested OAC 3701-28-_____	Date Variance Requested	Date Extension Approved		
Variance Approval by BOH / EH Director, Status / Dates <input type="checkbox"/> Approved on _____ <input type="checkbox"/> Denied on _____		Application Notes/Comments:		
<b>II. Completion Paperwork</b> * WP= Well Pump P= Pond CD= Continuous Disinfection/Filtration CH= Cistern/Hauled Water S=Spring				
Drilling Contractor ( Well Log )		Well Log #	Date Received	Reviewed By
Sealing Contractor	*JS Type (circle one)	Sealing Report #	Date Received	Reviewed By
Contractor ( Job Status form )	WP P CD CH S	Date Work Completed	Date Received	Reviewed By
Contractor ( Job Status form )	WP P CD CH S	Date Work Completed	Date Received	Reviewed By
Contractor ( Job Status form )	WP P CD CH S	Date Work Completed	Date Received	Reviewed By
<b>III. Site Inspections &amp; Samples</b>				
Date of visit	Inspector/Sampler	Sample Collection Point: <input type="checkbox"/> Pressure Tank <input type="checkbox"/> Other: _____		
Date Sample results sent	Sent to: <input type="checkbox"/> Owner <input type="checkbox"/> Contractor	<input type="checkbox"/> Bacteria Sample # _____ Result: _____	NO3: <input type="checkbox"/> Prescreen <input type="checkbox"/> Lab Result: _____	<input type="checkbox"/> Other _____ Result: _____
Observations, Noted Violations, and Corrective Actions:				
Date of visit	Inspector/Sampler	Sample Collection Point: <input type="checkbox"/> Pressure Tank <input type="checkbox"/> Other: _____		
Date Sample results sent	Sent to: <input type="checkbox"/> Owner <input type="checkbox"/> Contractor	<input type="checkbox"/> Bacteria Sample # _____ Result: _____	NO3: <input type="checkbox"/> Prescreen <input type="checkbox"/> Lab Result: _____	<input type="checkbox"/> Other _____ Result: _____
Observations, Noted Violations, and Corrective Actions:				
Date of visit	Inspector/Sampler	Sample Collection Point: <input type="checkbox"/> Pressure Tank <input type="checkbox"/> Other: _____		
Date Sample results sent	Sent to: <input type="checkbox"/> Owner <input type="checkbox"/> Contractor	<input type="checkbox"/> Bacteria Sample # _____ Result: _____	NO3: <input type="checkbox"/> Prescreen <input type="checkbox"/> Lab Result: _____	<input type="checkbox"/> Other _____ Result: _____
Observations, Noted Violations, and Corrective Actions:				
<b>IV. Final Private Water System Status</b>				
<input type="checkbox"/> System Approved By:		Date of Approval	Enforcement Actions:	
<input type="checkbox"/> System Disapproved By		Date of Disapproval		
Reason(s) for Disapproval <input type="checkbox"/> Permit expired <input type="checkbox"/> Code Violation <input type="checkbox"/> Other _____				



# Decommissioning Pond Water Supplies

- If pond is to be no longer utilized, physically disconnect the water line from any plumbing connections
- Pond does not have to be filled in
- Does not happen too often
  - City water provided

# Recreational Ponds

- If pond is not be used as a water supply, then no permit is needed
- Are constructed exactly like a Private Water supply pond, contractors even install a water line during excavation

# Pros and Cons of Ponds

- Pros
  - Basically unlimited supply
  - Does not need water softener
- Cons
  - Maintenance of pond
  - Maintenance of treatment system
  - Safety concerns
  - Water quality can change





Any questions?

