Environmental Management Division
Bureau of Drinking & Groundwater

Public Water Supply Program

The following attached forms were created to reflect the 2010 Chapter NR 811 Wis. Admin. Code revision and to facilitate timely and effective plan review:

- Public Well Redevelopment /Rehabilitation Approval Request, No. 3300-269
- Pump Discharge Line Submittal Checklist, No. 3300-296
- Pressure Tank Submittal Checklist, No. 3300-299
- Reservoir Submittal Checklist, No. 3300-303
- Pumphouse/Pumping Station Submittal Checklist, No. 3300-304

The forms are required for water system plan review pursuant to ch. NR 811.08 (1), Wis. Adm. Code. The authority to promulgate and enforce these forms is contained in chs. 280, and 281, Wis. Stats. These documents may also be useful for external stakeholders; including well drillers, pump installers, water system owners, consultants and Professional Engineers, to help familiarize themselves with the Wisconsin Administrative Code requirements.

This draft forms were developed by the Public Water Engineering Section Plan Review staff and have been shared with other Drinking Water and Groundwater (DG) Program staff and externals for comments. The DG Program is now soliciting comments from the public on these forms, for a 21-day notice period. Once the 21-day notice period is complete, all comments will be considered, revisions will be made to the forms as needed, and the final forms will be made available to internal and external stakeholders on the DNR website for use. Comments related to this draft form should be sent to: Cathrine.Wunderlich@wisconsin.gov.

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State of Wisconsin
Department of Natural Resources
Bureau of Drinking Water and Groundwater, DG/5
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Public Well Redevelopment / Rehabilitation Approval Request

Form 3300-269 (12/15)

Notice: This form is authorized by ss. 280.11, 281.11, 281.19 (1) and (2), and 281.41, Wis. Stats., and ss. NR 108.04 (2)(a) and 811.08 (1), Wis. Adm. Code. Completion of this form or a similar form approved by the Department of Natural Resources (DNR) is mandatory. Personal information collected will be used for administrative purposes and may be provided to requesters to the extent required by Wisconsin's Open Records Law [ss. 19.31-19.39, Wis. Stats.]. Unless otherwise noted all citations refer to Wis. Adm. Code.

A. General Information

Water System Name	Water System Owner Name (if different than Water System Name)

B. Water System Representative (examples: clerk, sanitary district president, owner)

Name	Title		
Street Address	**City**	**State**	**ZIP Code**
Phone Number (include area code)	**Fax Number** (include area code)	**Cell Number** (include area code)	**Email Address**

C. Water System Contact (examples: operator, water superintendent)

Name	Title		
Street Address	**City**	**State**	**ZIP Code**
Phone Number (include area code)	**Fax Number** (include area code)	**Cell Number** (include area code)	**Email Address**

D. Designer Information

Project Designer Name	Firm Name		
Street Address	**City**	**State**	**ZIP Code**
Phone Number (include area code)	**Fax Number** (include area code)	**Cell Number** (include area code)	**Email Address**

E. Project Information (space for additional comments on page 5)

Well No.	WI Unique Well No.	County	Is a copy of the well construction report attached? ◯ Yes ◯ No

Provide the three most recent raw water arsenic test results, if available and applicable:

Date	Arsenic Result

Describe any special measures, including modified disinfection procedures, that will be taken if arsenic concentrations are a concern. ◯ N/A

Indicate the maximum strength of the chlorine concentration to be used in mg/l.

Reason(s) for redevelopment/rehabilitation:

Summary of Procedures: (include steps to be performed in order)

F. Redevelopment / Rehabilitation Type (select all that apply and complete the corresponding section for each box selected)

☐ 1. Physical Conditioning ☐ 3. Chemical Conditioning ☐ 5. Impulse generation
☐ 2. Blasting ☐ 4. Hydrofracturing ☐ 6. Other: _____

1. Physical Conditioning (e.g., wire brushing, bailing out debris, surging with or without chemicals, etc.)

Will physical conditioning be conducted? ◯ Yes ◯ No

a) Procedures proposed: (Summary of procedures and equipment to be used)

2. Blasting (s. NR 811.12(11))

Will blasting be conducted? ◯ Yes ◯ No

a) Procedures: (Summary of procedures and equipment to be used)

b) Charges: (use spaces below to tabulate the proposed charges as applicable)

Number of charges	Size	Location (depth)	Number of charges	Size	Location (depth)

c) Provide details for any prima-cord to be used:

d) Will blasting occur at least 100 feet away from the grouted protective casing? ◯ Yes ◯ No

If no, provide information justifying a variance request:

e) Will all material dislodged during the blasting be removed from the well? ◯ Yes ◯ No

f) Will proper safety measures be taken to protect workers and surrounding structures? ◯ Yes ◯ No

g) Will blasting be conducted under the supervision of a blaster licensed by the DNR of Safety and Professional Services under s. SPS 305.20? ◯ Yes ◯ No

Blaster Name	Firm Name (if applicable)	Blaster DSPS License No.

3. Chemical Conditioning (s. NR 811.12(12))

Will chemical conditioning be conducted? ◯ Yes ◯ No

a) Procedures: (Summary of procedures and equipment to be used, including detention times in the well)

3. Chemical Conditioning (s. NR 811.12(12)) (cont'd)

b) Treatment chemicals to be used: (use spaces below for each chemical as applicable)

	Chemical Name	Volume of Chemical	Volume of Water	Reason Used	Strength (if applicable)	ANSI/NSF Std. 60 Certified?	Addition Method	Neutralization Method	Disposal Location
1.						◯ Y ◯ N ◯ N/A			
2.						◯ Y ◯ N ◯ N/A			
3.						◯ Y ◯ N ◯ N/A			
4.						◯ Y ◯ N ◯ N/A			
5.						◯ Y ◯ N ◯ N/A			

c) If acid is used, will the procedure include pH monitoring of nearby private or public wells, use of an inhibitor to protect the metal portions of the well and pump, complete removal of the acid from the well, neutralization of the spent acid, and proper disposal of the spent acid? ◯ Yes ◯ No ◯ N/A

Comments:

4. Hydrofracturing (s. NR 811.12(13)(a))

Will hydrofracturing be conducted? ◯ Yes ◯ No

a) Procedures: (Summary of procedures, equipment and materials to be used)

b) Chemicals to be used: (use spaces below for each chemical as applicable)

	Chemical Name	Volume of Chemical	Volume of Water	Reason Used	Strength (if applicable)	ANSI/NSF Std. 60 Certified?	Addition Method	Neutralization Method	Disposal Location
1.						◯ Y ◯ N ◯ N/A			
2.						◯ Y ◯ N ◯ N/A			
3.						◯ Y ◯ N ◯ N/A			
4.						◯ Y ◯ N ◯ N/A			
5.						◯ Y ◯ N ◯ N/A			

4. Hydrofracturing (s. NR 811.12(13)(a)) (cont'd)

c) Pressures to be used:

d) Packer setting depths:

e) If physical additives to the water are used, will any material used be clean washed inert, nontoxic material (such as sand)? ◯ Yes ◯ No ◯ N/A

If yes, describe the additives:

f) Are there any bedrock wells within 100 feet of the well to be hydrofractured? ◯ Yes ◯ No ◯ N/A

If yes: 1) Will the well owner of the existing wells be notified 48 hours prior to the commencement of the hydrofracturing procedure? ◯ Yes ◯ No ◯ N/A

g) Will the upper packer be placed at a depth more than 20 feet below the bottom of the casing? ◯ Yes ◯ No ◯ N/A

If no, provide information justifying a variance request:

5. Impulse Generation (s. NR 811.12(13)(b))

Will impulse generation be conducted? ◯ Yes ◯ No

a) Impulse method, equipment and gases to be used: (If chemicals are also to be used, also fill out section 3, Chemical Conditioning. Describe how any chemical addition will be incorporated into the impulse processes.)

b) Number of passes to be used:

c) Depths in open drillhole or well screen that the procedure will be started and stopped:

d) PSI strength of each impulse:

e) Number of impulses per foot:

f) Will impulse strength be maintained low enough to prevent structural damage to well casings, grout, and screens? ◯ Yes ◯ No

6. Other ◯ Yes ◯ No

Provide details for any proposed well rehabilitation work that is not covered by the requirements listed in ch. NR 811.

G. Miscellaneous Information (applicable to every submittal)

1. Describe any before or after well televising work to be performed:

Will the well be thoroughly disinfected, pumped to waste, and safe bacteriological water samples collected in accordance with s. NR 810.09(4)? ◯ Yes ◯ No

If yes, the well will be pumped for _____ hours.

2. Describe how and where any waste (e.g., turbid water, chemically treated water, chlorinated water, etc.) will be disposed, if not previously addressed:

3. If chlorine is used, will water be dechlorinated or neutralized to ensure that any water discharged to a surface water does not contain a measurable chlorine residual? ◯ Yes ◯ No ◯ N/A

4. Will the rehabilitation be performed by or under the supervision of a licensed well driller? ◯ Yes ◯ No

5. Will the DNR drinking water staff be given 48 hours prior notice of the exact date and time of the proposed rehabilitation work? ◯ Yes ◯ No

6. Will the owner or an authorized representative submit a written report to the DNR within 30 days of the date of completion of the redevelopment/rehabilitation and subsequent pumping of the well that includes the before and after static and pumping water levels, gallon per minute pumping rate, specific capacity, and the results of any testing for chemical or physical properties for which the well may have been redeveloped/rehabilitated? ◯ Yes ◯ No

Well Driller Name	Firm Name	Licensed Well Driller Number

H. Additional Comments

Further comments on any previous items:

Public Well Redevelopment / Rehabilitation Approval Request

I. Certification

I certify that I have examined the above information and found it to be correct, true and complete.

Printed Name of Professional Engineer, Well Driller or Consultant	Company Name	Date Signed

Signature of Professional Engineer, Well Driller or Consultant	Wisconsin P.E. Number or Licensed Driller Number as applicable

Email Address	Cell Phone # (incl. area code)	Alternate # (incl. area code)	Fax # (incl. area code)

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Pump Discharge Line Submittal Checklist

Form 3300-296 (R 12/15)

Notice: This form is authorized by ss. 280.11, 281.11, 281.19 (1) and (2), and 281.41, Wis. Stats., and ss. NR 108.04 (2)(a) and 811.08 (1), Wis. Adm. Code. Completion of this form or a similar form approved by the Department of Natural Resources (DNR) is mandatory. Personal information collected will be used for administrative purposes and may be provided to requesters to the extent required by Wisconsin's Open Records Law [ss. 19.31-19.39, Wis. Stats.]. Unless otherwise noted all citations refer to Wis. Adm. Code.

Water System General Information

Water System Name

Well Number(s)

Project Name

Purpose of Installation: (select all that apply)

☐ Well pump discharge ☐ Pitless unit discharge ☐ Low-lift pump discharge ☐ High-lift pump discharge ☐ Booster pump discharge

☐ Other

General Information (ss. NR 811.37(1), (2) & (3))

1. Will any portion of the pump discharge piping be buried? ◯ Yes ◯ No

   a. If yes, will adequate positive pressure be maintained on the buried piping at all times? ◯ Yes ◯ No

   b. If yes, and adequate positive pressure will **not** be maintained on the buried piping at all times, what means will be provided to maintain adequate positive pressure at all times? (It is recommended that the means to be provided to be discussed with the DNR's plan review engineer before sending in the submittal.)

2. Indicate the diameter and pipe material specifications for all above and below grade pump discharge piping as applicable. (ss. NR 811.28(5)(b) & NR 811.37(2))

3. Will the portion of the pump discharge piping containing the appurtenances be located above grade? ◯ Yes ◯ No

   If no, has the DNR been contacted to discuss any variance to this requirement? ◯ Yes ◯ No

   DNR Contact Person Name: _____ Phone Number: _____

Installation Details (ss. NR 811.31, NR 811.32 & NR 811.37(4)&(5)) Note: Refer to Figure Nos. 7,8 & 9 in the Appendix of ch. NR 811.

4. Has a drawing(s) of the pump base/pump head showing details and dimensions been attached? ◯ Yes ◯ No

5. Has a drawing(s) of the pump discharge piping showing the locations and details of all appurtenances on the piping been attached? ◯ Yes ◯ No

6. Will the following pump discharge piping appurtenances be installed?
   NOTE: DNR can be contacted prior to plan submittal to discuss modifications or additions to the above sequence of appurtenances as appropriate.

   a. Pump-to-waste fitting or hydrant? ◯ Yes ◯ No ◯ N/A

   If a hydrant will be used to pump to waste, describe how and where.

b. Air-vacuum relief valve? ◯ Yes ◯ No ◯ N/A

If yes, the discharge piping from the valve will be metal, will face downward and terminate a minimum of 24 inches above the floor with a 24-mesh corrosion resistant screened opening? ◯ Yes ◯ No ◯ N/A

c. Smooth-end metal raw water sampling faucet? ◯ Yes ◯ No ◯ N/A

d. Check valve? ◯ Yes ◯ No ◯ N/A

If yes, type of check valve to be installed: _____

e. Water meter? ◯ Yes ◯ No ◯ N/A

If yes, type of water meter to be installed: _____

Will the water meter be capable of proportionally flow pacing one or more chemical feed pumps? ◯ Yes ◯ No ◯ N/A

f. Shut-off valve? ◯ Yes ◯ No ◯ N/A

If yes, type of shut off valve to be installed: _____

g. Pressure gauge? ◯ Yes ◯ No ◯ N/A

h. Chemical injection tap(s)? ◯ Yes ◯ No ◯ N/A

i. Point-of-entry smooth end metal sampling faucet? ◯ Yes ◯ No ◯ N/A

7. Is a pitless unit being installed? (s. NR 811.35 & Figure No. 7 in the Appendix of ch. NR 811) ◯ Yes ◯ No

If yes, has the installation of the appurtenances on the pump discharge piping been adjusted accordingly? ◯ Yes ◯ No

8. Will the connecting piping to one or more pressure tanks be tied into the pump discharge piping? ◯ Yes ◯ No

a. If yes, has the DNR been contacted to discuss the specific installation location and requirements for the pressure tank(s)? ◯ Yes ◯ No

DNR Contact Person Name _____ Phone Number _____

b. If yes, has a Pressure Tank Submittal Checklist (DNR Form No. 3300-299) been completed and attached to this submittal? ◯ Yes ◯ No

Comments

Certification

I hereby certify that the above information and attachments are accurate and complete to the best of my knowledge.

Printed Name of Professional Engineer/Consultant	Company Name	Date Signed

Signature of Professional Engineer/Consultant	Wisconsin P.E. Number (if applicable)

Email Address	Cell Phone # (incl. area code)	Alt Phone # (incl. area code)	Fax # (incl. area code)

NOTE: Plan submittal by a P.E. is not required for water treatment improvements to be constructed at other-than-municipal community water systems unless seven (7) or more homes are being served (a subdivision water system).

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Pressure Tank Submittal Checklist

Form 3300-299 (R 12/15)

Notice: This form is authorized by ss. 280.11, 281.11, 281.19 (1) and (2), and 281.41, Wis. Stats., and ss. NR 108.04 (2)(a) and 811.08 (1), Wis. Adm. Code. Completion of this form or a similar form approved by the Department of Natural Resources is mandatory. Personal information collected will be used for administrative purposes and may be provided to requesters to the extent required by Wisconsin's Open Records Law [ss. 19.31-19.39, Wis. Stats.]. Unless otherwise noted all citations refer to Wis. Adm. Code.

A. Water System General Information

Water System Name	Well Number(s)

Project Name

B. Pressure Tank Specifications (s. NR 811.61)

1. Manufacturer

2. Model Number	3. Gross Volume (gallons)	4. Number of tanks to be installed

5. Means for controlling pump operation

6. Is each tank capable of being bypassed for maintenance, repair, or replacement? (s. NR 811.61(2)) ◯ Yes ◯ No

7. Will each tank be stamped or labeled showing the manufacturer's name, a serial number, the tank volume, the allowable working pressure and the year fabricated? (s. NR 811.61(8)) ◯ Yes ◯ No

8. Are the tank(s) equipped with a bladder or have a gross tank volume <500 gallons? ◯ Yes ◯ No

If yes:

a. Is the bladder material NSF/ANSI standard 61 certified? (s. NR 810.09(5)) ◯ Yes ◯ No ◯ N/A

b. If the tank has an individual connecting pipe, will the connecting pipe be fitted with a shut-off valve, pipe union and drain fitting? (s. NR 811.61(2)) ◯ Yes ◯ No ◯ N/A

c. Will each tank be equipped with an air inlet fitting to allow manual air addition? (s. NR 811.61(6)) ◯ Yes ◯ No

d. Will each tank or bank of tanks be provided with a pressure relief valve? (s. NR 811.61(6)) ◯ Yes ◯ No

If no bladder and the gross tank volume is ≥ 500 gallons: (ss. NR 811.61(3),(4), (5) & (9))

e. Will the tank have a drain fitting with shut-off valve? ◯ Yes ◯ No

f. Will the tank have a pressure gauge? ◯ Yes ◯ No

g. Will the tank have a pressure relief valve? ◯ Yes ◯ No

h. Will the tank have an air relief valve? ◯ Yes ◯ No

i. Will the tank have a water-sight glass? ◯ Yes ◯ No

j. Will the tank interior be painted? ◯ Yes ◯ No

If yes, list the paint specifications:

If yes, are the interior paints NSF/ANSI Standard 61 certified? ◯ Yes ◯ No

k. Will the tank be provided with an air compressor to add air? ◯ Yes ◯ No

If yes, will the operation of the air compressor be automatically controlled? ◯ Yes ◯ No

If yes, will the air compressor be oil-less? ◯ Yes ◯ No

l. Will the tank be constructed of steel and have a minimum 0.25-inch minimum side-wall and head-wall thickness? ◯ Yes ◯ No

C. Installation Location (s. NR 811.61(1))

9. Will the pressure tank(s) be located ◯ above grade or ◯ below grade?
10. Describe all security measures to be provided for the installation where the pressure tank(s) will be housed:

11. Will room heating equipment be installed?	◯ Yes	◯ No	◯ N/A
12. Will room ventilation equipment be installed?	◯ Yes	◯ No	◯ N/A
13. Will dehumidification equipment be installed?	◯ Yes	◯ No	◯ N/A

14. If above grade, describe how and where the pressure tank(s) will be housed:

15. If below grade, describe how and where the pressure tank(s) will be housed and select all that apply:

a. Will the pressure tank(s) will be partially buried with head end exposed?	◯ Yes	◯ No	◯ N/A
b. Will the pressure tank(s) will be totally exposed?	◯ Yes	◯ No	◯ N/A
16. If in a vault:			
a. Will all electrical controls be installed above grade?	◯ Yes	◯ No	◯ N/A
b. Will any air or pressure relief valve discharge piping terminate above grade with a down-turned U-bend and the pipe opening covered with a 24-mesh corrosion resistant screen?	◯ Yes	◯ No	◯ N/A
c. Will any floor, wall or roof penetrations for piping, conduit, etc., be sealed watertight?	◯ Yes	◯ No	◯ N/A
d. Will any access manhole terminate ≥ 24 inches above grade?	◯ Yes	◯ No	◯ N/A
e. Will any access manhole have an overlapping, shoe-box-type cover with gasket?	◯ Yes	◯ No	◯ N/A
f. Will any metal air vent piping terminate ≥ 24 inches above grade with a down-turned U-bend and the pipe opening covered with a 24-mesh corrosion resistant screen?	◯ Yes	◯ No	◯ N/A
g. Will a sump with sump pump discharging to grade be installed?	◯ Yes	◯ No	◯ N/A
17. If in a basement:			
a. Will the basement have an outward opening door that will open to grade?	◯ Yes	◯ No	◯ N/A
b. Will a floor drain be installed?	◯ Yes	◯ No	◯ N/A
If yes, the floor drain will discharge to:			
c. Will a sump with sump pump discharging to grade be installed?	◯ Yes	◯ No	◯ N/A

D. Gross Storage Volume (ss. NR 811.34(6) & NR 811.61(7))

18. The pump on/off controls will be conventional even if a variable frequency drive (VFD) unit will be installed and therefore the total gross pressure tank storage volume in gallons will be a minimum of 10 times the average pump capacity in gallons per minute. (s. NR 811.61(7))	◯ Yes	◯ No	◯ N/A
19. The pump output will be variable due to control by a variable frequency drive (VFD) unit and therefore the total gross pressure tank storage volume in gallons will be a minimum of 2.5 times the average pump capacity in gallons per minute. (s. NR 811.34(6)(a))	◯ Yes	◯ No	◯ N/A
20. The pump output will be variable due to control by a control valve installed on the pump discharge piping and therefore the total gross pressure tank storage volume in gallons will be a minimum of 5 times the average pump capacity in gallons per minute. (s. NR 811.34(6)(b))	◯ Yes	◯ No	◯ N/A
21. The pump is a booster pump or a high-lift pump discharging to a distribution system without elevated storage, a variable frequency drive unit or a control valve on the pump discharge piping will be installed to vary the pump output to maintain a set distribution system pressure and therefore the total gross pressure tank storage volume in gallons will be a minimum of 2.5 times the average pump capacity in gallons per minute. (s. NR 811.34)(6)(c))	◯ Yes	◯ No	◯ N/A

E. Comments

F. Certification

I hereby certify that the above information and attachments are accurate and complete to the best of my knowledge.

Printed name of Professional Engineer/Consultant	Company Name	Date Signed

Signature of Professional Engineer/Consultant	Wisconsin P.E. Number (if applicable)

Email Address	Cell Phone # (incl. area code)	Alt Phone # (incl. area code)	Fax # (incl. area code)

NOTE: Plan submittal by a P.E. is not required for water treatment improvements to be constructed at other-than-municipal community water systems unless seven (7) or more homes are being served (a subdivision water system).

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Reservoir Submittal Checklist

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A. Project Information

Water System Name

Project Name

B. Type of Water Storage Tank

◯ Bolted Steel ◯ Cast-In-Place Concrete ◯ Pre-Stressed Concrete
◯ Welded Steel ◯ Other - Describe: _____

C. Storage Structure Location Information [s. NR 811.63]

Street Address

Pressure Zone

1.	Will the structure be located in a floodway?	◯ Yes	◯ No	
2.	Will the structure be located in a floodplain outside of the floodway?	◯ Yes	◯ No	
	If yes, will the lowest elevation of the reservoir floor, including sumps, be a minimum of 2 feet above the regional flood elevation?	◯ Yes	◯ No	◯ N/A
3.	Will the structure be provided with year-round dry land access?	◯ Yes	◯ No	
4.	Will the structure be located on property owned by the water supply owner?	◯ Yes	◯ No	
5.	If either the structure or access road is not located on property owned by the water supply owner, have easements been obtained to provide access to, or use of, the property?	◯ Yes	◯ No	◯ N/A
6.	Will the lowest elevations of reservoir floors and sumps be placed a minimum of 2 feet above the groundwater table?	◯ Yes	◯ No	◯ N/A
7.	Will sewers, drains, fuel storage tanks, standing water, and similar sources of contamination be kept a minimum of 50 feet from the reservoir?	◯ Yes	◯ No	◯ N/A
8.	Will the top roof surface be ≥ 2 feet above the surrounding ground surface?	◯ Yes	◯ No	◯ N/A

D. Volume Sizing Information [s. NR 811.62(1)]

9.	Will the storage structure, in conjunction with the distribution system design, provide minimum fire flows as specified in s. NR811.70(6)?	◯ Yes	◯ No	◯ N/A

10. Storage Volume [s. NR811.62(1)]: _____ gallons (**attach volume sizing calculations unless provided separately**)

11.	Are other storage structures located in the pressure zone in which this structure is to be located?	◯ Yes	◯ No

If yes, what is the name/location, overflow elevation, and storage volume for each of these storage structures?

E. Pressure Information [s. NR 811.62(2)]

12.	Overflow elevation _____	feet USGS	
13.	Highest elevation to be served in the pressure zone _____	feet USGS	◯ N/A
14.	Lowest elevation to be served in the pressure zone _____	feet USGS	◯ N/A
15.	Highest normal operational water level in the storage structure _____	feet USGS	◯ N/A
16.	Lowest normal operational water level in the storage structure _____	feet USGS	◯ N/A
17.	Maximum operating pressure in pressure zone [ss. NR 811.62(2) & NR 811.66] _____	psi	◯ N/A
18.	Minimum operating pressure in pressure zone [ss. NR 811.62(2) & NR 811.66] _____	psi	◯ N/A

19.	Is the structure designed to meet the minimum 35 psi and maximum 100 psi pressure requirements in s. NR 811.66(1)?	◯ Yes	◯ No	◯ N/A

F. Construction Details

Materials [s. NR 811.64(1)]

20. Select as applicable:

	AWWA Standard
☐ Steel:	
☐ welded panel	_____
☐ bolted and gasketed	_____
☐ Concrete	_____
☐ Other DNR-approved material: _____	_____

Protection [s. NR 811.64(2)]

21. Is it planned to install communication equipment on the structure, now or in the future? ◯ Yes ◯ No
22. Will access to communication equipment be isolated from access to wetted portions of the structure? ◯ Yes ◯ No ◯ N/A
23. Will the installation of ancillary equipment such as antennas and control equipment damage the structure, coatings, or the water quality? ◯ Yes ◯ No ◯ N/A
24. Finished water will not be stored adjacent to nonpotable water with the two compartments separated only by a single wall. ◯ Yes ◯ No ◯ N/A
25. Are manhole covers capable of being locked? ◯ Yes ◯ No
26. Security Measures provided *(select all that apply)*:

☐ Lockable access door
☐ Police or security service patrol
☐ Lighting
☐ Security fencing
☐ Intrusion alarm(s)
☐ Security measures connected to a SCADA system

Briefly describe any other security measures that will be provided for this structure:

Drains [s. NR 811.64(3)]

27. Method to be used to drain the storage structure when necessary:

28. Will any piping that is used to drain water from this storage structure be directly connected to a sanitary sewer? ◯ Yes ◯ No ◯ N/A
29. Will any drain piping be brought down to within 12 to 24 inches of the ground surface? ◯ Yes ◯ No ◯ N/A
30. Will any drain piping opening be directed downward? ◯ Yes ◯ No ◯ N/A
31. Discharge Method: *(select appropriate response)*

◯ With a free air break over a *(check appropriate response)*: ◯ concrete endwall structure ◯ splash pad ◯ storm sewer manhole ◯ riprap ◯ Other: _____

◯ Through an on-site fire hydrant

◯ Other: _____

◯ N/A

Describe how any negative environmental impacts from the discharge of drainage water will be prevented:

Overflow [s. NR 811.64(4)]

32. Will the overflow piping from this storage structure be directly connected to a sanitary sewer? ◯ Yes ◯ No
33. Will the overflow piping be brought down to within 12 to 24 inches of the ground surface? ◯ Yes ◯ No
34. Will the overflow pipe opening be directed downward? ◯ Yes ◯ No
35. Discharge Method (*select appropriate response*):
    ◯ With a free air break over a *(check appropriate response):* ◯ concrete endwall structure ◯ splash pad ◯ storm sewer manhole ◯ riprap
    ◯ Other: _____
    Describe how any negative environmental impacts from the discharge of overflow water will be prevented:
36. Overflow pipe diameter _____ inches
37. Overflow pipe specifications _____
38. Will the diameter of the overflow pipe be sufficient to allow discharge in excess of the maximum filling rate? ◯ Yes ◯ No
39. Will an inlet box be provided? ◯ Yes ◯ No
40. Will the overflow pipe opening be provided with a 24-mesh noncorrodible screen? ◯ Yes ◯ No ◯ N/A
41. Will the surrounding ground grade and the method of termination of the overflow pipe prevent the backup of surface water into the reservoir? ◯ Yes ◯ No ◯ N/A

Inlet - Outlet Piping [s. NR 811.64(5)]

42. Will the tank have separate inlet and outlet pipes? ◯ Yes ◯ No
    Inlet pipe diameter _____ inches
    Outlet pipe diameter _____ inches ◯ N/A
43. Will the piping be sized to accommodate design fill and removal rates including considerations for fire flows and future improvements as applicable? ◯ Yes ◯ No
44. Will any buried inlet and outlet piping be under adequate positive pressure at all times in conformance with s. NR 811.37(1)? ◯ Yes ◯ No ◯ N/A

Bypass Piping [s. NR 811.64(6)]

45. ☐ Bypass piping or ☐ multiple cells (check all that apply) will be installed to allow the reservoir, or part of it, to be taken out of service for cleaning or maintenance? ◯ Yes ◯ No
    Describe the proposed bypass method and equipment:
46. If the reservoir is needed to provide required chlorine contact time (CT), what means will be provided to maintain the required CT while the reservoir is out of service for cleaning or maintenance? ◯ N/A
47. Will a shut-off valve(s) be installed on the connecting piping to the reservoir to allow the unit to be isolated from the water system when necessary? ◯ Yes ◯ No ◯ N/A

Access [s. NR 811.64(7)]

48. If the storage structure is covered by an inhabitable structure, will manholes and other hatches be framed at least 4 inches above the surface of the roof (building floor) at the opening? ◯ Yes ◯ No ◯ N/A
49. If a ground level structure, will manholes be framed at least 24 inches above the top or covering sod? ◯ Yes ◯ No ◯ N/A
50. Will manholes be fitted with a solid watertight cover that overlaps the framed opening and extends down around the frame at least 2 inches? ◯ Yes ◯ No
    If no, explain:
51. Will a compressible gasket be attached to the bottom side of any overlapping covers? ◯ Yes ◯ No ◯ N/A

Vents [s. NR 811.64(8)]

52. Will the storage structure be vented to the atmosphere? ◯ Yes ◯ No

53. Will the vent be sized to allow an airflow that is consistent with maximum water inflow and outflow rates? ◯ Yes ◯ No

54. Will the vent terminate in ◯ U-bend or ◯ mushroom cap (check appropriate response) with the opening 24 to 36 inches above the roof or sod and the vent opening covered with 24-mesh noncorrodible screen? ◯ Yes ◯ No ◯ N/A

55. If a mushroom cap will be installed, when viewed from the side, will the screens be completely covered by the vent cap? ◯ Yes ◯ No ◯ N/A

56. If a mushroom cap will be installed, will it be provided with an automatically resetting pressure-vacuum 'relief frost-proof' mechanism? ◯ Yes ◯ No ◯ N/A

57. Is a detail drawing of the vent(s) included in the plans? ◯ Yes ◯ No

Silt Stop [s. NR 811.64(9)]

58. Will the storage structure discharge pipe be constructed in a manner that will prevent the flow of sediment into the distribution system? ◯ Yes ◯ No

59. Will a removable silt stop be provided? ◯ Yes ◯ No

Roof and Sidewalls [s. NR 811.64(10)] (FOR CONCRETE RESERVOIRS ONLY)

60. List all openings/appurtenances to be installed through the roof. _____

61. List all openings/appurtenances to be installed through the sidewalls. _____

62. List all openings/appurtenances to be installed through the floor/tank bottom. _____

63. Will openings be sealed water-tight in conformance with the requirements of s. NR 811.64(10)(b)? ◯ Yes ◯ No

64. Will openings in a roof designed to accommodate control apparatus, pump columns and other equipment be provided with minimum 4-inch high curbing and sleeved with proper additional flashing to prevent the access of surface or floor drainage water to the structure? ◯ Yes ◯ No ◯ N/A

65. Will valves and controls be located outside the storage structure unless the structure is located beneath a building or otherwise have been approved for installation by the DNR? ◯ Yes ◯ No ◯ N/A

66. List any building appurtenances to be installed in a concrete reservoir roof, if applicable.

_____

67. Will drain piping carrying black water (sanitary waste) will not be installed in a concrete roof? ◯ Yes ◯ No ◯ N/A

68. Will toilets will not be installed above a reservoir roof? ◯ Yes ◯ No ◯ N/A

69. Will any roof drain piping enter or pass through the storage structure? ◯ Yes ◯ No ◯ N/A

70. Will the roof surface or materials to be installed over an exterior roof provide a minimum slope of 0.015 feet per foot to facilitate drainage? ◯ Yes ◯ No ◯ N/A

71. If the roof will be constructed of exposed grouted precast concrete plank panels: ◯ N/A

a. Will a minimum 2-inch thick reinforced concrete topping be installed over the top surface of the grouted plank roof? ◯ Yes ◯ No

Topping and reinforcing specifications: _____

b. Will the roof be covered with insulation boards? ◯ Yes ◯ No ◯ N/A

If yes, insulation board specifications and placement location: _____

c. Will a minimum 0.060-inch thick flexible waterproofing membrane be installed over the concrete topping and any insulation boards if installed? ◯ Yes ◯ No ◯ N/A

Membrane manufacturer and specifications: _____

d. Will stone ballast be installed over the membrane? ◯ Yes ◯ No

72. If the roof will be constructed of reinforced poured-in-place concrete:
    a. Will the roof be covered with insulation boards? ◯ Yes ◯ No ◯ N/A
    If yes, insulation board specifications and placement location: _____
    b. Will a minimum 0.060-inch thick flexible waterproofing membrane be installed over the roof and any insulation boards if installed? ◯ Yes ◯ No
    Membrane manufacturer and specifications: _____
    c. Will stone ballast will be installed over the membrane? ◯ Yes ◯ No
73. If the reservoir roof will be earth covered: ◯ N/A
    Provide details of the earth cover: _____

Safety [s. NR 811.64(11)]

74. In accordance with OSHA requirements, are ladders, ladder cages, or safety climbing devises, balcony, railings, landing platforms, guardrails and safe entry locations provided where applicable? ◯ Yes ◯ No
    Describe:
75. Is the structure designed to comply with other applicable local, state, and federal codes pertaining to workplace safety?(ch. SPS332, OSHA, etc.) ◯ Yes ◯ No

Freezing [s. NR 811.64(12)]

76. Is the structure and all appurtenances designed to minimize freezing that would interfere with proper operation? ◯ Yes ◯ No
77. As an option, is a DNR approved mixer, recirculation pump, air bubbler system or other system to be installed to minimize freezing? ◯ Yes ◯ No
    If yes, will the pump or system have ANSI/NSF Standard 61 certification for use in potable water? ◯ Yes ◯ No ◯ N/A
    If yes, provide a description of the pump or system (include pump capacity, material specifications, piping diameter, location, controls, etc.):

Turnover [s. NR 811.64(13)]

78. Is the structure designed to facilitate turnover of water in order to prevent freezing and stagnant water conditions? ◯ Yes ◯ No ◯ N/A
    If yes, check all that apply:
    - ☐ Separate inlet and outlet pipes
    - ☐ Diffusers/mixers
    - ☐ Baffle walls
    - ☐ Reduce storage capacity when necessary
    - ☐ Other method(s): _____

Internal Catwalk [s. NR 811.64(14)]

79. Will a catwalk be installed over a storage structure containing finished water or water to become finished water? ◯ Yes ◯ No ◯ N/A
    If yes, will the catwalk have a solid floor with sealed raised edges to prevent shoe scrapings, dirt and other contaminants from falling into the water? ◯ Yes ◯ No
    Catwalk floor material: _____

Painting and Cathodic Protection [s. NR 811.64(15)]

80. Will interior metal surfaces to be in contact with potable water be protected by paints or other protective coatings? ◯ Yes ◯ No ◯ N/A

81. Paint Manufacturer(s) _____

	Mfg. Spec. No.	Color	ANSI/NSF 61 Certified
Primer Coat			◯ Yes ◯ No
Intermediate Coat			◯ Yes ◯ No
Final Coat			◯ Yes ◯ No

Is a second paint manufacturer specified? ◯ Yes ◯ No

	Mfg. Spec. No.	Color	ANSI/NSF 61 Certified
Primer Coat			◯ Yes ◯ No
Intermediate Coat			◯ Yes ◯ No
Final Coat			◯ Yes ◯ No

82. Will the curing time be in conformance with ANSI/NSF 61 certification & manufacturer's recommendations? ◯ Yes ◯ No

83. Will an optional cathodic protection be installed? ◯ Yes ◯ No

Miscellaneous Appurtenances [s. NR 811.64(16)]

84. Will the structure be provided with a smooth end sampling faucet(s) to sample inlet and/or outlet water? ◯ Yes ◯ No ◯ N/A

If yes:

Sampling faucet installation location(s)? _____

Sampling faucet installations will meet the requirements of s. NR 811.37(5)(b)3 as follows:

- Will terminate a minimum of 12 inches above the floor? ◯ Yes ◯ No
- Will have a down-turned smooth end spout? ◯ Yes ◯ No
- Will be constructed of metal? ◯ Yes ◯ No
- Will have a minimum spout diameter of 0.25 inches? ◯ Yes ◯ No
- Will be installed directly on the piping conveying the water? ◯ Yes ◯ No
- Will be installed in an area accessible for sampling? ◯ Yes ◯ No

85. Will a threaded tap for chlorination purposes be installed in the connecting main? ◯ Yes ◯ No ◯ N/A

86. Will a valve vault and/or above grade enclosure be installed immediately adjacent to the storage structure? ◯ Yes ◯ No ◯ N/A

If yes:

- Will the structure be protected against freezing? ◯ Yes ◯ No
- Will the structure be provided with drainage facilities? ◯ Yes ◯ No
- Will the structure be locked to prevent unauthorized access? ◯ Yes ◯ No

G. Disinfection [s. NR 811.64(17)]

87. Do the specifications include written procedures for disinfection that are equivalent to those outlined in the current AWWA standard C652? ◯ Yes ◯ No

88. AWWA Disinfection Method to be used: ◯ One ◯ Two ◯ Three

89. Do the specifications include written procedures for bacteriological sampling that comply with the requirements of s. NR 810.09(4) Wis. Adm. Code? ◯ Yes ◯ No

90. Location for discharge of chlorinated water: _____ ◯ N/A

91. Will water discharged to waste during disinfection comply with WPDES general permit requirements? ◯ Yes ◯ No

92. Will dechlorination be necessary before wasted water is discharged? ◯ Yes ◯ No

NOTE: No total residual chlorine may be measured in water being discharged to surface water.

H. CT Design Considerations [ss. NR 811.01(18), NR 811.41, NR 811.42 & NR 811.43]

93. Will the storage structure be provided with baffle walls to provide current or future enhanced disinfection CT? ◯ Yes ◯ No ◯ N/A

If yes:

Has the DNR been contacted to discuss the required CT design? ◯ Yes ◯ No

Does the storage structure CT design complies with the DNR requirements? ◯ Yes ◯ No

I. Resident projective representative [s.NR 811.11]

On-site construction inspection is to be provided by:

J. Comments

K. Certification

I hereby certify that the above information and any attachments are accurate and complete to the best of my knowledge.

Printed Name of Professional Engineer/Consultant	Company Name	Date signed

Signature of Professional Engineer/Consultant	Wisconsin P.E. Number (if applicable)

Email Address	Cell phone # (incl. area code)	Alt phone # (incl. area code)	Fax # (incl. area code)

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State of Wisconsin
Department of Natural Resources
Bureau of Drinking Water and Groundwater, DG/5
PO Box 7921, Madison WI 53707-7921
dnr.wi.gov

DRAFT

Pumphouse / Pumping Station Submittal Checklist

Form 3300-304 (R 12/15)

Notice: This form is authorized by ss. 280.11, 281.11, 281.19 (1) and (2), and 281.41, Wis. Stats., and ss. NR 108.04 (2)(a) and 811.08 (1), Wis. Adm. Code. Completion of this form or a similar form approved by the Department of Natural Resources (DNR) is mandatory. Personal information collected will be used for administrative purposes and may be provided to requesters to the extent required by Wisconsin's Open Records Law [ss. 19.31-19.39, Wis. Stats.]. Unless otherwise noted all citations refer to Wis. Adm. Code.

A. Water System Information

Water System Name	Well Number(s), if applicable

Project Name

B. Project Location

Describe the project location:

C. Construction Details (ss. NR 811.24 & NR 811.25)

1. Will the uses of the building be compatible with the protection of the water supply? (s. NR 811.24) ◯ Yes ◯ No
2. Will adequate space be provided for the installation and servicing of all existing and possible future equipment in the building? (s. NR 811.25(1)(a)) ◯ Yes ◯ No
3. Building dimensions: _____
4. Describe the building floor, wall, and roof materials and the building construction details: (s. NR 811.25(1)(b))

5. Will the exterior walls and the roof be insulated? (s. NR 811.25(1)(b)) ◯ Yes ◯ No
6. Will exterior building door(s) open outward? (s. NR 811.25(1)(c)) ◯ Yes ◯ No
7. Security measures provided *(select all that apply)*: (s. NR 811.25(1)(c))
   - ☐ Lockable access door
   - ☐ Security fencing
   - ☐ Police or security service patrol
   - ☐ Intrusion alarm(s)
   - ☐ Lighting
   - ☐ Security measures connected to a SCADA system

   Briefly describe any other security measures that will be provided for this structure:

8. Elevation information (s. NR 811.25(1)(d))
   a. Will the ground grade be sloped to drain away from the building? ◯ Yes ◯ No ◯ N/A
   b. Will the floor elevation be ≥ 6 inches above the finished grade? ◯ Yes ◯ No ◯ N/A
   c. Will the floor elevation be ≥ 2 feet above the regional flood elevation? ◯ Yes ◯ No ◯ N/A
   d. Will year round dry land access be provided? ◯ Yes ◯ No ◯ N/A
9. Will the building be provided with a concrete floor(s)? (s. NR 811.25(1)(g)) ◯ Yes ◯ No
   If yes, will the concrete be reinforced with rebars? ◯ Yes ◯ No

   If yes, indicate the floor thickness in inches.

10. Will the floor(s) be provided with one or more floor drains? (s. NR 811.25(1)(h)) ◯ Yes ◯ No

If yes:

a. The floor drain wastewater piping will discharge to:
- ◯ A sanitary sewer
- ◯ The ground surface
- ◯ A holding tank
- ◯ A POWTS system
- ◯ Other _____

b. Review the code requirements and provide a summary of how and to where any floor drains will discharge.

c. If floor drains will discharge to a sanitary sewer, will the building floor elevation be at least one foot above the rim elevation of the nearest upstream sanitary sewer manhole? (s. NR 811.25(1)(h)2.a.) ◯ Yes ◯ No ◯ N/A

d. Will any floor drains be located ≥ 2 feet from any outer well casing or the well grout seal? ◯ Yes ◯ No ◯ N/A

e. Provide the pipe diameter and pipe specifications for the floor drain wastewater piping.

If no, will the floor be sloped to drain to the door? ◯ Yes ◯ No ◯ N/A

11. Will heat be provided? (s. NR 811.25(4)) ◯ Yes ◯ No

If yes, describe:

12. Will room ventilation be provided? (s. NR 811.25(5)) ◯ Yes ◯ No

If yes, describe:

13. Will dehumidification or air conditioning equipment be provided? (ss. NR 811.25(6) & NR 811.34(9)) ◯ Yes ◯ No

If yes, describe:

14. Will lighting be provided? (s. NR 811.25(7)) ◯ Yes ◯ No

If yes, describe interior and exterior lighting:

15. Will all interior and exterior plumbing comply with Department of Safety and Professional Services requirements? (s. NR 811.25(8)) ◯ Yes ◯ No ◯ N/A

16. Will the building be used for other purposes in addition to water supply? (s. NR 811.25(9)) ◯ Yes ◯ No

If yes, has the DNR been contacted to discuss the other purposes? ◯ Yes ◯ No

DNR Contact Name	Phone Number

D. Auxiliary Power (ss. NR 811.12(5)(d)1. & NR 811.27

Will auxiliary power be installed? ◯ Yes ◯ No

If yes, describe:

If yes, what will the auxiliary power source be capable of powering and not powering?

E. Resident Project Representative (s. NR 811.11)

On-site construction inspection is to be provided by:

F. Comments

G. Certification

I hereby certify that the above information and attachments are accurate and complete to the best of my knowledge.

Printed Name of Professional Engineer/Consultant	Company Name	Date Signed
Signature of Professional Engineer/Consultant	Wisconsin P.E. Number (if applicable)	

Email Address	Cell Phone # (incl. area code)	Alt Phone # (incl. area code)	Fax # (incl. area code)

NOTE: Plan submittal by a P.E. is not required for new well construction at other-than-municipal community water systems unless seven (7) or more homes are being served (a subdivision water system).

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