

# All Agency Project Request

2011 - 2013 Biennium

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<b><u>Agency</u></b>	<b><u>Institution</u></b>	<b><u>Building No.</u></b>	<b><u>Building Name</u></b>
University of Wisconsin	Stevens Point	285-0K-9921	Utility - Site Water Supply

<b><u>Project No.</u></b>	11L1X	<b><u>Project Title</u></b>	Treehaven Domestic Water Sys Repl
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## **Project Intent**

This project provides pre-design and design services to replace the site domestic water system at the Treehaven Field Station to resolve chemical and mineral contamination in the current system. The water supply wells, distribution system, and enclosure facility will all be replaced.

## **Project Description**

Project work includes installing a new 8-inch diameter domestic water well at a depth of 125 to 150 feet within a 12-inch casing along with new distribution mains to connect to the existing system. A new enclosure facility will be constructed to house the new water supply system, chemical feed equipment, and future pressure filter equipment. Chemical feed equipment injecting blended phosphate at the well discharge will include a liquid chemical pump and storage container. The 440 GSF enclosure facility will be constructed with a removable roof section for installation of well equipment and future pressure filtration equipment. The project will also replace a failed 3,000 gallon pressure storage tank. The existing system will be flushed before activating the new wells.

## **Project Justification**

The Treehaven Field Station is made up of eight primary buildings (41,736 GSF) 11 miles east of Tomahawk, Wisconsin and has a resident capacity of 120 people. There are two water sources on the site and both wells exceed the maximum levels allowed for arsenic, iron, and manganese. The water also contains low levels of inorganic chemicals. The facility has been forced to use bottled water for drinking and food prep after its filtering system failed in August 2010. The east primary well extends 181 feet into granite. The 6-inch connection pipe is not buried below the frost line and does not have adequate frost protection coverage. A second well of 202 feet is the backup source. Both existing wells draw from the same aquifer and were constructed in 1981.

The water contamination and supply issues were the focus of a comprehensive study, which serves as the basis for this project proposal. Two test wells were driven at a depth of 125' to 150' deep in summer 2011 and levels of arsenic, iron and manganese were significantly lower than the existing wells. The arsenic and iron levels were well below standards. Manganese levels were still above the safe drinking standard and will need to be chemically treated. A 12-inch diameter casing is recommended. As the life span for a well casing is approximately 35-40 years, a larger size diameter casing will allow for relining the casing without additional drilling in the future. Electrical service will be extended to the new well building from the existing electrical source and assumes the new pumps will be similar to the existing 5 HP, 230-volt, single phase units.

The Treehaven Field Station was first occupied in 1985 to fulfill direct field study requirements for graduation from the College of Natural Resources (CNR). Each CNR student must complete a minimum six week course at the center to meet their degree requirement. Two six-week sessions are offered each summer. During the remainder of the year the facility is used for a number of short courses through CNR, other UW-Stevens Point colleges and UW-Extension, and are also available to other state agencies and private/public groups for meetings and retreats on a fee basis. These fees support approximately 36% of operating costs.

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**A/E Consultant Requirements**

A/E Selection Required?

Consultants should have specific expertise and experience in the design and coordination of rural domestic water supply and distribution systems as part of a design team. Work includes site surveys, acquiring field data, and verifying as-built conditions to assure accurate development of design and bidding documents and production of necessary design and bidding documents. Consultants should indicate specific projects from past experience (including size, cost, and completion date) in their letter of interest and when known, include proposed consulting partners and specialty consultants.

The consultant will verify project scope and budget estimates, and recommend modifications as required to complete the specified project intent. The consultant will prepare a pre-design document to establish an appropriate project scope, budget, and schedule prior to the university seeking authority to construct from the Board of Regents and State Building Commission.

**Commissioning**

- Level 1
- Level 2

**Project Budget**

Construction Cost:		\$324,000	
Haz Mats:		\$0	
Construction Total:		\$324,000	
Contingency:	15%	\$48,600	
A/E Design Fees:	8%	\$25,900	
DFD Mgmt Fees:	4%	\$14,900	
Equipment/Other:		\$0	
		\$413,400	

**Funding Source**

GFSB - Utilities Repair & Renovation [Z080]	\$413,400
PRSB - []	\$0
Agency/Institution Cash []	\$0
Gifts	\$0
Grants	\$0
Building Trust Funds [BTF]	\$0
Other Funding Source	\$0
	\$413,400

**Project Schedule**

- SBC Approval: 05/2012
- A/E Selection: 01/2012
- Bid Opening: 06/2012
- Construction Start: 07/2012
- Substantial Completion: 10/2012
- Project Close Out: 06/2013

**Project Contact**

- Contact Name: Paul Hasler
- Email: <paul.hasler@uwsp.edu>
- Telephone No.: (715) 346-4275 x

**Project Scope Consideration Checklist**

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|---|--|
| 1. Will the building or area impacted by the project be occupied during construction? If yes, explain how the occupants will be accommodated during construction. | Y <input checked="" type="checkbox"/> N <input type="checkbox"/> |
|---|--|

All project work will be coordinated through campus physical plant staff to minimize disruptions to daily operations and activities.

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|--|--|
| 2. Is the project an extension of another authorized project? If so, provide the project #...<br>10D2H | Y <input checked="" type="checkbox"/> N <input type="checkbox"/> |
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| 3. Are hazardous materials involved? If yes, what materials are involved and how will they be handled? | Y <input type="checkbox"/> N <input checked="" type="checkbox"/> |
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Hazardous materials abatement is not anticipated on this project. Comprehensive building survey inventory data is not available on Wisconsin's Asbestos & Lead Management System (WALMS)

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<http://walms.doa.state.wi.us/>.

4. Will the project impact the utility systems in the building and cause disruptions? If yes, to what extent?
5. Will the project impact the heating plant, primary electrical system, or utility capacities supplying the building? If yes, to what extent?
6. Are other projects or work occurring within this project's work area? If yes, provide the project # and/or description of the other work in the project scope.
7. Have you identified the WEPA designation of the project...Type I, Type II, or Type III?    
[Type III.](#)
8. Is the facility listed on a historic register (federal or state), or is the facility listed by the Wisconsin Historical Society as a building of potential historic significance? If yes, describe here.
9. Are there any other issues affecting the cost or status of this project?
10. Will the construction work be limited to a particular season or window of opportunity? If yes, explain the limitations and provide proposed solution.    
[Project work is seasonal. Preferred project work schedule should be limited to late spring, summer, and/or early fall months if possible.](#)  
[Initial construction and well drilling can begin following bidding but any cut over or shut downs must occur following the second summer field studies program finishes in August 2012 and must be completed no later than October 2012.](#)
11. Will the project improve, decrease, or increase the function and costs of facilities operational and maintenance budget and the work load? If yes, to what extent?    
[Maganese filtration system will require additional maintenance, but is anticipated to have a minor impact overall.](#)
12. Are there known code or health and safety concerns? If yes, identify and indicate if the correction or compliance measure was included in the budget estimate, or indicate plans for correcting the issue(s).    
[Domestic water supply from wells exceeds allowable limits for arsenic, iron, and maganese.](#)
13. Are there potential energy or water usages reduction grants, rebates, or incentives for which the project may qualify (i.e. Focus on Energy <http://www.focusonenergy.com> or the local utility provider)? If yes, describe here.

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14. If this is an energy project, indicate and describe the simple payback on state funding sources in years and the expected energy reduction here.

# Location Map



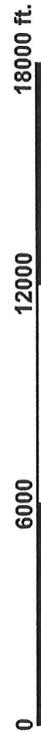
## Legend

- County Boundaries
- ▬ Major Highways
  - ▬ Interstate
  - ▬ US Highway
  - ▬ State Highway
  - ▬ Local Roads
- Civil Towns
- Civil Town
- 24K Open Water
- Cities and Villages
  - Village
  - City
- DNR Managed Lands
- Fee

## PROJECT LOCATION



Scale: 1:60,000



This map is a user generated static output from an internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION.

FIGURE 1

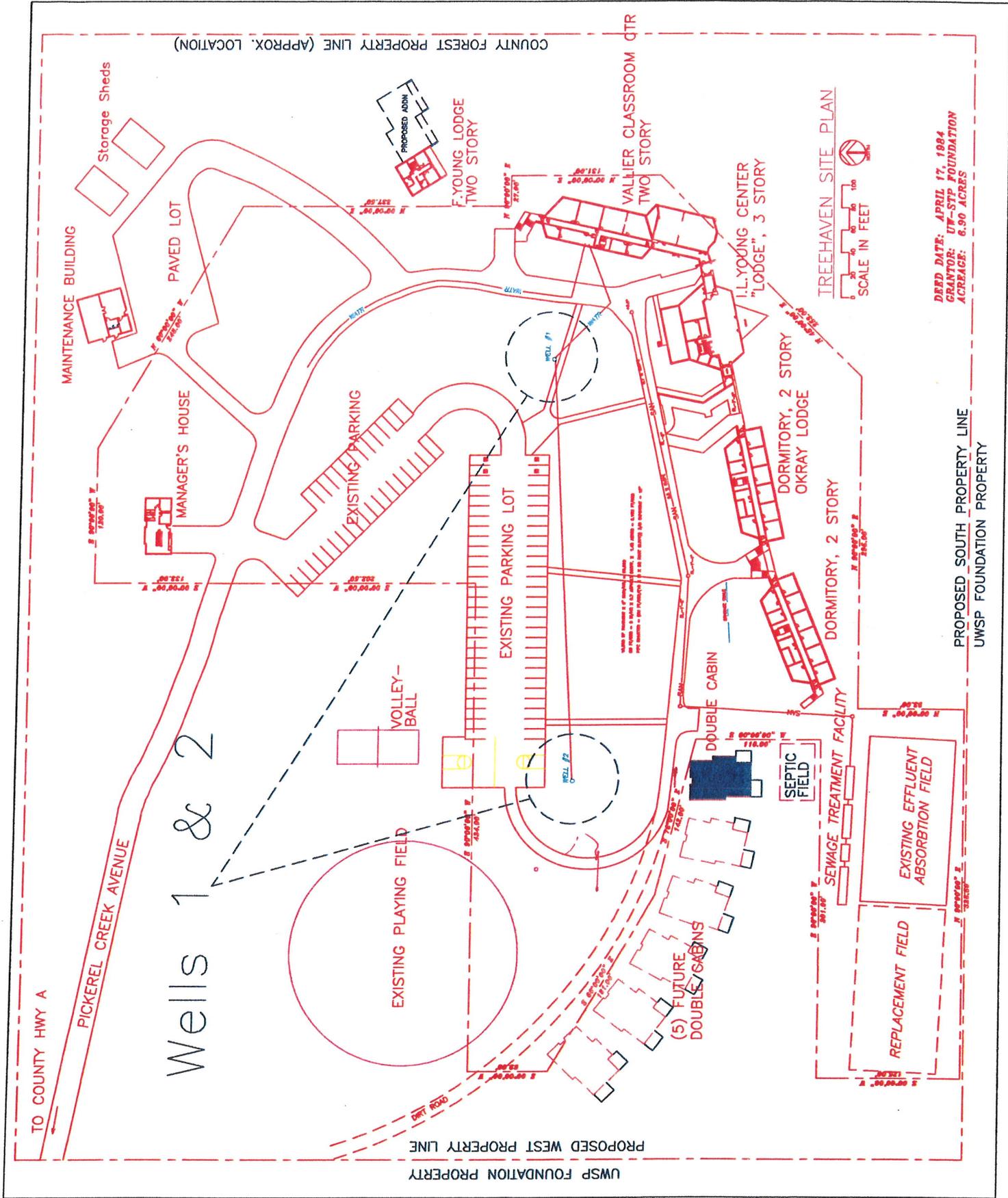


FIGURE 2