



DATE: March 27, 2017

SUBJECT: **Progressive Design-Build
Request for Qualifications**
Waste Water Treatment Plant,
University Park, Pennsylvania

TO: Design-Build Teams:

The Pennsylvania State University intends to upgrade the existing Penn State Wastewater Treatment Plant (WWTP). Key goals are to maintain or reduce the environmental impact of PSU wastewater on the local watershed, update treatment trains to minimize operational risks during low flow (low occupancy) seasons, provide flexibility for future campus growth, and operate efficiently and safely.

The existing plant site along University Drive has been used for sewage treatment since 1913. Treated wastewater has been spray irrigated over 600 acres of University farm and forest area since the 1960s. There has been no discharge from PSU WWTP to a surface stream since 1983. It is estimated that 90% of the irrigated wastewater recharges the regional water table. Utilization of the Living Filter will continue. Additionally the University is constructing a reuse distribution system that will be supplied by the upgraded WWTP.

The WWTP must be kept fully operational during design and construction. This will include meeting effluent goals regulated by the Pennsylvania Department of Environmental Protection WQP #1407408 and closely monitored by the University Wastewater Management Committee.

The site is situated within a critical underground water flow area. Storm water from the site directly affects a high quality cold water fishery. It is a goal of this project to maintain renovations within the footprint of the existing WWTP tankage and minimize additional development of the site.

A basis of design completed by Nittany Engineering and AECOM in 2016 explored Bio Mag, IFAS, and MBR for secondary biological treatment. MBR has been identified to meet the treatment and operational goals of the University. Plant design will be capable of producing Class A re-use effluent. The basis of design projected average flow for 2035 is 1.7 MGD. The project estimate includes reducing the current 4.0MGD hydraulic plant capacity to 2.5MGD. Final confirmation of basis of design will be needed once a design-build team is selected.

The progressive design-build delivery method has been selected for this project. PSU will award the contract preconstruction and design services, including preparation of the GMP and permit,

immediately upon team selection. Construction GMP will be established via a change order to the Design-Build agreement when design is complete. Phased GMPs may be needed. Construction trade packages will be required to be competitively bid unless approved by the owner. Trade contractors identified as critical and included in your team's proposal will ultimately be required to provide detailed breakdown pricing and participate in third party review of pricing. If agreement on pricing is not reached, PSU will require competitively bid package(s).

The total project budget including soft costs is \$46M. We expect design to commence immediately upon contract execution with construction completed by 2021. Safety and operational risks are elevated due to the advanced age of the plant. Improvements to the project schedule are anticipated but quality design and installation will remain a priority. Final project schedule will be coordinated with the selected design-build team.

If you are interested in submitting a design-build proposal for this project, please provide the following information:

1. Clearly identify the proposed design and construction entities that make up your team and describe their legal structure (ie: joint venture, etc.)
2. A statement detailing your team's unique qualifications for designing and constructing in-place renovations of operating wastewater treatment plants. Include a sampling of your previous relevant project experience. Clearly identify who from your team was part of the example projects.
3. Discuss some of the key issues that, in your opinion, are important in the design and construction of this project. Identify the key contractor disciplines that will be needed to make this project a success.
4. Outline your design-build approach for this particular project and the added value to the project as a result of your team's processes. Including how your methods can contribute to reaching the University goal of 80% reduction in carbon emissions by 2050.

Submit to my office twelve (12) hard copies of your response by noon on April 25, 2017, and please limit your submission to five (5) single sided pages. Include the name and email address of your team's contact individual for this project. We would also like to have a pdf version of the submission sent electronically to saw157@psu.edu no later than the above indicated submission deadline. If you have questions regarding this request please contact me or Rachel Prinkey, the Project Manager at 814-867-1536 or rbp13@psu.edu. Penn State reserves the right to waive any informality in any or all proposals, and to reject or accept any proposal or portion thereof.

The University will use a qualifications based selection process with long list, short list, and interviews. The Screening Committee will select a long list of approximately ten (10) firms from the respondents to this letter with the results and an RFP posted to our website by May 5, 2017. PSU may require critical contractors to be identified in the RFP phase of selection. The RFP proposals will be due in my office, at noon on May 30, 2017. Three teams will be chosen from the RFP respondents by June 20, 2017, and results posted to our website. The Selection Committee will interview the three teams on July 18, 2017. The results of the interviews will be

announced at the Board of Trustees meeting on July 20, 2017 and immediately posted to our website.

Sincerely,

Steven Watson
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Cc: Screening Committee, H.F. Stryker

