

RFP – Preliminary Cost Analysis for Water Treatment Modifications for PFAs

Burlington Township owns and operates a water supply, treatment and distribution system to provide the citizens of the Township and other users with potable water treatment. The water facilities consist of three (3) groundwater treatment plants and a distribution system which includes two (2) elevated storage tanks with combined storage of 3 million gallons. As one component of the water system, the Township has operated a water treatment plant located off of Beverly Road in Burlington Township, New Jersey since the early 1990's (the "Beverly Road Water Treatment Plant"). The Plant currently consists of 3 wells, each with its own air stripper, after the air stripper there is a common clear well, pH adjustment and disinfection. Well 5 and the Plant are located on Block 98.26, Lot 8.02 (2.85-acres) and Wells 6 and 7 are located on Block 98.25, Lot 8.01 & Block 98, Lot 7.01, respectively. Raw water is produced from Wells 5, 6, and 7, with capacities of 1,000 gpm, 700 gpm, and 600 gpm, respectively. Due to distribution system constraints, the proposed treatment system should be designed based on a capacity of 2,000 gpm.

The Township is taking a proactive approach to maintain water quality and quantity. The water in the Township's system currently meets all drinking water standards. Due to recent water quality sampling results detecting the presence of PFAs compounds, the Township has identified the need to undertake capital improvements to perform permanent modifications to the Beverly Road WTP to add treatment equipment for PFAs. Treatment equipment is being considered to ensure the newly established NJ MCLs for PFAs compounds continue to be met.

It is anticipated that a building addition or stand-alone structure will be constructed at the existing plant that would house the new treatment components and tie into the existing process, with a focus on limiting disturbance to the existing system.

The requested proposal for professional services for calendar year 2022 shall include the following:

- Review of existing water quality data (Appendix A).
- Review of existing Beverly Road WTP site plan, floor plan and process schematic, Sheets 1, 2, 8, 14 & 35 of 35 (Appendix B).
- Review of current Water Allocation Permit effective 07/01/2017 (Appendix C).
- Review of existing water quantity data; Wells 5, 6 and 7; WSWL65705, WSWL65717 and WSWL65719, respectively (Appendix D).
- Provide description and preliminary sizing including housing structure(s) of recommended treatment equipment based on existing water quality and existing treatment system components. This is a deliverable.

- Provide preliminary (budget) cost estimate for modifications to add PFAs treatment including:
 1. Design drawings for the treatment facility.
 2. Preparation of specifications.
 3. Construction administration and inspection services.
 4. Permitting.
 5. Site work, including but not limited to:
 - Building / foundation addition
 - Treatment system equipment / media
 - Treatment system installation
 - Modification to existing pumps due to an increase in head created by addition of new treatment equipment
 - Process piping modifications
 - Mechanical and plumbing work including lighting, ventilation, dehumidification, exhaust fans, heating
 - Electrical and controls work including new electrical instrumentation, monitoring and controls for the operations of the new treatment equipment
 - Provide and install all necessary ancillary equipment

This is a deliverable. Budget estimates shall be provided for Items #1 - #5.

- In the event the Proposer is recommending a pilot study, the proposer shall include written verification as to the necessity/cost benefit, as well as the estimated cost of such a study. This would also be considered a deliverable.

A site visit may be arranged by contacting Water Dept. Superintendent Matt Hanratty at mhanratty@twp.burlington.nj.us or 609-743-0668.

The successful Proposer shall have sixty (60) days from the date of written notification of contract award by the Township to complete review of the appendices listed herein and provide all deliverables.

Appendix A: Existing Water Quality Data*

Raw Water Results, Wells 5, 6 & 7
Regulated PFAs & UCMR(3) Results, POE
Federal & State VOC Results, POE
Radionuclides Results, POE
Inorganic Results, POE
Synthetic Organics, NJ 504s Only, POE
Secondary Standards, POE
POE = Point of Entry to the Distribution System

*All lab reports for the data attached herein spreadsheet format are available upon request from the Burlington Township Department of Engineering

Appendix B: Drawings

Signed and sealed design drawings prepared by GPM Associates, Inc., entitled "Well No.5 and Treatment Facilities for Burlington Township", as follows:

Sheet	Title	Dated	Last Revision Date
1 of 35	Cover Sheet	08/11/91	01/24/92
2 of 35	Site Plan	07/08/91	01/24/92
8 of 35	Schematic Flow Diagram	05/06/91	01/24/92
14 of 35	Treatment Plant Floor Plan	07/17/91	01/24/92
15 of 35	Piping Sections and Details	07/08/91	01/24/92

Appendix C: Water Allocation Permit

Appendix D: Water Quantity Data

Years 2010, 2017, 2018, 2019, 2020, 2021