

Questions and Responses Regarding the RFP for Professional Services for DNR's Waste Management Program

QUESTION #1

The installation diagram shows a nested installation with two wells in a single 10-inch boring, set at different depths, with a bentonite seal to isolate the different monitoring zones. A 10-inch boring going into bedrock is a big undertaking and will require larger equipment to install the boring. Additionally, setting the lower monitoring zone in the bed rock and the upper in the unconsolidated formation will make sealing between the two more difficult, with a higher potential for creating a vertical pathway for migration. Would you consider installing these in a clustered arrangement, with two separate, smaller diameter borings that are spaced a few feet apart? This will likely reduce overall cost and prevent the potential for vertical migration within the same boring.

ANSWER: In response to questions received by the Waste Management Program (WMP) regarding the Request for Proposals (RFP) published by the Environmental Improvement and Energy Resources Authority (EI ERA) in July of 2025, several significant revisions were made to the RFP. Also, edits were made to the RFP to correct duplicative language or errors, and summarized below.

- 1) The original RFP stated that either a professional engineer or a registered geologist could oversee this project. The WMP received a question regarding the need for a registered geologist. In response, the WMP has decided that due to the complex nature of the geology at the landfill, and the need to ensure the correct geologic formations are monitored to protect public health and safety, a registered geologist will provide the best outcome on this project. The RFP was amended to require a registered geologist to oversee the installation, construction, and reporting tasks for this project and some additional information was added regarding observations during drilling.
- 2) The original RFP required gas monitoring probes to be installed/constructed as nested probes. A consulting firm asked if the probes could be individually installed instead of installed as nested probes. After review and discussion, the WMP decided to allow either nested or individually installed and constructed gas monitoring probes. The RFP was amended throughout the document to allow either nested probe or individual probe installation and construction and added a minimum distance between boreholes. Bidders have the option to propose and bid upon this project whether installing and constructing four gas monitoring probes at each chosen location as nested probes (using two larger boreholes) or as four individual gas monitoring probes (using four smaller boreholes). Bids will be reviewed and compared whether the consulting firm submits a bid for either nested or individual probe installation/ construction (1 bid) or for both the nested installation/construction and individual installation/construction (2 bids).

- 3) The RFP was also amended to allow bidders to provide an estimate of lead time the well driller needs to have in order to schedule the drilling project, from the date the RFP is awarded. This is necessary to be able to gain access to one well location that is adjacent to school property. The preference will be to access the property during a school holiday or planned teacher's meeting.
- 4) In Task 2 of the Scope of Services, the WMP added steel bollards be installed around the probes as part of probe completion.
- 5) A sentence was removed from Task 2 that describes purging the well, and this was left in error. It does not apply to gas monitoring probes but applies to groundwater monitoring wells.
- 6) A survey plat was added to the list of items in Task 3 of the Scope of Services in the RFP. This was already in the narrative for Task 4 in the original RFP, but it was added to Task 3 to clarify how the plat needs to be submitted.

Below is link to Amended RFP

https://eiera.mo.gov/wp-content/uploads/sites/11/2025/08/Combined_RFP-Woods-Chapel-and-Jackson-County-SLFs-Gas-Probe-Installation-Amended-8-11-and-Appendices.pdf

QUESTION #2

In the RFP, it is stated that the gas probes need to be 2" in diameter and placed in a 10" borehole if nested. However, we were wondering if there could be any variance in this specification, allowing us to install 1" gas probes in an 8" borehole instead. The reason behind this request is that we have successfully installed 1" gas probes at other sites, and it requires less purging when pulling a gas reading.

Additionally, we can wireline core then air rotary drill to create a 10" borehole for the nested gas probes with one rig. However, this would require a larger drill rig, which might not be suitable for the golf course area. Fletcher mentioned in the meeting that we could use a sonic rig, but later clarified that we would still need to wireline core and could only use the sonic rig to widen the borehole to 10". This would mean having two rigs on site, as most core rigs cannot widen to 10", and we cannot fully rely on the sonic rig for the core, just for widening the borehole.

I believe most consultants will face this challenge, and to keep the costs down, using a 1" gas probe with an 8" borehole for nested wells would be more economical than the alternative.

ANSWER: The Amended Request for Proposal expanded the options to submit either nested or individual probes. Yes, this alternate monitoring well size may be proposed, with the understanding that this can only be used if it is approved in writing by MGS as a variance to the Missouri Wellhead Construction Rules, but the required 2" distances between the probes and between the probes and the riser pipe must be maintained. For this project, only two probes should be installed in each bore hole.

The main goal of this project is to install competent gas monitoring probes that are constructed per the Missouri Wellhead Construction Rules, and these probes must be able to accurately monitor the required geologic formations. To achieve this goal, the drilling must provide quality cores that will allow examination and recognition of the changes in geologic formations to be able to accurately screen each probe at the correct elevations. The drill rig used in this project must be able to achieve this goal, whether it is sonic or other style drill rig. If two drill rigs are needed to provide an adequate core to confirm geologic formation identification, then have those available/provided. If you want to cover all contingencies, you may submit a bid for each different probe size/borehole size/drilling scenario for consideration.

QUESTION #3

During the on-site meeting for Site Evaluation and Viewing on August 15, 2025 some discussion centered around a source of water for each drilling location.

ANSWER: Arrangements for water acquisition, permissions, use of meters, etc. is expected to be done prior to drilling to enable prompt project start-up, reduce delays, and allow for efficient project completion with minimal damage to school district property. If applicable, the cost for water should be included as a part of the bid.