

April 22, 2009

Dear Property Owner:

The City of Chesapeake remains committed to providing an alternative source of drinking water to residents near the Battlefield Golf Club that rely on wells. This letter and brief provide an update:

In the fall, the City hired URS Corporation to evaluate various alternatives for providing drinking water to residents. Some of you received a questionnaire about your well, and most of you have probably seen their employees among the many people working at the site. The complete study contains over 400 pages and can be viewed on the City's web site, at the Central Library's Reference Department, and at the United House of Prayer. A summary is attached to this letter.

Some of you may wonder why this process was undertaken when the desire for City water was clearly communicated by most residents. It was important because some residents told us that they did not want City water, and because of that, we felt it important to look at other options that might meet this goal.

URS studied four alternatives. Among the considerations were the quality of the water source and the impact on homeowners. As you will see, providing City water is the most practical and reliable option among the four. The details of the advantages and disadvantages of each option are in the report so you can see how this conclusion was reached.

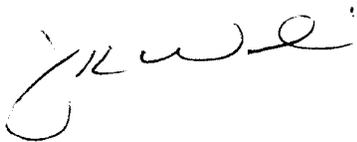
Because of the need to resolve this as quickly as possible and because City drinking water was clearly the best solution, design of the new water extension has already begun and is approximately 90% complete. The construction work is expected to be put out to bid this summer and start shortly after the contracts are awarded. A detailed construction schedule will be provided at that time.

Initially, properties adjacent to the golf course will receive City water. Those in the path of the water main extension may also be included. Expansion of

the area served by water continues to be evaluated. Ongoing work is focusing on the potential movement of water from the site, which we know is of critical importance to you. When this work is finished, we will provide it to you. If future test results show contaminated water moving off site, Chesapeake will work with the Environmental Protection Agency (EPA) to protect the public's health.

Please take the time to read the information provided. We very much appreciate your patience as we work through this situation. As always, all correspondence with citizens is posted on the City's website at CityofChesapeake.net/BattlefieldGolfClub.

Sincerely,

A handwritten signature in black ink, appearing to read 'J. K. Walski', written in a cursive style.

J. K. Walski, P.E.
Director of Public Utilities

Attachment: URS Water Supply Feasibility Study

Summary of Findings and Recommendations

Battlefield Golf Club Water Project Water Supply Feasibility Study

The following is a brief summary of the findings of the City's consultant, URS Corporation. The complete report is posted on the project web site and is available for review. A printed copy is also available at the Chesapeake Central Library.

Due to concerns regarding potential impacts to groundwater quality from the use of fly ash as fill at the Battlefield Golf Club, the City of Chesapeake initiated a water supply feasibility study to evaluate existing conditions and assess viable alternatives capable of delivering potable water to City residents located within the study area. For the purposes of this study, this review involved the properties on both sides of those segments of Centerville Turnpike, Murray Drive and Whittamore Road that surround the Battlefield Golf Club.

The following four alternatives were evaluated:

- **Alternative 1:** Extend the City of Chesapeake's central water distribution system via water main extensions.
- **Alternative 2:** Install a "stand alone" community groundwater supply, treatment, storage and distribution system capable of serving the study area.
- **Alternative 3:** Install point-of-entry (POE) treatment systems on existing wells.
- **Alternative 4:** Install and develop new private homeowner wells.

The Water Supply Feasibility Study evaluated the alternatives based on regulatory compliance, property owner inconvenience, operational requirements, technical feasibility, administrative/permitting concerns, and present worth cost (capital and operations and maintenance (O & M) costs. State and Federal Water Quality Regulations also were used to determine if various water quality elements were within regulatory limits for drinking water standards.

Evaluations

Cost analyses and Alternatives Evaluation Decision Matrix evaluations were used to compare the alternatives. Costs include all capital and operation and maintenance (O&M) costs. In a present worth comparison of alternatives, the costs associated with each alternative are all converted to a present sum of money, and the least of these values represents the best financial alternative. As summary of the present worth analysis is:

Summary of Findings and Recommendations

	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Capital Cost	\$7,221,756	\$8,241,704	\$2,770,149	\$803,000
Useful Life	30 Years	30 Years	30 Years	30 Years
O & M costs				
• City	\$3,000/yr	\$187,227/yr	\$460,879/yr	\$0/yr
• Homeowners	\$0/yr	\$0/yr	\$166,923/yr	\$10,000/yr
Present Worth	\$7,267,873	\$11,289,844	\$9,854,989	\$956,725

Note that O&M costs for residents are also provided, which do not include water bills from the City for alternatives 1, 2 and 3)

While a present worth analysis is invaluable in evaluating alternatives it should not be the only consideration. In this study an Alternatives Evaluation Decision Matrix also was developed which considered six categories of criteria to further assess the alternatives. The six categories are as follows:

1. Regulatory Compliance - Water Quality
2. Property Owner Impact
3. Operational Requirements
4. Technical Feasibility
5. Present Worth
6. Permitting / Administrative Burdens

Each category was further sub-divided into the specific criteria indicated and given a relative weight of importance on a scale of 0 - 10 (no importance rated 0, most important rated 10). The amount of "relative importance" is a comparison between the respective criteria. The higher the value, the more favorable the alternative. A summary of the Alternatives Evaluation Decision Matrix is as follows:

Alternative	Score
Alternative 1: Extend the City of Chesapeake's central water distribution system via water main extensions.	412
Alternative 2: Install a "stand alone" community groundwater supply, treatment, storage and distribution system capable of serving the study area.	210
Alternative 3: Install point-of-entry (POE) treatment systems on existing wells.	216
Alternative 4: Install and develop new wells into aquifer(s) offering potentially less susceptibility to reduced water quality conditions and potential contaminants from the fly ash.	366

The results of the decision matrix evaluation show Alternative 1 as the most feasible.

Summary of Findings and Recommendations

Recommendation

Based on the investigations of the alternatives evaluated to supply potable water to the homes in the vicinity of the Battlefield Golf Course, Alternative 1 was the recommended alternative. The advantages of this alternative in relation to the others are:

- Provides residents access to the highest quality water available,
- Can be implemented relatively quickly,
- Eliminates homeowner operation and maintenance responsibility,
- Offers the highest level of fire protection,
- Protects public welfare,
- Minimizes environmental impacts and would be the most protective against any potential future impacts to the existing aquifer supply.
- Provides a redundant, reliable water supply.