

# 2019 TIMELINE: Sentinel Well Location Study for the Gelman Plume

Over the next six months (July through December 2019), the City of Ann Arbor will evaluate locations to install sentinel wells between the north edge of the prohibition zone and Barton Pond. This work is part of the city's approach to ensure the city's surface water supply is protected from contamination.



**1 PHASE 1 – DATA GATHERING**  
Review existing data including well logs and sampling results from EGLE, Washtenaw County Health Department, CARD and Gelman Science.

**2 PHASE 2 – 3-D MODELING OF PLUME**  
Generate a 3-D model of the subsurface on the northern edge of the plume. This model will be used to understand the contaminant migration pathways and will be used to identify data gaps where additional wells are needed.

**3 PHASE 3 – INDEPENDENT REVIEW OF MODEL**  
Dr. Larry Lemke will provide an independent technical review of the model. Dr. Lemke has been studying this site for decades and has significant experience and institutional knowledge on this site.

**4 PHASE 4 – SAMPLE COLLECTION**  
The city will collect samples at several existing monitoring wells along the north edge of the plume. Samples will be analyzed using a method that has a lower detection limit than is currently being used to provide additional resolution on the geographical limits of the plume.

**5 PHASE 5 – WELL LOCATION RECOMMENDATIONS**  
Using the new samples results, calibrated 3-D model, and review of existing data, a recommendation on sentinel well locations will be provided to the city.

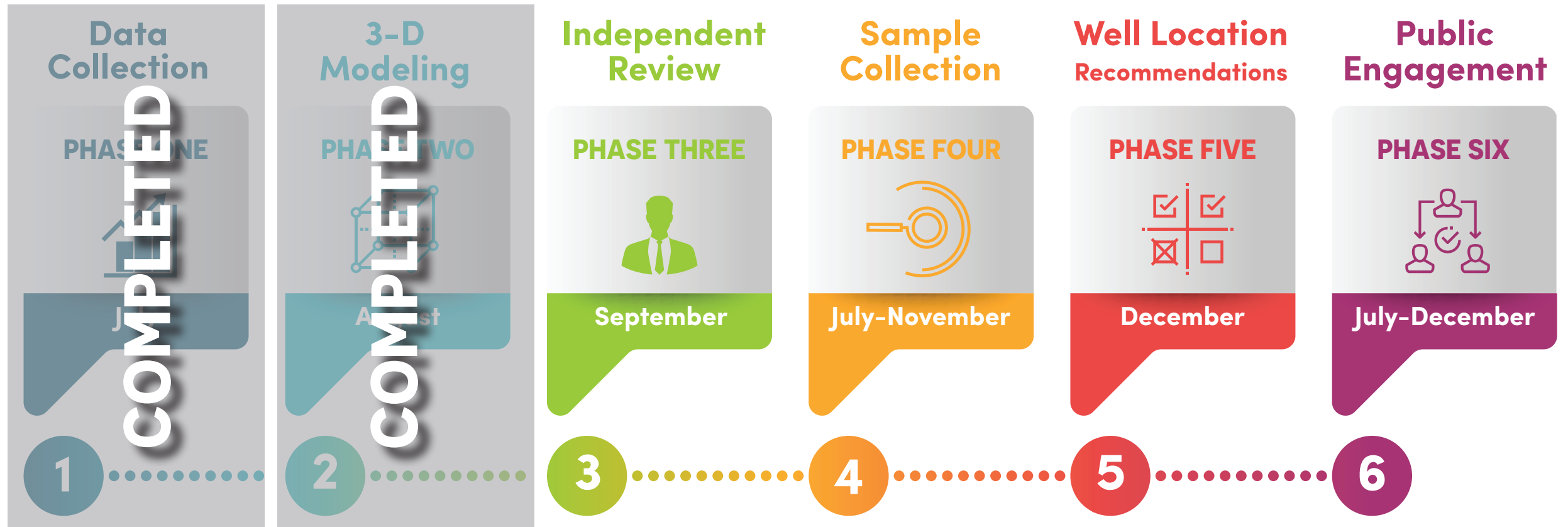
**6 PHASE 6 – PUBLIC ENGAGEMENT**  
Staff will provide updates on the progress of this work through Quality Water Matters and at the conclusion of this study, will present the results and recommendations to City Council. Staff will engage stakeholders including CARD, EGLE and Washtenaw County Public Health Department throughout the course of this work.



[QualityWaterMatters.org](http://QualityWaterMatters.org)

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## Independent Review

**PHASE THREE**

**September**



### PHASE 3 – INDEPENDENT REVIEW OF MODEL

Dr. Larry Lemke provided an independent technical review of the model. Dr. Lemke has been studying this site for decades and has significant experience and institutional knowledge on this site.

#### SEPTEMBER 2019 STATUS UPDATE:

Tetra Tech completed a 3-dimensional model focusing on the DuPont Circle area and north. The model includes lithology from the soil boring log and elevation data provided by EGLE, CARD and Danaher's consultant Fleis and Vanderbrink Engineering, Inc. Concentration data from recent sampling events was entered into the program to illustrate a 3-dimensional view of the 1,4-dioxane plume in relation to depth, lithology, highest concentration mass and the monitoring well locations. This model will be reviewed by Dr. Lemke for his input in the first half of September. A list of monitoring wells suggested for split sampling with Fleis and Vanderbrink will also be discussed with Dr. Lemke.

The next steps will include presenting information to stakeholders. Tetra Tech is developing recommendations for the number of sentinel monitoring wells, their proposed location and estimated depth. Public input will be requested at the quarterly CARD meeting in November. A request for presenting this information to CARD was made at the Sept. 3 monthly meeting.

Revised: September 5, 2019



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