

TO: Sherborn Zoning Board of Appeals
FROM: Daryl Beardsley, 54 Forest Street
DATE: March 11, 2024
RE: Farm Road Homes Project – Calculation and Analytical Transparency

The following comments are not being submitted in my capacity as a Board of Health member.

Over the course of 35+ years as an industrial-environmental engineer, there have been a number of occasions when clients have been required by a regulatory authority to present details of calculations and analyses about:

- air/water/waste emissions assessments,
- materials balances of process inputs and outputs,
- information included on reports intended to demonstrate attainment of performance requirements, and
- any other situations where compliance is dependent upon the evaluations claimed.

Such presentations have been made to US EPA headquarters, regional EPA offices, and state and local level authorities. As suited to the type of analyses being examined, the range of presentation elements included detailed review of:

- input data, including sources for and methods to obtain the data;
- appropriateness of data use;
- equations/formulas used;
- integrity of laboratory analyses;
- assumptions applied; and/or
- the impact of alternative inputs/assumptions on results.

Regulatory authorities have and may treat actual confidential business information as such.

Whereas well-known software packages (e.g., ModFlow) may be treated as proprietary due to their additional levels of programming (such as user interfaces and graphic outputs) and that their extensive use and scrutiny have vetted their performance, input values and outputs must still be transparent. In the case of spreadsheets/workbooks for a specific project, they have been reviewed in meetings, provided in electronic form, and/or printed out (with companion versions showing [i] the numerical and text values and [ii] the underlying formulas, references, etc.).

My experience sharing detailed information about data, calculations, and analyses with regulators is that it strengthened the position of the regulated entity.