

What is a competent and complete site report?
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The title of this presentation seems a bit pretentious for anyone to take on. But since I was asked to address this subject, I will try to give my opinion. The type and detail of a soil/site evaluation report can certainly vary depending on the specific land use question being asked. A soil/site assessment may be as general as a sketch on a napkin over lunch after a cursory site visit or a high intensity evaluation with supporting data and detailed georeferenced system layout. The scale of the information will be very instrumental in the nature and detail of the report. The minimum decision making unit is the size of a wastewater disposal field.

One level of report could simply include a map showing useable and unsuitable areas for a conventional septic system. A more sophisticated report would include a suitability map plus the suitable or unsuitable rating of each soil for each major factor (texture/, structure, consistence/mineralogy, wetness/color, soil depth, saprolite class, etc.). This would be similar to the DENR/DEH form for “Soil/Site Evaluation for On-Site Wastewater System”.

A third level approach would also include detailed soil profile descriptions providing complete morphology. This would indicate horizon boundary conditions, presence of pores and roots etc. A comprehensive morphological evaluation would not focus solely on the parameters defined by the section 0.1900 rules. Soil evaluation is best performed in a manner that includes all in situ soil features that are in observable in the field. Clearly a freshly exposed profile in a pit is best for this evaluation.

The most comprehensive soil/site evaluation would not only include the aforementioned information but would expand the background to encompass parent material/geology, landscape/hydrology information and expected soil variability related to the factors and processes of soil formation. Such a complete report should be of such a nature that the information would allow any competent soil scientist to reach the same conclusion/interpretation. The evaluation process and report would fully document the final evaluation conclusion.

Such a report would do more than address the conditions at a few specific sites but would provide a holistic and 3-dimensional perspective to the soil and site conditions. The report would depict the existing conditions and natural soil processes and then assess the new conditions created by the proposed land use change.