WHICH SOIL SURVEY BELOW WOULD BE MORE USEFUL FOR YOU?

Figure 1 (Right): NRCS County Soil Map showing a 6-acre residential property.

Figure 2 (Left): Same 6-acre property except it was mapped by a Maine Certified Soil Scientist from the private sector. See opposite page for an enlargement and other details.

IT DEPENDS ON YOUR NEEDS. LET’S REVIEW THE DIFFERENCES BETWEEN A USDA COUNTY SOIL SURVEY AND A HIGH INTENSITY SOIL MAP, TAILORED TO MEET YOUR SPECIFIC NEEDS, PRODUCED BY A MAINE CERTIFIED SOIL SCIENTIST.

Soil Surveys prepared by the USDA Natural Resource Conservation Service (available at County Soil and Water Conservation Districts and on-line via the web soil survey as Order 2 Surveys) are useful to planners, town officials, farmers, foresters, developers, engineers etc. to assist in making general land use planning decisions over large areas. However, because of the broad extent these maps have, they are not detailed enough to make site specific land use decisions. They typically differentiate soils down to only about 3-4 acres for Order 2 surveys and may only differentiate down to 15 acres or more for wooded areas for Order 3 surveys. Therefore, a soil type that is less than 3-4 acres in a field mapped as another series, or 15 or more acres in wooded areas mapped as something else will not be shown on the County Soil Survey. For that reason, people submitting NRCS soil maps for permitting purposes on relatively smaller properties oftentimes unknowingly use these maps incorrectly. To acquire critically detailed information on a smaller parcel, a High Intensity Soil Survey, typically produced by a Maine Certified Soil Scientist working within the private sector, is necessary to identify and map smaller soil areas down to 1/8th acre sized mapping units.

The opposite side of this page shows the same property shown by Figure 2, enlarged and with features highlighted. Hydric soils (a component of wetlands, and shaded in green on this example) as well as shallow depth-to-bedrock soils (shaded in grey) are color-coded on this plan. These features would be very important to be aware of if the landowner’s intent is to subdivide the property. Hydric soils and shallow depth-to-bedrock are two important site-specific soil-related properties for most proposed land alteration projects, but they may be desirable features for other land projects such as, for instance, proposed communication towers. Other soil properties, such as varying rates of surficial and/or subsurface drainage, can be similarly highlighted on a soils map if this information is critical to the success of a project, as drainage would be if the project was a proposed spray irrigation facility. But perhaps most importantly, a High Intensity Soil Survey can show where the most suitable soils are for a particular project.

IS IT WORTH IT TO HAVE A HIGH INTENSITY SOIL SURVEY MAPPED ON YOUR PROPERTY?

A soil map and report is an integral component of proposed land alteration projects. As part of the up-front, site-specific environmental investigations prior to a project, a soils report provides a two-dimensional representation of what is actually on the ground along with a detailed written description of below-ground properties. Proceeding with project design without acquiring on-site soils information is apt to plague the landowner with budgetary over-runs during the early phases of a project and that, in a nutshell, is why it is worth it to invest in a High Intensity Soil Survey. The initial cost of one can be recouped many times over through cost savings realized by having detailed knowledge of the soil resources of a property and using that information to plan an intended use efficiently.

Summarizing, a High Intensity Soil Survey produced by a Maine Certified Soil Scientist is a critically important tool for any landowner wishing to develop a property. Land development is all about making cost-effective decisions and nobody can do that without first getting the best soils information available.