

# Problem, Altered, Disturbed, Atypical, and Anthropogenic Sites



# Problem and Altered Sites, often dependent on one's level of expertise.

- Sandy soils
- Spodosols
- Folists
- Red parent materials
- Drained soils
- Wet meadow
- Sloped wetlands (COE)
- Beaver activity
- Invasive species

# Disturbed Sites (atypical, anthropogenic)

- Filled
- Excavated or stripped

“Take the time to calibrate”  
David Rocque

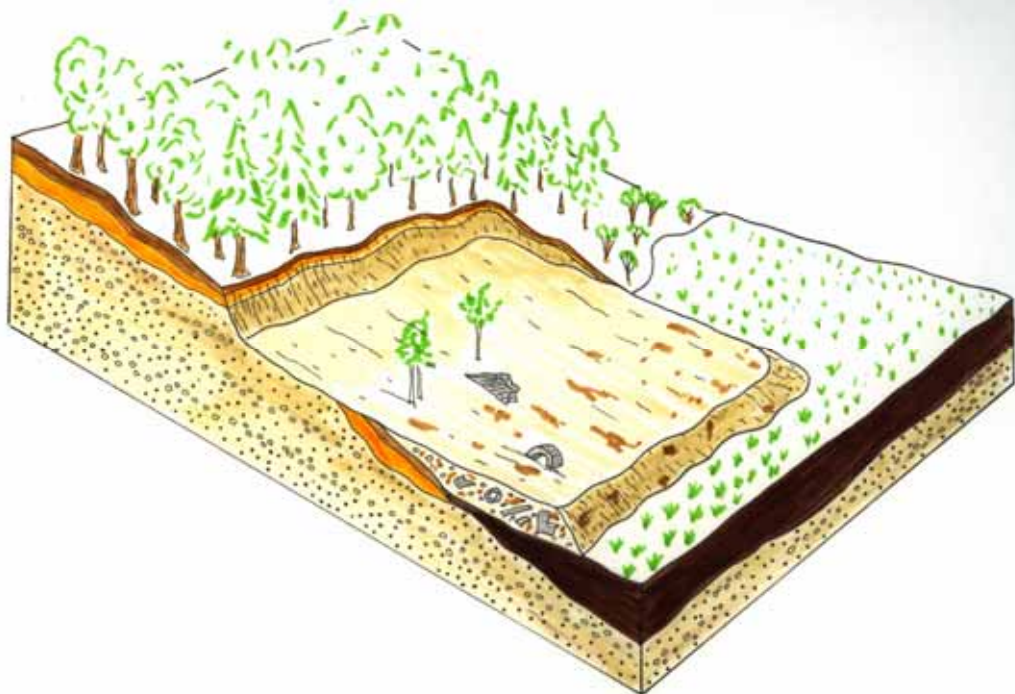


# Importance of using an accepted methodology.

- New England Hydric Soils Technical Committee's - Disturbed Hydric Soil Subcommittee – Tom Peragallo
- Supplement to New England Field Indicators – David Rocque
- 1987 Corps of Engineer's, Wetland Delineation Manual Section F. Atypical Situations.

There is a degree of  
uniqueness to every site.

CSI Investigation



# Need to establish a bench mark.

As an alternative, examine an undisturbed soil of the same soil series occurring in the same topographic position in an immediately adjacent area that has not been altered.

# Natural vs. Disturbed soil profiles

# Natural soil profile and in-place geologic sediments – in-depth understanding

- Natural horizonation
- Developed soil colors and features
- Geologic stratification
- Dead in-place woody roots





S.T.P.  
#12







## Filled, Excavated, and Disturbed Soils – many unknowns and need for professional interpretation

- Buried organic rich layers (Ob, Ab, Apb horizons)
- Foreign materials (artifacts)
- Mechanical mixing (textures and colors)
- Unnatural sequence of layering









Soil Test Pit  
# 1  
Hull, MA  
1/9/03 PCE

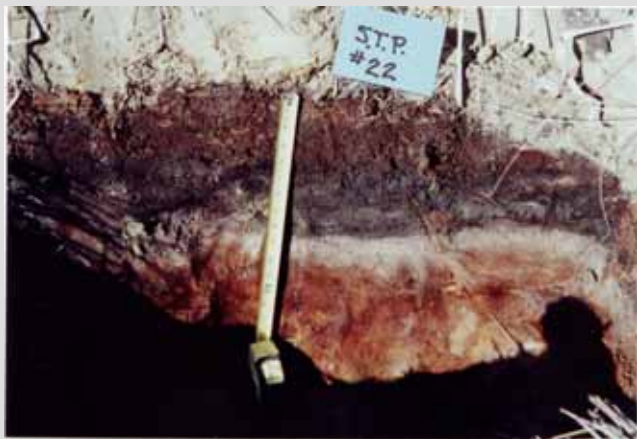


S.T.P.  
WELL #19  
4/10/03 P.F.

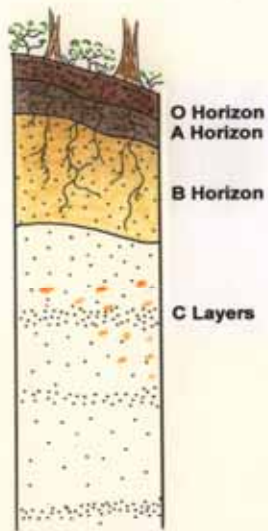


# Importance of establishing time frame and original soil surface

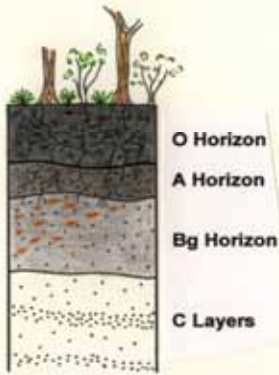
- Need to know time frame.
- Where to record measurements from (zero point).



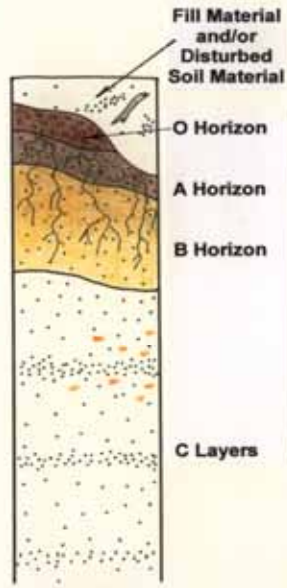




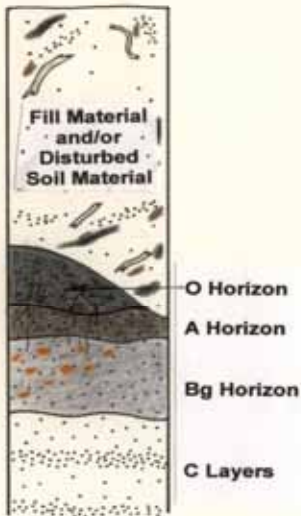
**Non Hydric Soil**



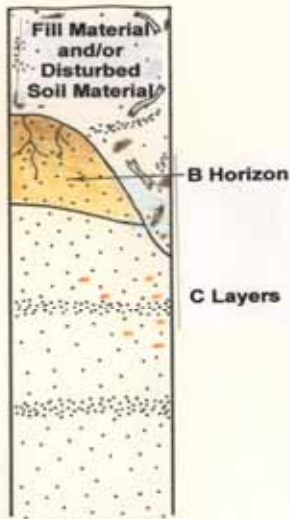
**Hydric Soil**



**Buried Non Hydric Soil**



**Buried Hydric Soil**



**Buried Inplace Soil/Geologic Material without Redox features (non hydric)**



**Buried Inplace Soil/Geologic Material with Redox features (inconclusive)**

Soil horizon nomenclature  
commonly used when  
documenting disturbed soil  
conditions.

# Fill Layer

Importance of detailed field notes:  
evidence of mechanical mixing,  
compacted soil, artifacts, roots, etc.