FORM 11

MassDEP website:
Go to: http://Mass.gov/dep/ which is the MassDEP homepage and use the Search feature. For Form 11, type in “Title 5 Form 11” and then open up “Title 5 Septic System Forms” which should be the first link, then “Title 5 Construction & Repair Forms”. Open the Form 11 Word document (not the PDF document because that one is old). For the Percolation Test form, type in “Form 12” and go to the same tabs as above with Form 11.

OR DIRECTLY USE THESE TWO LINKS:
Soil Suitability Assessment for On-Site Sewage Disposal - Form 11:
http://www.mass.gov/eea/docs/dep/water/approvals/year-thru-alpha/t-thru-v/t5form11.doc
Percolation Test - Form 12:
http://www.mass.gov/eea/docs/dep/water/approvals/year-thru-alpha/t-thru-v/t5form12.doc

SOIL SURVEYS

University of California at Davis soils mapping website:
http://casoilresource.lawr.ucdavis.edu

1. Click “Soil Survey”
2. Click “SoilWeb”
3. Go to “Menu” tab at upper left hand side of page where you can go to “Map Settings” and “Zoom to Location”
4. Click on your site area and soils information pops up on left hand side of page
5. Click on “Soil Type” for more information including soil series, soil profile, parent material, etc.

NE Soil website:
http://nesoil.com

Private site where you can connect to the U. of California-Davis soils mapping website. This site contains other soil information and photos of actual soil profiles. Once on, click on the “Soil Maps Google Maps” phrase on the right hand side of the page.

Web Soil Survey website:
http://websoilsurvey.nrcs.usda.gov

1. Click the green “Start WSS” button & go to the “Address” tab located under “Quick Navigation.” Then type in the address in order to determine your area of interest. Once there, use the AOI tab above map to determine the exact area.
2. Once determined, click on the “Soil Map” tab to populate the soil information.
3. Then go to the “Soil Data Explorer” tab to get other information.
4. Click on the soil unit where you think your test pit will be located to get information on that particular map unit.
5. For more soils data while in the “Soil Data Explorer” tab, go to the “Soil Properties and Qualities” sub tab and explore there.
SURFICIAL GEOLOGY

The Massachusetts Geological Survey – Office of the State Geologist website:
http://mgs.geo.umass.edu/ - Home page

In order to locate your site in the correct quadrangle map, click on “New Surficial Materials Maps of Massachusetts Released.” Click on the publication link and there is where you will find an “Index Map” of Massachusetts with all the quadrangle maps located on it. You can also open up each map from the site by clicking on the “Individual Quadrangle map Sheets” link, as well as download all 189 quadrangle surficial geologic maps by clicking on the “Maps of Quadrangles 1-189” zip file. Another way from the home page is to:

1. Select “USGS Surficial Geology Compilations.”
2. Select the Area you want to view (Area A, area B, etc.). Once you select an area, a text page will appear.
3. Click on “quadrangle maps” highlighted in blue at the bottom of the Abstract paragraph. That will take you to a page where you can select the desired quadrangle. For an explanation of the colored mapped units, click on the “explanatory text” link found in the same abstract section as the quadrangle map’s link is found.

For access to earlier scanned surficial geologic maps which may provide additional information, from the home page click on the “Maps/Data/Pubs/Links” tab, click on “Maps, Data & Publications,” click on “Surficial Maps (NGMDB),” then click on “refine search.” Under the “Themes” category, pull down the “Geology” menu and check “Surficial.” Then go to the “State or Territory” box and click on “Massachusetts.” Then below that, select the county to narrow your search of publications. Click the “search” button and all the surficial geology reports for that county will appear. Choose the correct quadrangle surficial map link for your site. use the following link: You can also simply use the link http://ngmdb.usgs.gov/ngmdb/ngmdb_home.html and click on “Map Catalog” to get you to the Themes/State/County categories outlined above.

TOPOGRAPHIC AND ORTHOPHOTO MAPS, FLOOD ZONES, WETLANDS, SOURCE PROTECTION AREAS, ETC.

MassGIS:
http://maps.massgis.state.ma.us/map_ol/oliver.php

OR

1. Go to Mass.gov
2. In search bar, type in “MassGIS Oliver” and hit enter
3. Click on “online mapping” on the left side of the page
4. Click on “Oliver” to get into the map

From this point, or by simply going to the website above, one can add datalayers from the right hand side of the page after zooming to the site location.

IMPORTANT DATALAYERS:

- IMAGES FOLDER – USGS Topographic Maps Folder (choose USGS topographic maps layer and click on the USGS Topographic Maps layer); Aerial Photos Ortho Imagery Folder (choose Google 2018 Orthoimagery first. If nothing shows up, go to the next oldest imagery orthos
because they may not have the latest orthos for that particular area). Some orthophotos are better viewed than others so open a few to see which works best.

- **PHYSICAL RESOURCES FOLDER** – Aquifers Folder (Aquifers by yield green shade and Sole Source Aquifer layers); Hydrography Water Features Folder (DEP Wetlands folder – choose the datalayer that works best; USGS 25K Rivers and Water Bodies Folder – add rivers streams and water bodies); Public Water Supplies Folder (Public Water Supplies layer); Surficial Geology Folder (general information – use State Geologists surficial maps before using these) - can get surficial deposit depths here

- **REGULATED AREAS FOLDER** – FEMA Flood Data (most current) Folder (FEMA National Flood hazard Layer polygons); Surface Water protection Areas Folder (Zone A); Wellhead Protection Areas Folder (IWPAs and Zone II layers)

- **Other folders are available, so explore and see which ones help you better evaluate your site**

**CURRENT WATER RESOURCES CONDITIONS**

**United States Geologic Survey (USGS) Website:**
For groundwater data measured from wells throughout Massachusetts, including Real-Time and monthly manual measurements, open this link:


A map of Massachusetts wells in their Climate Response network will load up. Click on any well and then the station number to get current and historical information.

You can also google “USGS climate response network” which will take you to the national map which you can zoom in on Massachusetts for the same map.

**OTHER REFERENCES**

You can access the MassDEP well driller database through a recently developed application in the EEA data portal. This application contains all but a few of the wells that MassDEP has in its possession.

Well information: https://eeaconline.eea.state.ma.us/portal#!/search/welldrilling

Addresses and phone numbers of MassDEP offices across the Commonwealth: http://www.mass.gov/eea/agencies/massdep/about/contacts/