



nerej

Question of the Month: Can I perform a wetland delineation in winter? Plan ahead or be left out in the cold - by David Cowell

December 01, 2017 - Green Buildings

David Cowell
Hancock Associates

Each year clients ask “Can I perform wetland delineations in the winter?” My vague answer is “It depends.”

First, confirmation with the regulatory agency (whether it be federal, state or local authority) is necessary to verify that they will accept a wetland delineation performed in winter. Policies on acceptance of winter delineations vary. Some agencies mandate that wetland delineation be performed during the “growing season.” According to the Natural Resources Conservation Service (NRCS), the growing season in central New England ranges roughly between mid-April to early-October.

At the local level, many municipalities have winter delineation policies, some of which outright prohibit acceptance of wetland delineations performed in the winter. Other towns reserve the right to issue temporary prohibitions on the acceptance of wetland delineations based on weather and field conditions. It is therefore critical to coordinate with local regulatory authorities, such as Conservation Commissions, prior to executing a winter wetland delineation.

The issue is that the accurate delineation of jurisdictional wetlands is reliant on a detailed field analysis of vegetation, soils and physical signs of hydrology. Due to frozen ground conditions, snow cover, dieback of herbaceous plants and loss of deciduous leaf cover in winter, the available datum required to accurately delineate wetlands is limited and significantly reduced compared to warmer months. In consideration of whether site conditions are suitable to accurately delineate wetlands in winter, several considerations should be made.

The first consideration should be, “What are the current weather and field conditions?” Snow and frozen ground conditions present the greatest challenge to accurately delineating wetlands in winter. Snow cover buries herbaceous plant matter and covers indicators of hydrology; not to mention snow can be prohibitive to traverse on foot. Frozen ground conditions present another issue, as wetland delineations also require accurate characterization of soils. Frozen ground conditions are prohibitive to digging test pits and accurately observing the soil profile and texture.

The next consideration should be, "What are the site conditions?" Is the wetland located in a forested area or open field? Has the field been plowed or left fallow? Forested areas at least retain woody shrub and tree species for identification in the winter, whereas open fields do not have the benefit of this information. If the field is fallow, some herbaceous plants may persist and provide identifiable plant matter in the winter; however, hayfields plowed in the fall are inherently difficult to delineate in the winter due to the absence of observable plant matter. In my opinion, the absence of observable herbaceous plants in the winter is one of the leading causes of inaccuracies in winter delineations.

Another consideration in winter wetland delineations is site topography. Some wetlands are clearly pronounced, such as those located at the toe of a slope in which there is an abrupt transition to upland. Roadway shoulders are a good example. The jurisdictional wetland limit of these features may be easily distinguished even under winter conditions. On the other hand, transitional wetlands at the marginal cusp of wetland classification are inherently challenging to delineate in the best conditions, never mind trying to delineate in winter.

It should be noted that not all facets of wetland delineation in winter are doom and gloom. In the absence of herbaceous plants and leaf cover, visual line of site improves in forested or shrubby areas, allowing the observer to read topography better and look ahead to understand the landscape. It is also easier for surveyors to locate and shoot flags with improved line of sight. Provided there is no snow cover, winter is also a good time to delineate mean annual high water or stream banks. If these features are located internal to greater vegetated wetland systems, as they often are, they may be inaccessible during the wetter months of spring and summer due to standing water. Winter is also a good time of year to assess the hydrologic regime of streams in the determination of whether they are classified as perennial or intermittent.

The risks of liability in inaccurate wetland delineations performed in winter can be high, potentially resulting in project delays, lost developable area, permitting complications and money spent correcting mistakes. Ask yourself whether the wetland delineation will have significant bearing on your project. You may have a project proposed on the outer margin of a buffer zone in which a conservative delineation in winter (even lumping in some upland where uncertainty lies) will have no ramifications on your project.

On the other hand, you may have a constrained lot where every developable inch matters, in which I'd recommend waiting to delineate under better field conditions during the growing season. Winter delineations are at the mercy of weather and changing field conditions. A few heavy New England snow events or cold snaps could put all wetland delineations on hold until spring. Consider this when construction schedule matters. Plan ahead or be left out in the cold.

David Cowell, PWS, CWB, CESSWI, senior wetland scientist/project manager at Hancock Associates, Danvers, Mass.