

MAINE ASSOCIATION OF PROFESSIONAL SOIL SCIENTISTS
STANDARDS FOR SOIL SURVEY

MAINE ASSOCIATION OF PROFESSIONAL SOIL SCIENTISTS
(THE NATURAL RESOURCES CONSERVATION SERVICE)
SUPPLEMENTAL KEY FOR THE IDENTIFICATION OF SOIL DRAINAGE CLASS*

2/28/90	
4/01/92 Rev.	
4/01/93 Rev.	
4/04/94 Rev.	*(Based upon the Maine Association of Professional Soil Scientists, Key to Drainage Classes,
March 05/02)	
3/21/96 Rev.	
3/17/99 Rev.	
3/01/00 Rev.	
3/05/02 Rev.	

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Use this key starting at the first drainage class listed (very poorly drained). If the soil being evaluated does not exhibit the soil morphological

features for that drainage class, go to the next drainage class. Continue through each drainage class until the soil being evaluated meets the soil morphological features for a particular drainage class.

DRAINAGE CLASS	SOIL MORPHOLOGICAL FEATURES	COMMON SITE INDICATORS
VERY POORLY DRAINED	<p>1) Has organic soil material that extends from the surface ¹ to a depth of 16 inches or more. (Histosols) ² or, depressions</p> <p>2) Has organic soil material that extends from the surface to a depth of 8 to 16 inches (Histic Epipedon) ³ and is directly underlain by a horizon that has a depleted or gleyed matrix. or,</p> <p>3) Has organic soil material that extends from the surface to a depth of 4 to 8 inches and is directly underlain by a horizon that has a depleted or gleyed matrix or,</p>	<p>Level or nearly level; occupies lowest in the landscape. Commonly in the and is seasonally ponded or flooded.</p> <p>Common plant species include: rushes, cattails, sedges, sphagnum moss, tamarack, willow, black spruce, northern white cedar, and red maple.</p>

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4) Mineral soils with sulfidic materials within 20 inches of the mineral soil surface; Alluvial soils with an umbric epipedon or,

	<p>1) Has dominant textures in the upper 20 inches (below the "A" or "Ap" horizon if present) of loamy fine sand or coarser and has redoximorphic features or has a Bh or Bhs horizon that is value 3 or less and chroma 2 or less, which is directly underlain by a horizon with redoximorphic features, within 7 inches of the mineral soil surface; or</p> <p>2) Has an Ap horizon that is 7 inches thick or greater with a value of 3 or less and chroma of 2 or less and a texture in all subhorizons within 20 inches of the mineral soil surface of loamy fine sand or coarser and have redoximorphic features directly beneath the Ap horizon or,</p> <p>3) Has a depleted or gleyed matrix within 20 inches of the mineral soil surface and redox depletions with value 4 or more and chroma 2 or less in ped interiors that are less than 7 inches below the mineral soil surface or,</p> <p>4) Has an Ap horizon that is 7 inches thick or greater with value of 3 or less and chroma of 2 or less and has a depleted or gleyed matrix within 20 inches of the mineral soil surface and has redox depletions with value 4 or more and chroma 2 or less in ped interiors or a depleted or gleyed matrix directly beneath the Ap horizon or,</p>	<p>Level to gently sloping; sideslopes, toe depressions, and seepage areas.</p> <p>Common plant species include: sedges, alders, willow, red maple, gray birch, and aspen</p>
<p>POORLY DRAINED</p>	<p>1) Is not very poorly or poorly drained and has redoximorphic features at a depth of less than 16 inches below the mineral soil surface or,</p>	<p>Level to strongly sloping; long smooth side slopes, broad depressions and seepage areas.</p> <p>Common plant species include: red osier dogwood, alders, willow, spruce, balsam fir, red maple, elm, aspen, gray and yellow birch.</p>
<p>MODERATELY WELL DRAINED</p>	<p>2) Has redoximorphic features at a depth of 16 inches to less than 40 inches below the mineral soil surface or,</p>	<p>Level to steep; crests and upper part of long smooth slopes and broad</p>

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terraces.

Common plant species include:
 northern hardwoods, white and red
 pine, hemlock, and grasses.

WELL DRAINED

Soil depth is at least 20 inches to bedrock and has a texture of loamy very fine and or finer and redoximorphic features, if present, are 40 inches or more below the mineral soil surface.⁴ or,

Level to very steep; knolls, complex slopes and terraces.

Common plant species include:
 northern hardwoods, white and red
 pine, hemlock, and grasses

SOMEWHAT EXCESSIVELY DRAINED

1) Soil depth is 10 to 20 inches to bedrock with a loamy or loamy-skeletal particle-size class .

Level to very steep; knolls, convex slopes and terraces.

2) Soil depth is 20 inches or greater to bedrock with a sandy or sandy-skeletal particle-size class with a loamy cap 10 inches thick or greater.

Common plant species include:
 northern hardwoods, white and red
 pine, white and red spruce, hemlock,
 and grasses.

EXCESSIVELY DRAINED

1) Soil depth is less than 10 inches to bedrock.

Level to very steep; knolls, convex slopes and terraces.

2) Sandy or sandy-skeletal particle-size class with a loamy cap less than 10 inches thick.

Common plant species include:
 northern hardwoods, white and red
 pine, white and red spruce, hemlock
 and grasses. Vegetation also includes
 shrubs, ferns, mosses, and lichens.

1 Surface excludes loose leaves, needles and twigs.

2 Twenty-four inches or more if 75 percent or more of the volume is sphagnum fibers. Organic soil excludes Folists in this key.

3. Eight to 24 inches if 75 percent or more of the volume is sphagnum fibers.

4. Soils that are coarse-loamy over sandy or sandy-skeletal and lack redoximorphic features within 40 inches of the mineral soil surface also are well drained.

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