

## Wassents

Wassents are subaqueous Entisols. Defined as Entisols that have a positive water potential at the soil surface for more than 21 hours of each day. These soils are the first suborder to classify out under Entisols. The formative element Wass is derived from the German (Swiss) word “wasser” for water.

### Key to Great Groups

LAA. Wassents that have, in all horizons within 100 cm of the mineral soil surface, an electrical conductivity of  $<0.2$  dS/m in a 5/1 by volume mixture (not extract) of water and soil.

#### **Fraiwassents**

LAB. Other Wassents that have less than 35 percent (by volume) rock fragments and a texture of loamy fine sand or coarser in all layers within the particle-size control section. **Psammowassents**

LAC. Other Wassents that have a horizon or horizons with a combined thickness of at least 15 cm within 50 cm of the mineral soil surface that contain sulfidic materials. **Sulfiwassents**

LAD. Other Wassents that have, in all horizons at a depth between 20 and 50 cm below the mineral soil surface, both an  $n$  value of more than 0.7 and 8 percent or more clay in the fine earth fraction. **Hydrowassents**

LAE. Other Wassents that have *either* 0.2 percent or more organic carbon of Holocene age at a depth of 125 cm below the mineral soil surface *or* an irregular decrease in content of organic carbon from a depth of 25 cm to a depth of 125 cm or to a densic, lithic, or paralithic contact if shallower. **Fluwiwassents**

LAF. Other Wassents. **Haplowassents**

### **Fluwiwassents**

#### Key to Subgroups

LAEA. Fluwiwassents that have a horizon or horizons with a combined thickness of at least 15 cm within 100 cm of the mineral soil surface that contain sulfidic materials. **Sulfic Fluwiwassents**

LAEB. Other Fluwiwassents that have a lithic contact within 100 cm of the mineral soil surface. **Lithic Fluwiwassents**

LAEC. Other Fluwiwassents that have a buried layer of organic soil materials, 20 cm or more thick, that has its upper boundary within 100 cm of the mineral soil surface. **Thapto-Histic Fluwiwassents**

LAED. Other Fluwiwassents that have a chroma of 3 or more in 40 percent or more of the matrix of one or more horizons between a depth of 15 and 100 cm from the soil surface. **Aeric Fluwiwassents**

LAEE. Other Fluwiwassents. **Typic Fluwiwassents**

### **Fraiwassents**

#### Key to Subgroups

LAAA. Frasiwassents that have, in all horizons at a depth between 20 and 50 cm below the mineral soil surface, both an *n* value of more than 0.7 and 8 percent or more clay in the fine earth fraction. **Hydric Frasiwassents**

LAAB. Other Frasiwassents that have a lithic contact within 100 cm of the mineral soil surface. **Lithic Frasiwassents**

LAAC. Other Frasiwassents that have less than 35 percent (by volume) rock fragments and a texture of loamy fine sand or coarser in all layers within the particle-size control section. **Psammentic Frasiwassents**

LAAD. Other Frasiwassents that have a buried layer of organic soil materials, 20 cm or more thick, that has its upper boundary within 100 cm of the mineral soil surface. **Thapto-Histic Frasiwassents**

LAAE. Other Frasiwassents that have *either* 0.2 percent or more organic carbon of Holocene age at a depth of 125 cm below the mineral soil surface *or* an irregular decrease in content of organic carbon from a depth of 25 cm to a depth of 125 cm or to a densic, lithic, or paralithic contact if shallower. **Fluventic Frasiwassents**

LAAF. Other Frasiwassents that have a chroma of 3 or more in 40 percent or more of the matrix of one or more horizons between a depth of 15 and 100 cm from the soil surface. **Aeric Frasiwassents**

LAAG. Other Frasiwassents. **Typic Frasiwassents**

## **Haplowassents**

### **Key to Subgroups**

Lafa. Haplowassents that have a horizon or horizons with a combined thickness of at least 15 cm within 100 cm of the mineral soil surface that contain sulfidic materials. **Sulfic Haplowassents**

Lafb. Haplowassents that have a lithic contact within 100 cm of the mineral soil surface. **Lithic Haplowassents**

Lafc. Other Haplowassents that have a chroma of 3 or more in 40 percent or more of the matrix of one or more horizons between a depth of 15 and 100 cm from the soil surface. **Aeric Haplowassents**

lafD. Other Haplowassents **Typic Haplowassents**

## **Hydrowassents**

### **Key to Subgroups**

Lada. Hydrowassents that have a horizon or horizons with a combined thickness of at least 15 cm within 100 cm of the mineral soil surface that contain sulfidic materials. **Sulfic Hydrowassents**

Ladb. Other Hydrowassents that have, in all horizons at a depth between 20 and 100 cm below the mineral soil surface, both an *n* value of more than 0.7 and 8 percent or more clay in the fine earth fraction. **Grossic Hydrowassents**

LADC. Other Hydrowassents that have a lithic contact within 100 cm of the mineral soil surface.

**Lithic Hydrowassents**

LADD. Other Hydrowassents that have a buried layer of organic soil materials, 20 cm or more thick, that has its upper boundary within 100 cm of the mineral soil surface. **Thapto-Histic Hydrowassents**

LADE. Other Hydrowassents. **Typic Hydrowassents**

**Psammowassents**

**Key to Subgroups**

LABA. Psammowassents that have a horizon or horizons with a combined thickness of at least 15 cm within 100 cm of the mineral soil surface that contain sulfidic materials. **Sulfic Psammowassents**

LABB. Psammowassents that have a lithic contact within 100 cm of the mineral soil surface. **Lithic Psammowassents**

LABC. Other Psammowassents that have *either* 0.2 percent or more organic carbon of Holocene age at a depth of 125 cm below the mineral soil surface *or* an irregular decrease in content of organic carbon from a depth of 25 cm to a depth of 125 cm or to a densic, lithic, or paralithic contact if shallower. **Fluventic Psammowassents**

LABD. Other Psammowassents that have a chroma of 3 or more in 40 percent or more of the matrix of one or more horizons between a depth of 15 and 100 cm from the soil surface. **Aeric Psammowassents**

LABE. Other Psammowassents. **Typic Psammowassents**

**Sulfiwassents**

**Key to Subgroups**

LACA. Sulfiwassents that have a lithic contact within 100 cm of the mineral soil surface. **Lithic Sulfiwassents**

LACB. Other Sulfiwassents that have, in some horizons at a depth between 20 and 50 cm below the mineral soil surface, *either or both*: 1. An *n* value of 0.7 or less; *or* 2. Less than 8 percent clay in the fine-earth fraction. **Haplic Sulfiwassents**

LACC. Other Sulfiwassents that have a buried layer of organic soil materials, 20 cm or more thick, that has its upper boundary within 100 cm of the mineral soil surface. **Thapto-Histic Sulfiwassents**

LACD. Other Sulfiwassents that have *either* 0.2 percent or more organic carbon of Holocene age at a depth of 125 cm below the mineral soil surface *or* an irregular decrease in content of organic carbon from a depth of 25 cm to a depth of 125 cm or to a densic, lithic, or paralithic contact if shallower. **Fluventic Sulfiwassents**

LACE. Other Sulfiwassents that have a chroma of 3 or more in 40 percent or more of the matrix of one or more horizons between a depth of 15 and 100 cm from the soil surface. **Aeric Sulfiwassents**

LACF. Other Sulfiwassents. **Typic Sulfiwassents**

## **Wassists**

Wassists are subaqueous Histosols. Defined as Histosols that have a positive water potential at the soil surface for more than 21 hours of each day. These soils are the second suborder to classify out under Histosols after Folists. The formative element Wass is derived from the German (Swiss) word “wasser” for water.

### **Key to Great Groups**

BBA. Wassists that have, in all horizons within 100 cm of the mineral soil surface, an electrical conductivity of  $<0.2$  dS/m in a 5/1 by volume mixture of water and soil. **Fraiwassists**

BBB. Other Wassists that have a horizon or horizons with a combined thickness of at least 15 cm within 50 cm of the mineral soil surface that contain sulfidic materials. **Sulfiwassists**

BBC. Other Wassists. **Haplowassists**

## **Fraiwassists**

### **Key to Subgroups**

BBAA. Other Fraiwassists that:

1. Have more thickness of fibric soil materials than any other kind of organic soil material either:
  - a. In the organic parts of the subsurface tier if there is no continuous mineral layer 40 cm or more thick that has its upper boundary within the subsurface tier; or
  - b. In the combined thickness of the organic parts of the surface and subsurface tiers if there is a continuous mineral layer 40 cm or more thick that has its upper boundary within the subsurface tier; and
2. Do not have sulfidic materials within 100 cm of the soil surface.

### **Fibric Fraiwassists**

BBAB. Other Fraiwassists that have more thickness of sapric soil materials than any other kind of organic soil materials either:

1. In the organic parts of the subsurface tier if there is no continuous mineral layer 40 cm or more thick that has its upper boundary within the subsurface tier; or
2. In the combined thickness of the organic parts of the surface and subsurface tiers if there is a continuous mineral layer 40 cm or more thick that has its upper boundary within the subsurface tier.

### **Sapric Fraiwassists**

BBAC. Other Frasiwassists.

### **Typic Frasiwassists**

## **Sulfiwassists**

### **Key to Subgroups**

BBBA. Other Sulfiwassists that have more thickness of fibric soil materials than any other kind of organic soil material either:

1. In the organic parts of the subsurface tier if there is no continuous mineral layer 40 cm or more thick that has its upper boundary within the subsurface tier; or
2. In the combined thickness of the organic parts of the surface and subsurface tiers if there is a continuous mineral layer 40 cm or more thick that has its upper boundary within the subsurface tier;

### **Fibric Sulfiwassists**

BBBB. Other Sulfiwassists that have more thickness of sapric soil materials than any other kind of organic soil materials either:

1. In the organic parts of the subsurface tier if there is no continuous mineral layer 40 cm or more thick that has its upper boundary within the subsurface tier; or
2. In the combined thickness of the organic parts of the surface and subsurface tiers if there is a continuous mineral layer 40 cm or more thick that has its upper boundary within the subsurface tier.

### **Sapric Sulfiwassists**

BBBC. Other Sulfiwassists.

### **Typic Sulfiwassists**

## **Haplowassists**

### **Key to Subgroups**

BBCA. Haplowassists that have a horizon or horizons with a combined thickness of 15 cm within 100 cm of the mineral soil surface that contain sulfidic materials.

BBCB. Other Haplowassists that have more thickness of fibric soil materials than any other kind of organic soil material either:

1. In the organic parts of the subsurface tier if there is no continuous mineral layer 40 cm or more thick that has its upper boundary within the subsurface tier; or
2. In the combined thickness of the organic parts of the surface and subsurface tiers if there is a continuous mineral layer 40 cm or more thick that has its upper boundary within the subsurface tier;

### **Fibric Haplowassists**

BBC. Other Haplowassists that have more thickness of sapric soil materials than any other kind of organic soil materials either:

1. In the organic parts of the subsurface tier if there is no continuous mineral layer 40 cm or more thick that has its upper boundary within the subsurface tier; or
2. In the combined thickness of the organic parts of the surface and subsurface tiers if there is a continuous mineral layer 40 cm or more thick that has its upper boundary within the subsurface tier.

**Sapric Haplowassists**

BBCD. Other Haplowassists.

**Typic Haplowassists**