

## MAP UNITS OF HIGHLY ERODIBLE LAND

### INTRODUCTION

Natural processes continually create new soil from the raw underlying parent material or from bedrock. For most soils in the State, these processes offset about 3 tons per acre of erosion each year. Erosion slower than the rate of replacement is considered "tolerable". Each soil is assigned a tolerance value based mainly on the thickness of the soil above bedrock or unaltered parent material.

Soil Conservation Service Soil Scientists and Soil Conservationists determine if a soil or map unit is highly erodible or potentially highly erodible due to sheet and rill erosion. This is done by using the Universal Soil Loss Equation (USLE). The USLE relates the effects of rainfall, soil characteristics, and length and steepness of slope to the soil's tolerable erosion rate by water.

### DEFINITION OF HIGHLY ERODIBLE SOIL

A highly erodible soil/map unit is a soil with a maximum potential for erosion that equals or exceeds eight times the tolerable erosion rate. This can be represented by the formula -  $RKLS/T \geq 8$ . The formula does not consider crop management or conservation practices, which influence the actual erosion rate.

### CRITERIA FOR HIGHLY ERODIBLE SOIL MAP UNITS

The procedure used to determine whether a given soil map unit qualifies as highly erodible land or potentially highly erodible land follows:

- Step 1. For each soil map unit in the county soil legend, calculate the minimum LS value required for  $RKLS/T \geq 8$  by solving for LS, ie.  $LS = 8T/RK$ .
- Step 2. For the specific combinations of slope and steepness specified in Steps 3 and 4, obtain LS values from table 3 in the Appendices (from Agriculture Handbook 537, December, 1978).
- Step 3. A soil map unit qualifies as highly erodible land if the LS value for the shortest length and minimum percent of slope expected for the unit equals or exceeds the minimum value calculated in Step 1, ie.  $LS = 8T/RK$ . See Appendices A-F.

Step 4. A soil map unit qualifies as potentially highly erodible land if --

- a. The LS value for the shortest length and minimum percent of slope expected for the unit is less than  $8T/RK$  and
- b. The LS value for the longest length and maximum percent of slope expected for the unit exceeds  $8T/RK$ .

See Apendices A-F.

This information is to be used in conjunction with published county soil surveys.

List of Map Units that Qualify as Potentially Highly Erodible Land

Middlesex County, Connecticut  
(Correlated and Published, 1980)

AfB	Agawam fine sandy loam, 3 to 8 percent slopes
BoB	Branford silt loam, 3 to 8 percent slopes
CbB	Canton and Charlton fine sandy loams, 3 to 8 percent slopes
CsB	Cheshire silt loam, 3 to 8 percent slopes
HfB	Hartford sandy loam, 3 to 8 percent slopes
HkC	Hinckley gravelly sandy loam, 3 to 15 percent slopes
LpB	Ludlow silt loam, 3 to 8 percent slopes
MgC	Manchester gravelly sandy loam, 3 to 15 percent slopes
MyB	Merrimac sandy loam, 3 to 10 percent slopes
PbB	Paxton and Montauk fine sandy loams, 3 to 8 percent slopes
WkB	Wethersfield loam, 3 to 8 percent slopes
WxB	Woodbridge fine sandy loam, 3 to 8 percent slopes
YaB	Yalesville fine sandy loam, 3 to 8 percent slopes

List of Map Units that Qualify as Highly Erodible Land

Middlesex County, Connecticut  
(Correlated and Published, 1980)

BoC	Branford silt loam, 8 to 15 percent slopes
CsC	Cheshire silt loam, 8 to 15 percent slopes
HME	Hinckley and Manchester soils, 15 to 45 percent slopes
PbC	Paxton and Montauk fine sandy loams, 8 to 15 percent slopes
PbD	Paxton and Montauk fine sandy loams, 15 to 25 percent slopes
WkC	Wethersfield loam, 8 to 15 percent slopes
WkD	Wethersfield loam, 15 to 35 percent slopes
YaC	Yalesville fine sandy loam, 8 to 15 percent slopes

LIST OF MAP UNITS THAT QUALIFY AS ADDITIONAL FARMLAND OF STATEWIDE IMPORTANCE

Yellow

Middlesex County, Connecticut - Correlated and Published, 1980

Map Unit	Description	Class
BoC	Branford silt loam, 8 to 15 percent slopes	III
CsC	Cheshire silt loam, 8 to 15 percent slopes	III
HkC	Hinckley gravelly sandy loam, 3 to 15 percent slopes	IV
MgA	Manchester gravelly sandy loam, 0 to 3 percent slopes	III
MgC	Manchester gravelly sandy loam, 3 to 15 percent slopes	IV
PbC	Paxton & Montauk fine sandy loams, 8 to 15 percent slopes	III
PnA	Penwood loamy sand, 0 to 3 percent slopes	III
PnB	Penwood loamy sand, 3 to 8 percent slopes	III
Rb	Raypol silt loam	III
Ru	Rumney fine sandy loam	III
Rv	Rumney Variant silt loam	III
St	Suncook loamy sand	III
Wd	Walpole sandy loam	III
WkC	Wethersfield loam, 8 to 15 percent slopes	III
Wr	Wilbraham silt loam	III
WvA	Windsor loamy sand, 0 to 3 percent slopes	III
WvB	Windsor loamy sand, 3 to 8 percent slopes	III
YaC	Yalesville fine sandy loam, 8 to 15 percent slopes	III

6/13/83  
gr

INLAND WETLAND SOILS - MIDDLESEX COUNTY  
(REGULATED UNDER P.A. 155)

NEW SYMBOL	OLD SYMBOL(S)	NAME
Aa	91	Adrian muck
Ce	92	Carlisle muck
LG	43M	Leicester, Ridgebury & Whitman extremely stony fine sandy loams
Ps	816	Podunk fine sandy loam
Rb	483 640 753	Raypol silt loam
Ru	855	Rumney fine sandy loam
Rv	71V 83V 643	Rumney Variant silt loam
Sb	823	Saco silt loam
Sc	754	Scarboro mucky loamy fine sand
St	807	Suncook loamy sand
Wd	464	Walpole sandy loam
We	TM	Westbrook mucky peat
Wh	TME	Westbrook mucky peat, low salt
Wr	284	Wilbraham silt loam
Wt	284M	Wilbraham extremely stony silt loam

3/10/80  
gdr

LIST OF MAP UNITS THAT QUALIFY AS PRIME FARMLAND

Middlesex County, Connecticut - Correlated and Published, 1980

Map Unit	Description	Class
AfA	Agawam fine sandy loam, 0 to 3 percent slopes	I
AfB	Agawam fine sandy loam, 3 to 8 percent slopes	II
BcA	Berlin silt loam, 0 to 5 percent slopes	I
BoA	Branford silt loam, 0 to 3 percent slopes	I
BoB	Branford silt loam, 3 to 8 percent slopes	II
CbB	Canton & Charlton fine sandy loams, 3 to 8 percent slopes	II
CsB	Cheshire silt loam, 3 to 8 percent slopes	II
EfA	Ellington fine sandy loam, 0 to 5 percent slopes	II
HfA	Hartford sandy loam, 0 to 3 percent slopes	II
HfB	Hartford sandy loam, 3 to 8 percent slopes	II
LpA	Ludlow silt loam, 0 to 3 percent slopes	II
LpB	Ludlow silt loam, 3 to 8 percent slopes	II
MyA	Merrimac sandy loam, 0 to 3 percent slopes	II
MyB	Merrimac sandy loam, 3 to 10 percent slopes	II
NnA	Ninigret fine sandy loam, 0 to 5 percent slopes	II
PbB	Paxton & Montauk fine sandy loams, 3 to 8 percent slopes	II
Ps	Podunk fine sandy loam <u>1/</u>	II
SgA	Sudbury sandy loam, 0 to 5 percent slopes	II
WkB	Wethersfield loam, 3 to 8 percent slopes	II
WxA	Woodbridge fine sandy loam, 0 to 3 percent slopes	II
WxB	Woodbridge fine sandy loam, 3 to 8 percent slopes	II
YaB	Yalesville fine sandy loam, 3 to 8 percent slopes	II

1/ Typically not flooded during the growing season

6/13/83  
gr

15-3 ENFORCEMENT

Substitute House Bill No. 6369

PUBLIC ACT NO. 87-244

AN ACT CONCERNING SOIL EROSION AND SEDIMENT CONTROL ORDERS.

Be it enacted by the Senate and House of Representatives in General Assembly convened:

Section 8-12 of the general statutes is repealed and the following is substituted in lieu thereof:

If any building or structure has been erected, constructed, altered, converted or maintained, or any building, structure or land has been used, in violation of any provision of this chapter or of any bylaw, ordinance, rule or regulation made under authority conferred hereby, any official having jurisdiction, in addition to other remedies, may institute an action or proceeding to prevent such unlawful erection, construction, alteration, conversion, maintenance or use or to restrain, correct or abate such violation or to prevent the occupancy of such building, structure or land or to prevent any illegal act, conduct, business or use in or about such premises. Such regulations shall be enforced by the officer or official board or authority designated therein, who shall be authorized to cause any building, structure, place or premises to be inspected and examined and to order in writing the remedying of any condition found to exist therein or thereon in violation of any provision of the regulations made under authority of the provisions of this chapter or, when the violation involves grading of land [or] the removal of earth OR SOIL EROSION AND SEDIMENT CONTROL, to issue, in writing, a cease and desist order to be effective immediately. The owner or agent of any building or premises where a violation of any provision of such regulations has been committed or exists, or the lessee or tenant of an entire building or entire premises where such violation has been committed or exists, or the owner, agent, lessee or tenant of any part of the building or premises in which such violation has been committed or exists, or the agent, architect, builder, contractor or any other person who commits, takes part or assists in any such violation or who maintains any building or premises in which any such violation exists, shall be fined not less than ten nor more than one hundred dollars for each day that such violation continues; but, if the offense is wilful, the



Substitute House Bill No. 6369

person convicted thereof shall be fined not less than one hundred dollars nor more than two hundred and fifty dollars for each day that such violation continues, or imprisoned not more than ten days for each day such violation continues or both; and the superior court shall have jurisdiction of all such offenses, subject to appeal as in other cases. Any person who, having been served with an order to discontinue any such violation, fails to comply with such order within ten days after such service, or having been served with a cease and desist order with respect to a violation involving grading of land [or], removal of earth OR SOIL EROSION AND SEDIMENT CONTROL, fails to comply with such order immediately, or continues to violate any provision of the regulations made under authority of the provisions of this chapter specified in such order shall be subject to a civil penalty of five hundred dollars, payable to the treasurer of the municipality. In any criminal prosecution under this section, the defendant may plead in abatement that such criminal prosecution is based on a zoning ordinance or regulation which is the subject of a civil action wherein one of the issues is the interpretation of such ordinance or regulations, and that the issues in the civil action are such that the prosecution would fail if the civil action results in an interpretation different from that claimed by the state in the criminal prosecution. If the court renders judgment for such municipality and finds that the violation was wilful, the court shall allow such municipality its costs, together with reasonable attorney's fees to be taxed by the court. The court before which such prosecution is pending may order such prosecution abated if it finds that the allegations of the plea are true.

Certified as correct by

\_\_\_\_\_  
*Legislative Commissioner.*

\_\_\_\_\_  
*Clerk of the Senate.*

\_\_\_\_\_  
*Clerk of the House.*

Approved \_\_\_\_\_, 1987

\_\_\_\_\_  
*Governor, State of Connecticut.*