

Highly Erodible Soil Map Unit List - East Marshall County, MN

C= 0.25

R= 80

This data is only to be used for HEL determinations

This is the "frozen data" based on 01/01/1990 information. Values other than "HELC" should only be used for PHEL.

| Mapunit Symbol | Mapunit Name                                   | HELC | T | K | I   | Slope Percent | Slope Length | LS |
|----------------|--|------|---|---|-----|---------------|--------------|----|
| 58             | Kittson loam                                   | NHEL | 5 |   | 56  |               |              |    |
| 59             | Grimstad fine sandy loam                       | NHEL | 5 |   | 86  |               |              |    |
| 65             | Foxhome sandy loam                             | NHEL | 3 |   | 86  |               |              |    |
| 66             | Flaming loamy fine sand                        | NHEL | 5 |   | 134 |               |              |    |
| 77             | Garnes fine sandy loam                         | NHEL | 5 |   | 48  |               |              |    |
| 111            | Hangaard sandy loam                            | HEL  | 2 |   | 86  |               |              |    |
| 116            | Redby loamy fine sand, 0 to 3 percent slopes   | NHEL | 5 |   | 134 |               |              |    |
| 117            | Cormant loamy fine sand, 0 to 2 percent slopes | NHEL | 5 |   | 134 |               |              |    |
| 145            | Enstrom loamy fine sand                        | NHEL | 5 |   | 134 |               |              |    |
| 148            | Poppleton fine sand                            | NHEL | 5 |   | 134 |               |              |    |
| 184A           | Hamerly loam, 0 to 3 percent slopes            | NHEL | 5 |   | 86  |               |              |    |
| 187            | Haug muck                                      | NHEL | 5 |   | 134 |               |              |    |
| 205            | Karlstad loamy sand, 0 to 3 percent slopes     | HEL  | 3 |   | 134 |               |              |    |

|      |   |      |   |  |     |  |  |  |
|------|---|------|---|--|-----|--|--|--|
| 242B | Marquette loamy sand, 1 to 6 percent slopes                     | HEL  | 2 |  | 134 |  |  |  |
| 280  | Pelan sandy loam  | HEL  | 3 |  | 86  |  |  |  |
| 372  | Hamar loamy fine sand   | NHEL | 5 |  | 134 |  |  |  |
| 383  | Percy loam  | NHEL | 5 |  | 86  |  |  |  |
| 384  | Percy mucky loam, depressional                                  | NHEL | 5 |  | 134 |  |  |  |
| 387  | Roliss loam, depressional                                       | NHEL | 5 |  | 48  |  |  |  |
| 412  | Mavie fine sandy loam   | NHEL | 3 |  | 86  |  |  |  |
| 426  | Foldahl loamy fine sand   | NHEL | 5 |  | 134 |  |  |  |
| 432  | Strandquist loam  | NHEL | 3 |  | 86  |  |  |  |
| 439  | Strathcona fine sandy loam                                      | NHEL | 5 |  | 86  |  |  |  |
| 481  | Kratka fine sandy loam  | NHEL | 5 |  | 86  |  |  |  |
| 482  | Grygla loamy fine sand  | NHEL | 5 |  | 134 |  |  |  |
| 514  | Tacoosh muck  | NHEL | 5 |  | 56  |  |  |  |
| 540  | Seelyeville-Seelyeville, ponded, complex, 0 to 1 percent slopes | NHEL | 5 |  | 134 |  |  |  |
| 541  | Rifle-Rifle, ponded, complex, 0 to 1 percent slopes             | NHEL | 5 |  | 56  |  |  |  |
| 543  | Markey muck, occasionally ponded, 0 to 1 percent slopes         | HEL  | 4 |  | 134 |  |  |  |
| 544  | Cathro muck, occasionally ponded, 0 to 1 percent slopes         | NHEL | 5 |  | 134 |  |  |  |

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|------|---|------|---|--|-----|--|--|--|
| 547  | Deerwood muck                               | HEL  | 3 |  | 134 |  |  |  |
| 563  | Northwood muck                              | NHEL | 5 |  | 134 |  |  |  |
| 565  | Eckvoll loamy fine sand                     | NHEL | 5 |  | 134 |  |  |  |
| 582  | Roliss loam                                 | NHEL | 5 |  | 48  |  |  |  |
| 649  | Reiner loamy fine sand                      | NHEL | 5 |  | 134 |  |  |  |
| 650  | Reiner fine sandy loam                      | NHEL | 5 |  | 86  |  |  |  |
| 653  | Smiley mucky loam, depressional             | NHEL | 5 |  | 56  |  |  |  |
| 712  | Rosewood fine sandy loam                    | NHEL | 3 |  | 86  |  |  |  |
| 713  | Linveldt fine sandy loam                    | NHEL | 5 |  | 134 |  |  |  |
| 765  | Smiley loam                                 | NHEL | 5 |  | 56  |  |  |  |
| 794  | Clearriver loamy fine sand                  | NHEL | 5 |  | 134 |  |  |  |
| 1030 | Pits, gravel-Udipsamments complex           | NHEL | 5 |  | 134 |  |  |  |
| 1143 | Berner-Markey complex                       | HEL  | 4 |  | 134 |  |  |  |
| 1144 | Strathcona and Kratka soils, depressional   | NHEL | 5 |  | 86  |  |  |  |
| 1146 | Northwood muck, ponded                      | NHEL | 5 |  |     |  |  |  |
| 1191 | Epoufette sandy loam, 0 to 2 percent slopes | NHEL | 5 |  | 86  |  |  |  |
| 1264 | Ulen loamy fine sand                        | NHEL | 5 |  | 134 |  |  |  |

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|------|--|------|---|--|-----|--|--|--|
| 1804 | Hamre muck, ponded   | NHEL | 5 |  |     |  |  |  |
| 1807 | Cathro muck, ponded  | NHEL | 5 |  |     |  |  |  |
| 1808 | Markey muck, ponded  | NHEL | 4 |  |     |  |  |  |
| 1874 | Radium loamy sand  | NHEL | 5 |  | 134 |  |  |  |
| 1878 | Hamre muck   | NHEL | 5 |  | 134 |  |  |  |
| 1882 | Rosewood, Strathcona, and Berner soils, seepy                              | NHEL | 3 |  | 86  |  |  |  |
| 1966 | Rosewood-Hamar complex   | NHEL | 3 |  | 86  |  |  |  |
| I6A  | Borup very fine sandy loam, 0 to 1 percent slopes                          | NHEL | 4 |  | 86  |  |  |  |
| I8A  | Cathro muck, 0 to 1 percent slopes   | NHEL | 5 |  | 134 |  |  |  |
| I9A  | Clearwater clay, 0 to 2 percent slopes                                     | NHEL | 5 |  | 86  |  |  |  |
| I10A | Clearwater mucky clay loam, 0 to 1 percent slopes                          | NHEL | 5 |  | 134 |  |  |  |
| I11A | Deerwood muck, 0 to 1 percent slopes                                       | HEL  | 3 |  | 134 |  |  |  |
| I12A | Eckvoll loamy fine sand, 0 to 2 percent slopes                             | NHEL | 5 |  | 134 |  |  |  |
| I13A | Espelie fine sandy loam, clayey till substratum, 0 to 1 percent slopes     | NHEL | 4 |  | 86  |  |  |  |
| I15A | Hecla loamy fine sand, 0 to 2 percent slopes                               | NHEL | 5 |  | 134 |  |  |  |
| I16F | Fluvaquents, frequently flooded-Hapludolls complex, 0 to 30 percent slopes | NHEL | 5 |  | 86  |  |  |  |
| I17A | Foldahl fine sandy loam, loamy till substratum, 0 to 3 percent slopes      | NHEL | 5 |  | 134 |  |  |  |

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|------|---|------|---|--|-----|--|--|--|
| I18A | Foldahl loamy fine sand, loamy till substratum, 0 to 3 percent slopes | NHEL | 5 |  | 134 |  |  |  |
| I19A | Foxhome sandy loam, 0 to 2 percent slopes                             | NHEL | 3 |  | 86  |  |  |  |
| I20A | Foxlake loam, 0 to 1 percent slopes                                   | NHEL | 5 |  | 56  |  |  |  |
| I23A | Glyndon very fine sandy loam, 0 to 2 percent slopes                   | NHEL | 5 |  | 86  |  |  |  |
| I24A | Grimstad fine sandy loam, 0 to 3 percent slopes                       | NHEL | 5 |  | 86  |  |  |  |
| I25A | Hamar loamy fine sand, Aspen Parkland, 0 to 1 percent slopes          | NHEL | 5 |  | 134 |  |  |  |
| I26A | Hamerly loam, 0 to 2 percent slopes                                   | NHEL | 5 |  | 86  |  |  |  |
| I27A | Hamre muck, 0 to 1 percent slopes                                     | NHEL | 5 |  | 134 |  |  |  |
| I28A | Hangaard sandy loam, 0 to 2 percent slopes                            | HEL  | 2 |  | 86  |  |  |  |
| I33A | Hilaire loamy fine sand, 0 to 2 percent slopes                        | HEL  | 4 |  | 134 |  |  |  |
| I34A | Huot fine sandy loam, clayey till substratum, 0 to 2 percent slopes   | NHEL | 4 |  | 86  |  |  |  |
| I37A | Kratka and Strathcona soils, 0 to 1 percent slopes                    | NHEL | 5 |  | 86  |  |  |  |
| I38A | Kratka fine sandy loam, loamy till substratum, 0 to 1 percent slopes  | NHEL | 5 |  | 86  |  |  |  |
| I39A | Linvelde fine sandy loam, 0 to 2 percent slopes                       | NHEL | 5 |  | 134 |  |  |  |
| I41A | Markey muck, 0 to 1 percent slopes                                    | HEL  | 4 |  | 134 |  |  |  |
| I42A | Markey muck, ponded, 0 to 1 percent slopes                            | NHEL | 4 |  |     |  |  |  |
| I43A | Mavie fine sandy loam, 0 to 1 percent slopes                          | NHEL | 3 |  | 86  |  |  |  |

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|------|--|------|---|--|-----|--|--|--|
| I44A | Newfolden loam, 0 to 2 percent slopes                                      | NHEL | 5 |  | 56  |  |  |  |
| I45A | Northwood muck, 0 to 1 percent slopes                                      | NHEL | 5 |  | 134 |  |  |  |
| I47A | Poppleton fine sand, 0 to 2 percent slopes                                 | NHEL | 5 |  | 134 |  |  |  |
| I48A | Radium loamy sand, 0 to 2 percent slopes                                   | NHEL | 5 |  | 134 |  |  |  |
| I50A | Reiner fine sandy loam, 0 to 2 percent slopes                              | NHEL | 5 |  | 86  |  |  |  |
| I51A | Reiner loamy fine sand, 0 to 3 percent slopes                              | NHEL | 5 |  | 134 |  |  |  |
| I52A | Reis-Clearwater complex, 0 to 1 percent slopes                             | NHEL | 5 |  | 86  |  |  |  |
| I53A | Roliss loam, 0 to 2 percent slopes   | NHEL | 5 |  | 48  |  |  |  |
| I54A | Roliss loam, very poorly drained, 0 to 1 percent slopes                    | NHEL | 5 |  | 48  |  |  |  |
| I55A | Rosewood fine sandy loam, Aspen Parkland, 0 to 1 percent slopes            | NHEL | 3 |  | 86  |  |  |  |
| I57B | Sandberg-Radium complex, 0 to 6 percent slopes                             | NHEL | 5 |  | 134 |  |  |  |
| I58A | Seelyeville muck, 0 to 1 percent slopes                                    | NHEL | 5 |  | 134 |  |  |  |
| I59A | Smiley loam, 0 to 1 percent slopes   | NHEL | 5 |  | 56  |  |  |  |
| I60A | Smiley mucky loam, 0 to 1 percent slopes                                   | NHEL | 5 |  | 56  |  |  |  |
| I61A | Strandquist loam, 0 to 1 percent slopes                                    | NHEL | 3 |  | 86  |  |  |  |
| I62A | Syrene sandy loam, 0 to 2 percent slopes                                   | NHEL | 3 |  | 86  |  |  |  |
| I63A | Thief river fine sandy loam, clayey till substratum, 0 to 1 percent slopes | NHEL | 3 |  | 86  |  |  |  |

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|------|--|------|---|--|-----|--|--|--|
| I64A | Ulen fine sandy loam, Aspen Parkland, 0 to 2 percent slopes  | NHEL | 5 |  | 134 |  |  |  |
| I65A | Ulen loamy fine sand, 0 to 2 percent slopes                  | NHEL | 5 |  | 134 |  |  |  |
| I66A | Vallers loam, 0 to 2 percent slopes                          | NHEL | 5 |  | 86  |  |  |  |
| I69A | Wyandotte clay loam, 0 to 1 percent slopes                   | NHEL | 3 |  | 86  |  |  |  |
| I70A | Strathcona fine sandy loam, 0 to 1 percent slopes            | NHEL | 5 |  | 86  |  |  |  |
| I71A | Berner and Cathro soils, ponded, 0 to 1 percent slopes       | NHEL | 5 |  |     |  |  |  |
| I72A | Pelan sandy loam, 0 to 2 percent slopes                      | HEL  | 3 |  | 86  |  |  |  |
| I73A | Boash clay loam, 0 to 2 percent slopes                       | NHEL | 5 |  | 86  |  |  |  |
| I75A | Radium-Sandberg-Garborg complex, 0 to 2 percent slopes       | NHEL | 5 |  | 134 |  |  |  |
| I76A | Karlstad loamy sand, 0 to 2 percent slopes                   | HEL  | 3 |  | 134 |  |  |  |
| I77A | Deerwood muck, dense till, 0 to 1 percent slopes             | HEL  | 3 |  | 134 |  |  |  |
| I78B | Marquette loamy sand, 2 to 9 percent slopes                  | HEL  | 2 |  | 134 |  |  |  |
| I79A | Berner, Cathro and Haug soils, ponded, 0 to 1 percent slopes | NHEL | 5 |  |     |  |  |  |
| I81A | Northwood muck, dense till, 0 to 1 percent slopes            | NHEL | 5 |  | 134 |  |  |  |
| I82A | Cathro muck, dense till, 0 to 1 percent slopes               | NHEL | 5 |  |     |  |  |  |
| I84A | Percy loam, 0 to 1 percent slopes, very cobbly               | NHEL | 5 |  |     |  |  |  |
| I86A | Percy mucky loam, 0 to 1 percent slopes                      | NHEL | 5 |  | 134 |  |  |  |

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|-------|--|------|---|--|-----|--|--|--|
| I87A  | Pelan sandy loam, dense till, 0 to 2 percent slopes            | HEL  | 3 |  | 86  |  |  |  |
| I88A  | Haug muck, 0 to 1 percent slopes                               | NHEL | 5 |  | 134 |  |  |  |
| I89A  | Nereson fine sandy loam, 0 to 2 percent slopes, very cobbly    | NHEL | 5 |  | 86  |  |  |  |
| I90A  | Redby loamy fine sand, dense till, 0 to 3 percent slopes       | NHEL | 5 |  | 134 |  |  |  |
| I91A  | Rosewood fine sandy loam, dense till, 0 to 1 percent slopes    | NHEL | 3 |  | 86  |  |  |  |
| I94A  | Strathcona fine sandy loam, dense till, 0 to 1 percent slopes  | NHEL | 5 |  | 86  |  |  |  |
| I95A  | Kratka and Strathcona soils, dense till, 0 to 1 percent slopes | NHEL | 5 |  | 86  |  |  |  |
| I97A  | Cormant loamy fine sand, dense till, 0 to 2 percent slopes     | NHEL | 5 |  | 134 |  |  |  |
| I98A  | Ulen fine sandy loam, dense till, 0 to 2 percent slopes        | NHEL | 5 |  | 134 |  |  |  |
| I99A  | Berner muck, dense till, 0 to 1 percent slopes                 | HEL  | 4 |  | 134 |  |  |  |
| I101A | Foxhome sandy loam, dense till, 0 to 2 percent slopes          | NHEL | 3 |  | 86  |  |  |  |
| I102A | Mavie fine sandy loam, dense till, 0 to 1 percent slopes       | NHEL | 3 |  | 86  |  |  |  |
| I103A | Kratka fine sandy loam, dense till, 0 to 1 percent slopes      | NHEL | 5 |  | 86  |  |  |  |
| I104A | Strandquist loam, dense till, 0 to 1 percent slopes            | NHEL | 3 |  | 86  |  |  |  |
| I105A | Hangaard sandy loam, dense till, 0 to 2 percent slopes         | HEL  | 2 |  | 86  |  |  |  |
| I106A | Enstrom loamy fine sand, dense till, 0 to 2 percent slopes     | NHEL | 5 |  | 134 |  |  |  |
| I108A | Syrene sandy loam, dense till, 0 to 2 percent slopes           | NHEL | 3 |  | 86  |  |  |  |



|       |  |      |   |  |     |  |  |  |
|-------|--|------|---|--|-----|--|--|--|
| I109A | Fluvaquents, 0 to 2 percent slopes, frequently flooded                       | NHEL | 5 |  | 86  |  |  |  |
| I110A | Augsburg, Borup and Colvin soils, very poorly drained, 0 to 1 percent slopes | NHEL | 4 |  | 86  |  |  |  |
| I111A | Wheatville very fine sandy loam, 0 to 2 percent slopes                       | NHEL | 4 |  | 86  |  |  |  |
| I112A | Augsburg very fine sandy loam, 0 to 1 percent slopes                         | NHEL | 4 |  | 86  |  |  |  |
| I113A | Grimstad fine sandy loam, dense till, 0 to 2 percent slopes                  | NHEL | 5 |  | 86  |  |  |  |
| I114A | Foldahl fine sandy loam, dense till, 0 to 2 percent slopes                   | NHEL | 5 |  | 134 |  |  |  |
| I116A | Grygla loamy fine sand, dense till, 0 to 1 percent slopes                    | NHEL | 5 |  | 134 |  |  |  |
| I117A | Skagen loam, dense till, 0 to 2 percent slopes, very cobbly                  | NHEL | 5 |  | 86  |  |  |  |
| I118A | Poppleton fine sand, dense till, 0 to 2 percent slopes                       | NHEL | 5 |  | 134 |  |  |  |
| I119A | Bearden silty clay loam, 0 to 2 percent slopes                               | NHEL | 5 |  | 86  |  |  |  |
| I121A | Glyndon-Ulen complex, 0 to 2 percent slopes                                  | NHEL | 5 |  | 86  |  |  |  |
| I123A | Bearden-Colvin silty clay loams, 0 to 2 percent slopes                       | NHEL | 5 |  | 86  |  |  |  |
| I124A | Colvin-Fargo complex, 0 to 1 percent slopes                                  | NHEL | 5 |  | 86  |  |  |  |
| I125A | Skagen loam, dense till, 0 to 2 percent slopes                               | NHEL | 5 |  | 86  |  |  |  |
| I126A | Nereson fine sandy loam, 0 to 2 percent slopes                               | NHEL | 5 |  | 86  |  |  |  |
| I127A | Percy loam, 0 to 1 percent slopes  | NHEL | 5 |  | 86  |  |  |  |
| I130A | Hegne-Fargo silty clays, 0 to 1 percent slopes                               | NHEL | 5 |  | 86  |  |  |  |

|       |  |      |   |  |     |  |  |  |
|-------|--|------|---|--|-----|--|--|--|
| I132A | Northcote-Eaglepoint clays, 0 to 1 percent slopes                    | NHEL | 5 |  | 86  |  |  |  |
| I133A | Northcote clay, 0 to 1 percent slopes                                | NHEL | 5 |  | 86  |  |  |  |
| I135B | Wahpeton-Ludden silty clays, 0 to 6 percent slopes, flooded          | NHEL | 5 |  | 86  |  |  |  |
| I150B | Zell, fine-silty-LaDelle silt loams, 2 to 6 percent slopes           | NHEL | 5 |  | 86  |  |  |  |
| I171A | Rockwell fine sandy loam, 0 to 1 percent slopes                      | NHEL | 5 |  | 86  |  |  |  |
| I229A | Fargo silty clay, 0 to 1 percent slopes                              | NHEL | 5 |  | 86  |  |  |  |
| I248A | Wahpeton silty clay, 0 to 2 percent slopes, occasionally flooded     | NHEL | 5 |  | 86  |  |  |  |
| I248B | Wahpeton silty clay, 2 to 6 percent slopes, occasionally flooded     | NHEL | 5 |  | 86  |  |  |  |
| I260A | Rifle mucky peat, 0 to 1 percent slopes                              | NHEL | 5 |  | 56  |  |  |  |
| I376A | Colvin silty clay loam, 0 to 1 percent slopes                        | NHEL | 5 |  | 86  |  |  |  |
| I467A | Bearden silt loam, 0 to 2 percent slopes                             | NHEL | 5 |  | 86  |  |  |  |
| I475B | Sinai silty clay, levees, 0 to 6 percent slopes                      | NHEL | 5 |  | 86  |  |  |  |
| I478A | Lamoure silty clay loam, 0 to 1 percent slopes, occasionally flooded | NHEL | 5 |  | 86  |  |  |  |
| I507B | Glyndon loam, dry, 2 to 6 percent slopes                             | NHEL | 5 |  | 86  |  |  |  |
| I573A | Cormant loamy sand, 0 to 1 percent slopes                            | NHEL | 5 |  | 134 |  |  |  |
| I620A | Clearwater-Reis clay loams, 0 to 1 percent slopes                    | NHEL | 5 |  | 86  |  |  |  |
| I690A | Kittson loam, wet, 0 to 2 percent slopes                             | NHEL | 5 |  | 56  |  |  |  |

|       |   |      |   |  |     |  |  |  |
|-------|---|------|---|--|-----|--|--|--|
| I693A | Garnes fine sandy loam, 0 to 2 percent slopes                       | NHEL | 5 |  | 48  |  |  |  |
| I705A | Roliss loam, dense till, 0 to 1 percent slopes                      | NHEL | 5 |  | 48  |  |  |  |
| I706A | Roliss loam, very poorly drained, dense till, 0 to 1 percent slopes | NHEL | 5 |  | 48  |  |  |  |
| I707A | Roliss-Vallers loams, 0 to 1 percent slopes                         | NHEL | 5 |  | 86  |  |  |  |
| I727B | Corliss loamy sand, 2 to 6 percent slopes                           | NHEL | 5 |  | 134 |  |  |  |
| I739A | Dora muck, 0 to 1 percent slopes                                    | HEL  | 4 |  | 134 |  |  |  |
| I740A | Dora muck, ponded, 0 to 1 percent slopes                            | NHEL | 4 |  |     |  |  |  |
| I747A | Enstrom loamy fine sand, 0 to 2 percent slopes                      | NHEL | 5 |  | 134 |  |  |  |
| I756A | Grygla loamy fine sand, 0 to 1 percent slopes                       | NHEL | 5 |  | 134 |  |  |  |
| I763A | Hilaire fine sandy loam, 0 to 2 percent slopes                      | HEL  | 4 |  | 134 |  |  |  |
| I788A | Rosewood, Strathcona, and Berner soils, 0 to 1 percent slopes       | NHEL | 3 |  | 86  |  |  |  |
| I804A | Eckvoll loamy fine sand, dense till, 0 to 2 percent slopes          | NHEL | 5 |  | 134 |  |  |  |
| I811A | Linvelde fine sandy loam, dense till, 0 to 2 percent slopes         | NHEL | 5 |  | 134 |  |  |  |
| I816A | Berner-Markey mucks, 0 to 1 percent slopes                          | HEL  | 4 |  | 134 |  |  |  |
| I822A | Reiner loamy fine sand, dense till, 0 to 2 percent slopes           | NHEL | 5 |  | 134 |  |  |  |
| I824A | Rushlake loamy sand, 0 to 2 percent slopes                          | NHEL | 5 |  | 134 |  |  |  |
| I833A | Wildwood muck, 0 to 1 percent slopes                                | HEL  | 3 |  | 134 |  |  |  |

|       |  |      |   |  |     |  |  |  |
|-------|--|------|---|--|-----|--|--|--|
| I850A | Thief river fine sandy loam, 0 to 1 percent slopes | NHEL | 3 |  | 86  |  |  |  |
| IGp   | Pits, gravel and sand                              | NHEL | 5 |  | 134 |  |  |  |
| IM-W  | Miscellaneous water                                |      |   |  |     |  |  |  |
| IWa   | Water  |      |   |  |     |  |  |  |
| W     | Water  |      |   |  |     |  |  |  |