

SANITARY FACILITIES
Dunn County, North Dakota

The following tables show the degree and kind of soil limitations that affect septic tank absorption fields, sewage lagoons, sanitary landfills, and daily cover for landfill. The ratings are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect these uses. Not limited indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. Slight limitation indicates that the soil has features that are favorable for the specified use. The limitations are minor and can be easily overcome. Good performance and low maintenance can be expected. Moderate limitation indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. Severely limited indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Septic tank absorption fields are areas in which effluent from a septic tank is distributed into the soil through subsurface tiles or perforated pipe. Only that part of the soil between depths of 24 and 60 inches is evaluated. The ratings are based on the soil properties that affect absorption of the effluent, construction and maintenance of the system, and public health. Permeability, depth to a water table, ponding, depth to bedrock or a cemented pan, and flooding affect absorption of the effluent. Stones and boulders, ice, and bedrock or a cemented pan interfere with installation. Subsidence interferes with installation and maintenance. Excessive slope may cause lateral seepage and surfacing of the effluent in downslope areas.

Some soils are underlain by loose sand and gravel or fractured bedrock at a depth of less than 4 feet below the distribution lines. In these soils the absorption field may not adequately filter the effluent, particularly when the system is new. As a result, the ground water may become contaminated.

Sewage lagoons are shallow ponds constructed to hold sewage while aerobic bacteria decompose the solid and liquid wastes. Lagoons should have a nearly level floor surrounded by cut slopes or embankments of compacted soil. Nearly impervious soil material for the lagoon floor and sides is required to minimize seepage and contamination of ground water. Considered in the ratings are slope, permeability, depth to a water table, ponding, depth to bedrock or a cemented pan, flooding, large stones, and content of organic matter.

Soil permeability is a critical property affecting the suitability for sewage lagoons. Most porous soils eventually become sealed when they are used as sites for sewage lagoons. Until sealing occurs, however, the hazard of pollution is severe. Soils that have a permeability rate of more than 2 inches per hour are too porous for the proper functioning of sewage lagoons. In these soils, seepage of the effluent can result in contamination of the ground water. Ground-water contamination is also a hazard if fractured bedrock is within a depth of 40 inches, if the water table is high enough to raise the level of sewage in the lagoon, or if floodwater overtops the lagoon.

A high content of organic matter is detrimental to proper functioning of the lagoon because it inhibits aerobic activity. Slope, bedrock, and cemented pans can cause construction problems, and large stones can hinder compaction of the lagoon floor. If the lagoon is to be uniformly deep throughout, the slope must be gentle enough and the soil material must be thick enough over bedrock or a cemented pan to make land smoothing practical.

A trench sanitary landfill is an area where solid waste is placed in successive layers in an excavated trench. The waste is spread, compacted, and covered daily with a thin layer of soil excavated at the site. When the trench is full, a final cover of soil material at least 2 feet thick is placed over the landfill. The ratings in the table are based on the soil properties that affect the risk of pollution, the ease of excavation, trafficability, and revegetation. These properties include permeability, depth to bedrock or a cemented pan, depth to a water table, ponding, slope, flooding, texture, stones and boulders, highly organic layers, soil reaction, and content of salts and sodium. Unless otherwise stated, the ratings apply only to that part of the soil within a depth of about 6 feet. For deeper trenches, onsite investigation may be needed.

Hard, nonrippable bedrock, creviced bedrock, or highly permeable strata in or directly below the proposed trench bottom can affect the ease of excavation and the hazard of ground-water pollution. Slope affects construction of the trenches and the movement of surface water around the landfill. It also affects the construction and performance of roads in areas of the landfill.

Soil texture and consistence affect the ease with which the trench is dug and the ease with which the soil can be used as daily or final cover. They determine the workability of the soil when dry and when wet. Soils that are plastic and sticky when wet are difficult to excavate, grade, or compact and are difficult to place as a uniformly thick cover over a layer of refuse.

The soil material used as the final cover for a trench landfill should be suitable for plants. It should not have excess sodium or salts and should not be too acid. The surface layer generally has the best workability, the highest content of organic matter, and the best potential for plants. Material from the surface layer should be stockpiled for use as the final cover.

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In an area sanitary landfill, solid waste is placed in successive layers on the surface of the soil. The waste is spread, compacted, and covered daily with a thin layer of soil from a source away from the site. A final cover of soil material at least 2 feet thick is placed over the completed landfill. The ratings in the table are based on the soil properties that affect trafficability and the risk of pollution. These properties include flooding, permeability, depth to a water table, ponding, slope, and depth to bedrock or a cemented pan.

Flooding is a serious problem because it can result in pollution in areas downstream from the landfill. If permeability is too rapid or if fractured bedrock, a fractured cemented pan, or the water table is close to the surface, the leachate can contaminate the water supply. Slope is a consideration because of the extra grading required to maintain roads in the steeper areas of the landfill. Also, leachate may flow along the surface of the soils in the steeper areas and cause difficult seepage problems.

Daily cover for landfill is the soil material that is used to cover compacted solid waste in an area sanitary landfill. The soil material is obtained offsite, transported to the landfill, and spread over the waste. The ratings in the table also apply to the final cover for a landfill. They are based on the soil properties that affect workability, the ease of digging, and the ease of moving and spreading the material over the refuse daily during wet and dry periods. These properties include soil texture, depth to a water table, ponding, rock fragments, slope, depth to bedrock or a cemented pan, reaction, and content of salts, sodium, or lime.

Loamy or silty soils that are free of large stones and excess gravel are the best cover for a landfill. Clayey soils may be sticky and difficult to spread; sandy soils are subject to wind erosion.

Slope affects the ease of excavation and of moving the cover material. Also, it can influence runoff, erosion, and reclamation of the borrow area.

After soil material has been removed, the soil material remaining in the borrow area must be thick enough over bedrock, a cemented pan, or the water table to permit revegetation. The soil material used as the final cover for a landfill should be suitable for plants. It should not have excess sodium, salts, or lime and should not be too acid.

SANITARY FACILITIES--continued
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Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
3: Channel-----	---	---	---	---	---
Straw-----	Severe: flooding	Severe: flooding seepage	Severe: flooding seepage	Severe: flooding seepage	Fair: too clayey
4: Arnegard-----	Moderate: percs slowly	Moderate: seepage slope	Moderate: too clayey	Slight	Fair: too clayey
4B: Arnegard-----	Moderate: percs slowly	Moderate: seepage slope	Moderate: too clayey	Slight	Fair: too clayey
5: Tonka-----	Severe: percs slowly ponding	Severe: ponding	Severe: too clayey ponding	Severe: ponding	Poor: hard to pack too clayey ponding
7: Straw-----	Severe: flooding	Severe: flooding seepage	Severe: flooding seepage	Severe: flooding seepage	Fair: too clayey
Rhoades-----	Severe: flooding percs slowly	Severe: flooding	Severe: excess sodium flooding too clayey	Severe: flooding	Poor: excess sodium hard to pack too clayey
8C: Cabba-----	Severe: depth to rock	Severe: slope depth to rock	Severe: depth to rock	Severe: depth to rock	Poor: depth to rock
Chama-----	Severe: seepage thin layer	Severe: seepage slope	Severe: seepage	Moderate: seepage	Poor: area reclaim thin layer
9D: Amor-----	Severe: seepage thin layer	Severe: seepage slope	Severe: seepage	Moderate: seepage slope	Poor: area reclaim thin layer
Cabba-----	Severe: depth to rock	Severe: slope depth to rock	Severe: depth to rock	Severe: depth to rock	Poor: depth to rock
9E: Cabba-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Poor: slope depth to rock
10D: Cabba-----	Severe: seepage thin layer	Severe: seepage slope	Severe: seepage	Severe: seepage	Poor: area reclaim thin layer
11F: Cabba-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Poor: slope depth to rock

SANITARY FACILITIES--continued
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Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
Badland-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Poor: hard to pack slope depth to rock
12: Banks-----	Severe: flooding poor filter	Severe: flooding seepage	Severe: flooding seepage too sandy	Severe: flooding seepage	Poor: seepage too sandy
13D: Wabek-----	Severe: poor filter	Severe: seepage slope	Severe: seepage too sandy	Severe: seepage	Poor: seepage small stones too sandy
15: Belfield-----	Severe: percs slowly	Moderate: slope	Severe: excess sodium too clayey wetness	Moderate: wetness	Poor: excess sodium hard to pack too clayey
Farland-----	Severe: percs slowly	Moderate: seepage slope	Severe: too clayey too sandy	Slight	Poor: too clayey
16B: Belfield-----	Severe: percs slowly	Moderate: slope	Severe: excess sodium too clayey wetness	Moderate: wetness	Poor: excess sodium hard to pack too clayey
Savage-----	Severe: percs slowly	Moderate: slope	Severe: too clayey	Slight	Poor: hard to pack too clayey
18: Belfield-----	Severe: percs slowly	Moderate: slope	Severe: excess sodium too clayey wetness	Moderate: wetness	Poor: excess sodium hard to pack too clayey
Grail-----	Severe: percs slowly	Moderate: slope	Severe: too clayey	Slight	Poor: hard to pack too clayey
19B: Belfield-----	Severe: percs slowly	Moderate: slope	Severe: excess sodium too clayey wetness	Moderate: wetness	Poor: excess sodium hard to pack too clayey
Morton-----	Severe: seepage thin layer	Severe: seepage	Severe: seepage	Moderate: seepage	Poor: area reclaim thin layer
21B: Cherry-----	Severe: percs slowly	Moderate: slope	Severe: too clayey	Slight	Poor: hard to pack too clayey
21C: Cherry-----	Severe: percs slowly	Severe: slope	Severe: too clayey	Slight	Poor: hard to pack too clayey

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22: Colvin-----	Severe: flooding percs slowly wetness	Severe: flooding wetness	Severe: flooding wetness	Severe: flooding wetness	Poor: wetness
24: Dimmick-----	Severe: percs slowly ponding	Severe: ponding	Severe: too clayey ponding	Severe: ponding	Poor: hard to pack too clayey ponding
25F: Baahish-----	Severe: slope poor filter	Severe: seepage slope	Severe: seepage slope	Severe: seepage slope	Poor: seepage slope small stones
Rock Outcrop-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Poor: slope depth to rock
27: Farland-----	Severe: percs slowly	Moderate: seepage slope	Severe: too clayey too sandy	Slight	Poor: too clayey
27B: Farland-----	Severe: percs slowly	Moderate: seepage slope	Severe: too clayey too sandy	Slight	Poor: too clayey
29B: Farland-----	Severe: percs slowly	Moderate: seepage slope	Severe: too clayey too sandy	Slight	Poor: too clayey
Rhoades-----	Severe: percs slowly	Moderate: seepage slope	Severe: seepage too clayey	Slight	Poor: excess sodium hard to pack too clayey
30E: Cohagen-----	Severe: slope depth to rock	Severe: seepage slope depth to rock	Severe: seepage slope depth to rock	Severe: slope depth to rock	Poor: slope depth to rock
Vebar-----	Severe: seepage slope thin layer	Severe: seepage slope	Severe: seepage slope	Severe: slope	Poor: area reclaim slope thin layer
31F: Cohagen-----	Severe: slope depth to rock	Severe: seepage slope depth to rock	Severe: seepage slope depth to rock	Severe: slope depth to rock	Poor: slope depth to rock
Vebar-----	Severe: seepage slope thin layer	Severe: seepage slope	Severe: seepage slope	Severe: slope	Poor: area reclaim slope thin layer
Rock Outcrop-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Poor: slope depth to rock

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Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
32B: Flaxton-----	Severe: percs slowly	Severe: seepage	Moderate: too clayey	Severe: seepage	Fair: too clayey
Williams-----	Severe: percs slowly	Moderate: seepage slope	Moderate: too clayey	Slight	Fair: too clayey
32C: Flaxton-----	Severe: percs slowly	Severe: seepage slope	Moderate: too clayey	Severe: seepage	Fair: too clayey
Williams-----	Severe: percs slowly	Severe: slope	Moderate: too clayey	Slight	Fair: too clayey
33: Grail-----	Severe: percs slowly	Moderate: slope	Severe: too clayey	Slight	Poor: hard to pack too clayey
33B: Grail-----	Severe: percs slowly	Moderate: slope	Severe: too clayey	Slight	Poor: hard to pack too clayey
35: Lawther-----	Severe: percs slowly	Moderate: slope	Severe: too clayey	Slight	Poor: hard to pack too clayey
35B: Lawther-----	Severe: percs slowly	Moderate: slope	Severe: too clayey	Slight	Poor: hard to pack too clayey
37: Trembles Variant-----	Severe: flooding ponding	Severe: flooding seepage ponding	Severe: flooding seepage ponding	Severe: flooding seepage ponding	Poor: ponding
39: Havrelon-----	Severe: flooding	Severe: flooding	Severe: flooding	Severe: flooding	Fair: too clayey
40: Havrelon-----	Severe: flooding	Severe: flooding	Severe: flooding	Severe: flooding	Fair: too clayey
Channel-----	---	---	---	---	---
41: Heil-----	Severe: percs slowly ponding	Severe: ponding	Severe: excess sodium too clayey ponding	Severe: ponding	Poor: hard to pack too clayey ponding
42B: Lefor-----	Severe: seepage thin layer	Severe: seepage	Severe: seepage	Moderate: seepage	Poor: area reclaim thin layer
42C: Lefor-----	Severe: seepage thin layer	Severe: seepage slope	Severe: seepage	Moderate: seepage	Poor: area reclaim thin layer

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43B: Havrelon, 0.23-----	Severe: flooding	Severe: flooding	Severe: flooding	Severe: flooding	Fair: too clayey
44B: Lihen-----	Severe: poor filter	Severe: seepage	Severe: seepage too sandy	Severe: seepage	Poor: too sandy
44D: Lihen-----	Severe: poor filter	Severe: seepage slope	Severe: seepage too sandy	Severe: seepage	Poor: too sandy
45B: Ruso-----	Severe: poor filter	Severe: seepage	Severe: seepage too sandy	Severe: seepage	Poor: seepage small stones too sandy
45C: Ruso-----	Severe: poor filter	Severe: seepage slope	Severe: seepage too sandy	Severe: seepage	Poor: seepage small stones too sandy
46: Bowdle-----	Severe: poor filter	Severe: seepage	Severe: seepage too sandy	Severe: seepage	Poor: seepage small stones too sandy
46B: Bowdle-----	Severe: poor filter	Severe: seepage	Severe: seepage too sandy	Severe: seepage	Poor: seepage small stones too sandy
47: Moreau-----	Severe: seepage percs slowly thin layer	Severe: seepage	Severe: seepage too clayey	Moderate: seepage	Poor: area reclaim hard to pack too clayey
47B: Moreau-----	Severe: seepage percs slowly thin layer	Severe: seepage	Severe: seepage too clayey	Moderate: seepage	Poor: area reclaim hard to pack too clayey
47C: Moreau-----	Severe: seepage percs slowly thin layer	Severe: seepage slope	Severe: seepage too clayey	Moderate: seepage	Poor: area reclaim hard to pack too clayey
48B: Temvik-----	Severe: percs slowly	Moderate: seepage slope	Moderate: too clayey	Slight	Fair: too clayey
49: Morton-----	Severe: seepage thin layer	Severe: seepage	Severe: seepage	Moderate: seepage	Poor: area reclaim thin layer

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Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
49B: Morton-----	Severe: seepage thin layer	Severe: seepage	Severe: seepage	Moderate: seepage	Poor: area reclaim thin layer
49C: Morton-----	Severe: seepage thin layer	Severe: seepage slope	Severe: seepage	Moderate: seepage	Poor: area reclaim thin layer
51C: Amor-----	Severe: seepage thin layer	Severe: seepage	Severe: seepage	Moderate: seepage	Poor: area reclaim thin layer
52B: Morton-----	Severe: seepage thin layer	Severe: seepage	Severe: seepage	Moderate: seepage	Poor: area reclaim thin layer
Rhoades-----	Severe: percs slowly	Moderate: seepage slope	Severe: seepage too clayey	Slight	Poor: excess sodium hard to pack too clayey
52C: Morton-----	Severe: seepage thin layer	Severe: seepage slope	Severe: seepage	Moderate: seepage	Poor: area reclaim thin layer
Rhoades-----	Severe: percs slowly	Severe: slope	Severe: seepage too clayey	Slight	Poor: excess sodium hard to pack too clayey
53B: Watrous-----	Severe: depth to rock	Severe: depth to rock	Severe: depth to rock	Severe: depth to rock	Poor: depth to rock
54B: Parshall-----	Slight	Severe: seepage	Severe: seepage	Severe: seepage	Fair: too sandy
55: Pits-----	Severe: slope poor filter	Severe: seepage slope	Severe: seepage slope too sandy	Severe: seepage slope	Poor: seepage small stones too sandy
58: Regent-----	Severe: seepage percs slowly thin layer	Severe: seepage	Severe: seepage too clayey	Moderate: seepage	Poor: area reclaim hard to pack too clayey
58B: Regent-----	Severe: seepage percs slowly thin layer	Severe: seepage	Severe: seepage too clayey	Moderate: seepage	Poor: area reclaim hard to pack too clayey
58C: Regent-----	Severe: seepage percs slowly thin layer	Severe: seepage slope	Severe: seepage too clayey	Moderate: seepage	Poor: area reclaim hard to pack too clayey

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Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
61B: Regent-----	Severe: seepage percs slowly thin layer	Severe: seepage	Severe: seepage too clayey	Moderate: seepage	Poor: area reclaim hard to pack too clayey
Rhoades-----	Severe: percs slowly	Moderate: seepage slope	Severe: seepage too clayey	Slight	Poor: excess sodium hard to pack too clayey
61C: Regent-----	Severe: seepage percs slowly thin layer	Severe: seepage slope	Severe: seepage too clayey	Moderate: seepage	Poor: area reclaim hard to pack too clayey
Rhoades-----	Severe: percs slowly	Severe: slope	Severe: seepage too clayey	Slight	Poor: excess sodium hard to pack too clayey
62B: Rhoades-----	Severe: percs slowly	Moderate: seepage slope	Severe: seepage too clayey	Slight	Poor: excess sodium hard to pack too clayey
62D: Rhoades-----	Severe: percs slowly	Severe: slope	Severe: seepage too clayey	Moderate: slope	Poor: excess sodium hard to pack too clayey
Cabba-----	Severe: depth to rock	Severe: slope depth to rock	Severe: depth to rock	Severe: depth to rock	Poor: depth to rock
64: Badland-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Poor: hard to pack slope depth to rock
67: Savage-----	Severe: percs slowly	Moderate: slope	Severe: too clayey	Slight	Poor: hard to pack too clayey
67B: Savage-----	Severe: percs slowly	Moderate: slope	Severe: too clayey	Slight	Poor: hard to pack too clayey
68: Vanda-----	Severe: percs slowly	Moderate: slope	Slight	Slight	Poor: hard to pack
69B: Savage-----	Severe: percs slowly	Moderate: slope	Severe: too clayey	Slight	Poor: hard to pack too clayey
Rhoades-----	Severe: percs slowly	Moderate: seepage slope	Severe: seepage too clayey	Slight	Poor: excess sodium hard to pack too clayey

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Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
70C: Searing-----	Severe: poor filter	Severe: seepage	Severe: large stones seepage	Severe: seepage	Poor: seepage small stones
71B: Sen-----	Severe: depth to rock	Severe: depth to rock	Severe: depth to rock	Severe: depth to rock	Poor: depth to rock
71C: Sen-----	Severe: depth to rock	Severe: slope depth to rock	Severe: depth to rock	Severe: depth to rock	Poor: depth to rock
73C: Cherry-----	Severe: percs slowly	Moderate: slope	Severe: too clayey	Slight	Poor: hard to pack too clayey
Vanda-----	Severe: percs slowly	Moderate: slope	Slight	Slight	Poor: hard to pack
75: Straw-----	Severe: flooding	Severe: flooding seepage	Severe: flooding seepage	Severe: flooding seepage	Fair: too clayey
79: Velva-----	Severe: flooding	Severe: flooding seepage	Severe: flooding seepage	Severe: flooding seepage	Good
81B: Vebar-----	Severe: seepage thin layer	Severe: seepage	Severe: seepage	Moderate: seepage	Poor: area reclaim thin layer
Parshall-----	Slight	Severe: seepage	Severe: seepage	Severe: seepage	Fair: too sandy
81C: Vebar-----	Severe: seepage thin layer	Severe: seepage slope	Severe: seepage	Moderate: seepage	Poor: area reclaim thin layer
Parshall-----	Slight	Severe: seepage slope	Severe: seepage	Severe: seepage	Fair: too sandy
81D: Vebar-----	Severe: seepage thin layer	Severe: seepage slope	Severe: seepage	Moderate: seepage slope	Poor: area reclaim thin layer
82D: Vebar-----	Severe: seepage thin layer	Severe: seepage slope	Severe: seepage	Severe: seepage	Poor: area reclaim thin layer
83E: Baahish-----	Severe: slope poor filter	Severe: seepage slope	Severe: seepage slope	Severe: seepage slope	Poor: seepage slope small stones

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Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
84: Hidatsa-----	Severe: poor filter	Severe: seepage	Severe: seepage	Severe: seepage	Poor: small stones
84B: Hidatsa-----	Severe: poor filter	Severe: seepage	Severe: seepage	Severe: seepage	Poor: small stones
86F: Brandenburg-----	Severe: large stones slope poor filter	Severe: large stones seepage slope	Severe: large stones seepage slope	Severe: seepage slope	Poor: seepage slope small stones
Cabba-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Poor: slope depth to rock
87F: Lakoa-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Poor: slope
88: Williams-----	Severe: percs slowly	Moderate: seepage slope	Moderate: too clayey	Slight	Fair: too clayey
88B: Williams-----	Severe: percs slowly	Moderate: seepage slope	Moderate: too clayey	Slight	Fair: too clayey
88C: Williams-----	Severe: percs slowly	Severe: slope	Moderate: too clayey	Slight	Fair: too clayey
90C: Williams-----	Severe: percs slowly	Moderate: large stones seepage slope	Moderate: too clayey	Slight	Fair: too clayey
91B: Williams-----	Severe: percs slowly	Moderate: seepage slope	Moderate: too clayey	Slight	Fair: too clayey
Noonan-----	Severe: percs slowly wetness	Moderate: slope	Severe: excess sodium wetness	Moderate: wetness	Poor: excess sodium
91C: Williams-----	Severe: percs slowly	Severe: slope	Moderate: too clayey	Slight	Fair: too clayey
Noonan-----	Severe: percs slowly	Severe: slope	Severe: excess sodium	Slight	Poor: excess sodium
93C: Williams-----	Severe: percs slowly	Severe: slope	Moderate: too clayey	Slight	Fair: too clayey
Zahl-----	Severe: percs slowly	Severe: slope	Moderate: too clayey	Slight	Fair: too clayey

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93D: Williams-----	Severe: percs slowly	Severe: slope	Moderate: slope too clayey	Moderate: slope	Fair: slope too clayey
Zahl-----	Severe: percs slowly	Severe: slope	Moderate: slope too clayey	Moderate: slope	Fair: slope too clayey
93E: Zahl-----	Severe: percs slowly slope	Severe: slope	Severe: slope	Severe: slope	Poor: slope
Williams-----	Severe: percs slowly slope	Severe: slope	Severe: slope	Severe: slope	Poor: slope
94B: Moreau Variant-----	Severe: depth to rock	Severe: depth to rock	Severe: too clayey depth to rock	Severe: depth to rock	Poor: hard to pack too clayey depth to rock
94E: Wayden-----	Severe: seepage slope thin layer	Severe: seepage slope	Severe: seepage slope too clayey	Severe: seepage slope	Poor: area reclaim hard to pack too clayey
101B: Amor-----	Severe: seepage thin layer	Severe: seepage	Severe: seepage	Moderate: seepage	Poor: area reclaim thin layer
101C: Amor-----	Severe: seepage thin layer	Severe: seepage slope	Severe: seepage	Moderate: seepage	Poor: area reclaim thin layer
102: Shambo-----	Moderate: percs slowly	Severe: seepage	Severe: seepage	Slight	Fair: too clayey
102B: Shambo-----	Moderate: percs slowly	Severe: seepage	Severe: seepage	Slight	Fair: too clayey
105: Harriet-----	Severe: flooding percs slowly wetness	Severe: flooding	Severe: flooding too clayey wetness	Severe: flooding wetness	Poor: hard to pack too clayey wetness
106B: Daglum-----	Severe: percs slowly	Moderate: seepage slope	Severe: seepage too clayey	Slight	Poor: excess sodium too clayey
107: Aguents-----	Severe: percs slowly ponding	Severe: ponding	Severe: too clayey ponding	Severe: ponding	Poor: hard to pack too clayey ponding

SANITARY FACILITIES--continued
 Dunn County, North Dakota

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. See text for definitions of terms used in this table. Absence of an entry indicates that no rating is applicable.)

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
109B: Ekalaka-----	Severe: percs slowly	Severe: seepage	Severe: excess sodium seepage too sandy	Severe: seepage	Poor: excess sodium too sandy
207F: Arikara-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Poor: slope
209E: Cherry-----	Severe: percs slowly	Severe: slope	Severe: too clayey	Moderate: slope	Poor: hard to pack too clayey
Cabba-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Poor: slope depth to rock
211F: Badland-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Poor: hard to pack slope depth to rock
Cabba-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Poor: slope depth to rock
Arikara-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Poor: slope
W: Water-----	---	---	---	---	---

