

Appendix D

Project Area Soils Data

| Map Unit | Soil Complex Name | Acreage in Project Area | Soil Unit Name | Soil Type | Parent Material | Percent of Soil Complex (%) | Slope (%) | pH Range | Max. Salinity (mmhos/cm) | Drainage Class | Clay Content (%) | Hydrologic Group | Sodium Adsorption Ratio (SAR) | Runoff Class | Erosion Potential (Kw) |
|----------|---|-------------------------|----------------|--|--|-----------------------------|-----------|----------|--------------------------|----------------|------------------|------------------|-------------------------------|--------------|------------------------|
| 21 | Bigpack loam | 8 | Bigpack | Loam, clay loam | Alluvium derived from sandstone, limestone, shale, and quartzite | 85 | 1-8 | 7.9-9.0 | 2.0 | Well drained | 18-35 | B | 0 | Medium | 0.28-0.37 |
| 29 | Bullpen parachannery loam | 34 | Bullpen | Parachannery loam, parachannery clay loam, weathered bedrock | Slope alluvium over residuum derived from shale and sandstone | 85 | 2-25 | 7.9-11.0 | 4.0 | Well drained | 18-30 | B | 0-25 | Medium | 0.15-0.37 |
| 31 | Bullpen-Mikim complex | 62 | Bullpen | Parachannery loam, parachannery clay loam, weathered bedrock | Slope alluvium over residuum derived from shale and sandstone | 55 | 2-25 | 7.9-11.0 | 4.0 | Well drained | 18-30 | B | 0-25 | Medium | 0.15-0.37 |
| | | | Mikim | Silt loam, loam, clay loam | Alluvium derived from sandstone, limestone and shale | 30 | 2-4 | 7.9-9.0 | 2.0 | Well drained | 20-35 | B | 0-10 | Low | 0.32-0.55 |
| 36 | Cadrina extremely stony loam – Rock outcrop complex | <1 | Cadrina | Extr. stony loam, unweathered bedrock | Slope alluvium and colluviums over residuum derived from shale and sandstone | 65 | 25-50 | 7.9-9.0 | 4.0 | Well drained | 18-27 | D | 0-5 | Very high | 0.05 |
| | | | Rock outcrop | Bedrock | -- | 20 | 25-50 | -- | -- | -- | D | -- | Very high | -- | |
| 39 | Cadrina-Rock outcrop complex | 8 | Cadrina | Extr. flaggy loam, extr. channery silt loam, unweathered bedrock | Slope alluvium and colluvium over residuum derived from shale and sandstone | 70 | 25-50 | 7.9-9.0 | 4.0 | Well drained | 18-27 | D | 0-5 | Very high | 0.05 |

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|----------|---------------------------------|-------------------------|----------------|---|---|-----------------------------|-----------|----------|--------------------------|------------------------------|------------------|------------------|-------------------------------|--------------|------------------------|
| | | | Rock outcrop | Bedrock | -- | 15 | 25-50 | -- | -- | -- | -- | D | -- | Very high | 0.05 |
| 42 | Casmos-Cadrina-Badland complex | 5 | Casmos | V. channery loam, channery loam, unweathered bedrock | Slope alluvium over residuum derived from sandstone, siltstone, and shale | 35 | 4-25 | 7.9-9.0 | 4.0 | Well drained | 18-27 | D | 5-10 | Very high | 0.15-0.24 |
| | | | Cadrina | Extr. channery loam, unweathered bedrock | Slope alluvium over residuum derived from shale and sandstone | 30 | 4-25 | 7.9-9.0 | 4.0 | Well drained | 18-27 | D | 0-5 | Very high | 0.05 |
| | | | Badland | Clay, silty clay, weathered bedrock | -- | 20 | 4-25 | 7.9-11.0 | 20.0 | Somewhat excessively drained | 40-60 | D | 1-10 | Very high | 0.10 |
| 78 | Gilston sandy loam | 44 | Gilston | Sandy loam, gravelly sandy loam, gypsiferous loam | Alluvium derived from sandstone | 85 | 2-8 | 7.9-11.0 | 16.0 | Well drained | 5-18 | B | 0-55 | Low | 0.15-0.43 |
| 81 | Gompers very channery silt loam | 43 | Gompers | V. channery silt loam, v. channery loam, extr. channery loam, unweathered bedrock | Slope alluvium over residuum derived from shale | 85 | 4-25 | 7.9-9.0 | 2.0 | Well drained | 8-25 | D | 0-10 | Very High | 0.05-0.15 |
| 119 | Jagon-Rock outcrop complex | 82 | Jagon | V. gravelly loam, v. gravelly clay loam, v. channery loam, v. channery clay loam unweathered bedrock, bedrock | Eolian deposits and slope alluvium derived from sandstone | 75 | 3-8 | 7.4-8.4 | 2.0 | Well drained | 18-35 | D | 0 | High | 0.05-0.15 |
| | | | Rock outcrop | Bedrock | -- | 10 | 3-8 | -- | -- | -- | D | -- | Very high | -- | |
| 126 | Lanver-Walknolls association | 53 | Lanver | V. channery sandy loam, gravelly sandy loam, v. channery sandy loam | Eolian deposits over residuum derived from sandstone and shale | 50 | 2-8 | 7.9-11.0 | 8.0 | Well drained | 8-18 | C | 0-30 | Medium | 0.10-0.15 |

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|----------|------------------------------|-------------------------|----------------|--|--|-----------------------------|-----------|----------|--------------------------|----------------|------------------|------------------|-------------------------------|--------------|------------------------|
| | | | Walknolls | V. channery sandy loam | Slope alluvium derived from sandstone | 35 | 2-25 | 7.9-9.0 | 2.0 | Well drained | 8-18 | D | 0-10 | Medium | 0.10-0.15 |
| 138 | Mikim silt loam | 2 | Mikim | Silt loam, clay loam, loam | Alluvium derived from sandstone, limestone, and shale | 85 | 2-4 | 7.9-9.0 | 2.0 | Well drained | 20-35 | B | 0-10 | Low | 0.32-0.55 |
| 151 | Moonset-Whetrock association | 13 | Moonset | Channery loam, extr. channery loam, unweathered bedrock | Slope alluvium and colluvium derived from sandstone and shale | 45 | 8-50 | 7.9-8.4 | 2.0 | Well drained | 18-27 | D | 0 | Very high | 0.05-0.15 |
| | | | Whetrock | V. channery loam, extr. channery loam, weathered bedrock | Slope alluvium and colluviums over residuum derived from sandstone and shale | 45 | 8-50 | 7.9-9.0 | 2.0 | Well drained | 18-27 | C | 0-5 | High | 0.05 |
| 154 | Motto-Rock outcrop complex | 98 | Motto | V. flaggy loam, clay loam, extr. channery clay loam, unweathered bedrock | Slope alluvium over residuum derived from shale and sandstone | 75 | 2-25 | 7.9-11.0 | 8.0 | Well drained | 16-35 | D | 10-60 | Very high | 0.05-0.28 |
| | | | Rock outcrop | Bedrock | -- | 10 | 2-25 | -- | -- | -- | D | -- | Very high | -- | |
| 173 | Pariette gravelly sandy loam | 3 | Pariette | Gravelly sandy loam, cobbly loam, gravelly loam, weathered bedrock | Slope alluvium over residuum derived from shale interbedded with sandstone and siltstone | 85 | 2-8 | 7.9-11.0 | 2.0 | Well drained | 10-27 | C | 1-15 | Medium | 0.15-0.24 |

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|----------|---|-------------------------|----------------|--|---|-----------------------------|-----------|----------|--------------------------|----------------|------------------|------------------|-------------------------------|--------------|------------------------|
| 201 | Seeprid-Utso complex | 59 | Seeprid | Loam, clay loam, v. channery clay, v. channery loam, extr. channery loam, extr. channery sandy loam, unweathered bedrock | Eolian deposits over residuum derived from sandstone and shale | 45 | 4-25 | 6.6-8.4 | 2.0 | Well drained | 5-50 | B | 0 | Very high | 0.05-0.20 |
| | | | Utso | Loam, channery loam, v. channery loam, extr. channery loam, unweathered bedrock | Eolian deposits and slope alluvium over residuum derived from shale and sandstone | 40 | 4-25 | 6.6-8.4 | 2.0 | Well drained | 18-27 | B | 0 | Medium | 0.05-0.20 |
| 228 | Tabyago-Cedarknoll association | 5 | Tabyago | Loam, v. channery loam, v. channery sandy loam, unweathered bedrock | Eolian deposits over residuum derived from sandstone and shale | 50 | 2-4 | 7.9-9.0 | 2.0 | Well drained | 8-25 | C | 0-10 | Low | 0.10-0.28 |
| | | | Cedarknoll | Channery loam, v. channery loam, unweathered bedrock | Eolian deposits over residuum derived from siltstone and sandstone | 45 | 2-8 | 7.9-9.0 | 2.0 | Well drained | 18-27 | D | 0-13 | High | 0.15 |
| 232 | Tosca gravelly sandy loam | 1 | Tosca | Slightly decomposed plant material, gravelly sandy loam, v. cobbly sandy loam, v. gravelly sandy loam, extr. stony sandy loam, unweathered bedrock | Slope alluvium derived from sandstone and shale | 90 | 25-40 | 5.1-9.0 | 2.0 | Well drained | 8-18 | B | 0-5 | Medium | 0.05-0.15 |
| 256 | Walknolls extremely channery sandy loam | 39 | Walknolls | Extr. channery sandy loam, v. channery sandy loam, unweathered bedrock | Slope alluvium derived from sandstone | 85 | 4-25 | 7.9-9.0 | 2.0 | Well drained | 8-18 | D | 0-10 | Medium | 0.05-0.15 |

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|----------|---|-------------------------|----------------|--|---|-----------------------------|-----------|----------|--------------------------|------------------------------|------------------|------------------|-------------------------------|--------------|------------------------|
| 257 | Walknolls extremely channery sandy loam-Gilston association | 28 | Walknolls | Extr. channery sandy loam, v. channery sandy loam, unweathered bedrock | Slope alluvium and colluvium derived from sandstone | 50 | 4-50 | 7.9-9.0 | 2.0 | Well drained | 8-18 | D | 0-10 | High | 0.05-0.15 |
| | | | Gilston | Sandy loam, gravelly sandy loam, gypsiferous loam | Alluvium derived from sandstone | 35 | 2-8 | 7.9-11.0 | 16.0 | Well drained | 5-18 | B | 0-55 | Low | 0.15-0.43 |
| 259 | Walknolls-Badland-Rock outcrop complex | 29 | Walknolls | Extr. channery sandy loam, v. channery sandy loam | Slope alluvium and colluvium derived from sandstone | 60 | 25-50 | 7.9-9.0 | 2.0 | Well drained | 8-18 | D | 0-10 | High | 0.05-0.15 |
| | | | Badland | -- | -- | 15 | 25-50 | 7.9-11.0 | 20.0 | Somewhat excessively drained | 40-60 | D | 5-30 | Very high | 0.10 |
| | | | Rock outcrop | -- | -- | 10 | 25-50 | -- | -- | -- | -- | D | -- | Very high | -- |
| 263 | Walknolls-Mikim association | 14 | Walknolls | Extr. channery sandy loam, v. channery sandy loam, unweathered bedrock | Slope alluvium and colluvium derived from sandstone | 55 | 25-50 | 7.9-9.0 | 2.0 | Well drained | 8-18 | D | 0-10 | High | 0.05-0.15 |
| | | | Mikim | Silt loam, clay loam, loam | Alluvium derived from sandstone, limestone, and shale | 30 | 2-4 | 7.9-9.0 | 2.0 | Well drained | 20-25 | B | 0-10 | Low | 0.32-0.55 |
| 264 | Walknolls-Rock outcrop complex | 9 | Walknolls | V. channery sandy loam, unweathered bedrock | Slope alluvium and colluvium derived from sandstone | 75 | 2-50 | 7.9-9.0 | 2.0 | Well drained | 8-18 | D | 0-10 | High | 0.10-0.15 |
| | | | Rock outcrop | -- | -- | 15 | 25-50 | -- | -- | -- | -- | D | -- | Very high | -- |
| 266 | Walknolls-Uendal association | 26 | Walknolls | V. channery sandy loam, unweathered bedrock | Slope alluvium derived from sandstone | 55 | 2-25 | 7.9-9.0 | 2.0 | Well drained | 8-18 | D | 0-10 | Medium | 0.10-0.15 |

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|----------|------------------------------|-------------------------|----------------|---|---|-----------------------------|-----------|----------|--------------------------|----------------|------------------|------------------|-------------------------------|--------------|------------------------|
| | | | Uendal | Gravelly sandy loam, sandy loam, unweathered bedrock | Slope alluvium derived from sandstone | 35 | 4-8 | 7.9-9.0 | 2.0 | Well drained | 8-15 | C | 0-5 | High | 0.15-0.32 |
| 270 | Whitesage-Cedarknoll complex | 38 | Whitsage | Silt loam, loam | Slope alluvium derived from sandstone, limestone, shale, and quartz | 50 | 4-8 | 7.9-9.0 | 2.0 | Well drained | 18-27 | B | 0-10 | Medium | 0.37-0.43 |
| | | | Cedarknoll | Channery fine sandy loam, v. channery loam, extr. channery loam, extr. flaggy loam, unweathered bedrock | Eolian deposits over residuum derived from siltstone and sandstone | 30 | 3-8 | 7.9-9.0 | 2.0 | Well drained | 10-27 | D | 0-5 | Very high | 0.24-0.37 |