**Appendix 1.** Soil descriptions, parent materials, and productivity data for the Waynesville watershed.

| Soil Map Unit | Series Name | Description | Parent Material | Site Index | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Northern Red Oak | Red Spruce | Eastern White pine | Chestnut Oak | Yellow Poplar | Scarlet Oak | Black Cherry |
| BuD | Burton | Moderately deep, well drained, moderately rapidly permeable | Formed in residuum weathered from felsic to mafic high-grade metamorphic or igneous rock | 40 | -- | -- | -- | -- | -- | -- |
| BuD | Craggey | Shallow, somewhat excessively drained, moderately rapidly permeable | Formed in residuum weathered from felsic to mafic high-grade metamorphic or igneous rock | 40 | -- | -- | -- | -- | -- | -- |
| CtE | Cullasaja | Very deep, well drained, moderately rapidly permeable | Formed in residuum weathered from felsic to mafic high-grade metamorphic or igneous rock | -- | -- | -- | -- | 109 | -- | -- |
| CxA | Cullowhee | Somewhat poorly drained, moderately rapidly permeable on flood plains | Formed in recent alluvium, loamy in the upper part and is moderately deep to sandy | -- | -- | 100 | -- | 103 | -- | -- |
| CxA | Nikwasi | Poorly to very poorly drained, moderately rapidly permeable on flood plains | Formed in recent alluvium of loamy material that is moderately deep to sandy | -- | -- | 86 | -- | 88 | -- | -- |
| DeA | Dellwood | Moderately well drained, rapidly permeable | Formed in dominantly coarse textured alluvium | -- | -- | 91 | -- | 100 | -- | -- |

| Soil Map Unit | Series Name | Description | Parent Material | Site Index | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Northern Red Oak | Red Spruce | Eastern White pine | Chestnut Oak | Yellow Poplar | Scarlet Oak | Black Cherry |
| EdC | Edneyville | Very deep, well drained, moderately rapidly permeable | Formed in residuum weathered from felsic to mafic high-grade metamorphic or igneous rock | 80 | -- | 90 | -- | 98 | 73 | -- |
| EdC | Chestnut | Moderately deep, well drained, moderately rapidly permeable | Formed in residuum weathered from felsic to mafic high-grade metamorphic or igneous rock | 76 | -- | 78 | 69 | 97 | 68 | -- |
| EdD | Edneyville | Very deep, well drained, moderately rapidly permeable | Formed in residuum weathered from felsic to mafic high-grade metamorphic or igneous rock | 80 | -- | 90 | -- | 98 | -- | -- |
| EdD | Chestnut | Moderately deep, well drained, moderately rapidly permeable | Formed in residuum weathered from felsic to mafic high-grade metamorphic or igneous rock | 76 | -- | 78 | 69 | 97 | 68 | -- |
| EdE EdF | Edneyville | Very deep, well drained, moderately rapidly permeable | Formed in residuum weathered from felsic to mafic high-grade metamorphic or igneous rock | 80 | -- | 90 | -- | 98 | -- | -- |
| EdE EdF | Chestnut | Moderately deep, well drained, moderately rapidly prmble | Formed in residuum weathered from felsic to mafic high-grade metamorphic or igneous rock | 76 | -- | 78 | 69 | 97 | 68 | -- |
| EvD | Evard | Very deep, well drained, moderately permeable | Formed in residuum weathered from felsic to mafic high-grade metamorphic or igneous rock | -- | -- | 93 | 77 | 95 | -- | -- |

| Soil Map Unit | Series Name | Description | Parent Material | Site Index | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Northern Red Oak | Red Spruce | Eastern White pine | Chestnut Oak | Yellow Poplar | Scarlet Oak | Black Cherry |
| EvD | Cowee | Moderately deep, well drained, moderately permeable | Formed in residuum weathered from felsic to mafic high-grade metamorphic or igneous rock | -- | -- | 78 | 55 | 80 | 54 | -- |
| EvE EwF | Evard | Very deep, well drained, moderately permeable | Formed in residuum weathered from felsic to mafic high-grade metamorphic or igneous rock | -- | -- | 93 | 77 | 95 | -- | -- |
| EvE EwF | Cowee | Moderately deep, well drained, moderately permeable | Formed in residuum weathered from felsic to mafic high-grade metamorphic or igneous rock | -- | -- | 78 | 55 | 80 | 54 | -- |
| PwC | Plott | Very deep, well drained, moderately rapidly permeable | Formed in residuum weathered from felsic to mafic high-grade metamorphic or igneous rock | 85 | -- | -- | -- | 113 | -- | 87 |
| PwD | Plott | Very deep, well drained, moderately rapidly permeable | Formed in residuum weathered from felsic to mafic high-grade metamorphic or igneous rock | 85 | -- | -- | -- | 113 | -- | 87 |
| PwE PwF | Plott | Very deep, well drained, moderately rapidly permeable | Very deep, well drained, moderately rapidly permeable | 85 | -- | -- | -- | 113 | -- | 87 |
| SdC | Saunook | Very deep, well drained, moderately rapidly permeable | Formed in colluvium derived from weathered felsic to mafic high-grade metamorphic or igneous rock | -- | -- | 104 | -- | 107 | -- | -- |

| Soil Map Unit | Series Name | Description | Parent Material | Site Index | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Northern Red Oak | Red Spruce | Eastern White pine | Chestnut Oak | Yellow Poplar | Scarlet Oak | Black Cherry |
| SdD | Saunook | Very deep, well drained, moderately rapidly permeable | Formed in colluvium derived from weathered felsic to mafic high-grade metamorphic or igneous rock | -- | -- | 104 | -- | 107 | -- | -- |
| TcD | Balsam | Very deep, well drained, moderately rapidly permeable | Formed in colluvium derived from weathered felsic to mafic high-grade metamorphic or igneous rock | -- | 64 | -- | -- | -- | -- | -- |
| TcE | Tanasee | Very deep, well drained, moderately rapidly permeable | Formed in colluvium derived from weathered felsic to mafic high-grade metamorphic or igneous rock | -- | 64 | -- | -- | -- | -- | -- |
| TcE | Balsam | Very deep, well drained, moderately rapidly permeable | Formed in colluvium derived from weathered felsic to mafic high-grade metamorphic or igneous rock | -- | 64 | -- | -- | -- | -- | -- |
| TrE TrF | Trimont | Very deep, well drained, moderately permeable | Very deep, well drained, moderately rapidly permeable | 94 | -- | -- | -- | 102 | -- | -- |
| TuD | Tuckasegee | Very deep, well drained, moderately rapidly permeable | Formed in colluvium derived from weathered felsic to mafic high-grade metamorphic or igneous rock | -- | -- | 98 | -- | 109 | -- | -- |
| TuD | Cullasaja | Very deep, well drained, moderately rapidly permeable | Formed in residuum weathered from felsic to mafic high-grade metamorphic or igneous rock | -- | -- | -- | -- | 109 | -- | -- |

| Soil Map Unit | Series Name | Description | Parent Material | Site Index | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Northern Red Oak | Red Spruce | Eastern White pine | Chestnut Oak | Yellow Poplar | Scarlet Oak | Black Cherry |
| TvE | Tuckasegee | Very deep, well drained, moderately rapidly permeable | Formed in colluvium derived from weathered felsic to mafic high-grade metamorphic or igneous rock | -- | -- | 98 | -- | 109 | -- | -- |
| TvE | Cullasaja | Very deep, well drained, moderately rapidly permeable | Formed in residuum weathered from felsic to mafic high-grade metamorphic or igneous rock | -- | -- | -- | -- | 109 | -- | -- |
| WaD | Wayah | Very deep, well drained, moderately rapidly permeable | Formed in residuum weathered from felsic to mafic high-grade metamorphic or igneous rock | 72 | 57 | -- | -- | -- | -- | 72 |
| WaE WaF | Wayah | Very deep, well drained, moderately rapidly permeable | Formed in residuum weathered from felsic to mafic high-grade metamorphic or igneous rock | 72 | 57 | -- | -- | -- | -- | 72 |
| WeC | Wayah | Very deep, well drained, moderately rapidly permeable | Formed in residuum weathered from felsic to mafic high-grade metamorphic or igneous rock | 43 | -- | -- | -- | -- | -- | -- |
| WeD | Wayah | Very deep, well drained, moderately rapidly permeable | Formed in residuum weathered from felsic to mafic high-grade metamorphic or igneous rock | 43 | -- | -- | -- | -- | -- | -- |
| WeE | Wayah | Very deep, well drained, moderately rapidly permeable | Formed in residuum weathered from felsic to mafic high-grade metamorphic or igneous rock | 43 | -- | -- | -- | -- | -- | -- |