

## CLASSIFICATION OF NATIVE VEGETATION OF OREGON – 2019

James S. Kagan, Rachel L. Brunner, and John A. Christy: Oregon Biodiversity Information Center

This classification is an update of the 2004 classification of native vegetation of Oregon by Kagan, Christy, Murray and Titus. As before, this classification lists the native plant associations known to occur in Oregon, and includes both successional and climax vegetation types that were part of the presettlement landscape of Oregon and can still be found in the state. It serves as an index to the diversity, distribution and relative rarity of the state's native plant associations, and as a guide to their literature. Published and unpublished reports supported by quantitative data were the primary sources for the classification. In order to accurately identify or describe a plant association, we recommend reading the written descriptions or keys presented in the references cited for each association.

This update incorporates recent classification efforts and scholarship, removes a handful of associations that are no longer present in Oregon, and reconciles the 2004 classification with the United States National Vegetation Classification (USNVC) version 2.02 (2018). The USNVC is a hierarchical plant community classification designed to standardize vegetation classification in the United States (Jennings et al. 2009). It employs a nested system of six physiognomic ranks and two floristically-defined ranks. Only associations, the finest level of that classification are described here. This list includes some newly described or provisional associations not included in the USNVC, which do not have standard USNVC codes.

Plant associations are listed by scientific name, followed by common name. Listings include the global and state rank of each association, a unique code linking to the National Vegetation Classification (USNVC), the Omernik based ecoregions in Oregon in which it occurs, and its distribution in other western states and provinces. Also included is a list of primary references in which the association was described. Sampling methods and concepts of species and associations differ greatly among researchers. Publications from other states or provinces in the Pacific Northwest are included for associations known to occur in, but not described from Oregon.

**Scientific Name** is the association name using scientific species names. Convention requires that species in different canopy layers are separated by a slash ("/"), while species in the same canopy layer are separated by a hyphen ("-"). Named taxa are not always dominant in the association. If the species in the name are not the dominant species, they signify indicator species or climax dominants. Parentheses are used to indicate species which can be important, but are not always present. Taxonomic nomenclature follows the PLANTS database (USDA NRCS 2019) for associations recognized in the USNVC and Oregon Flora (Jaster et al. 2017, version 1.7) otherwise, except where superseded by a differentially recognized taxon in the core habitat or current reference for an association (e.g. for hybridizing *Abies* species also present in adjacent states).

**Common Name** is the association name using common or vernacular names. Names of the associations are constructed following the same conventions used for scientific names.

**ELCODE** is the element code, a unique ten-byte alphanumeric code used to identify each plant association. An "element" is a plant, animal or plant association -- elements of natural diversity -- that is tracked according to standard protocols used by NatureServe, as well as all natural heritage programs and conservation data centers in North America.

**G/S Rank** is a code identifying the conservation status of the plant association. It is composed of a global rank ("G") followed by a state rank ("S"). 1 = critically imperiled because of extreme rarity, with 5 or fewer occurrences or very few remaining acres. 2 = Imperiled because of rarity, with 6-20 occurrences or few remaining acres. 3 = either very rare and local throughout its range or found locally in a restricted range; uncommon, with 21-100 occurrences. 4 = apparently secure, though it may be quite rare in parts of its range, especially at the periphery; many occurrences. 5 = demonstrably secure, though it may be quite rare in parts of its range, especially at the periphery; ineradicable under present conditions. These standardized NatureServe ranks are used by all natural heritage programs and conservation data centers in Canada and the US.

**Ecoregions** identifies the Oregon ecoregion in which the plant association is known to occur. Oregon's eight primary ecoregions, identified by a two-letter code; BM = Blue Mountains, BR = Northern Basin and Range, CB = Columbia Basin, CR = Coast Range, EC = East slope of Cascade Range, KM = Klamath Mountains, WV = Willamette Valley, WC = West slope and crest of Cascade Range.

**W S & P** lists other western states and Canadian provinces where the association is known or likely to occur, represented by the standard postal state and province abbreviation. The states and provinces included are Alberta, Arizona, British Columbia, California, Colorado, Idaho, Montana, New Mexico, Nevada, Washington and Wyoming (AL, AZ, BC, CA, CO, ID, MT, NM, NV, WA, WY), with a + indicating a wider distribution.

**Wetland Type** lists the two letter code that corresponds to the type of wetland. AW = alkaline wetland, AB= aquatic bed, FE = fen, FW = forested wetland and riparian forest, FM = freshwater tidal marshes, HR = herbaceous riparian, SM = salt marshes and brackish marsh, SF = serpentine fen, SS = shrub swamp and riparian, SD = snowbed depression, SP = spring, VP = vernal pool, WM = wet meadow, WP = wet prairie. This field is blank for upland communities.

**References** cites published and unpublished sources, almost all of which contain some type of summarized plot data that describe the vegetation quantitatively. Some references may not contain quantitative data, but are based on plot data that are not summarized in the report. Full citations are listed at the end of the document.

## References

- T. Jaster, Meyers, S. C., and Sundberg, S., eds. 2017. Oregon Vascular Plant Checklist. Version 1.7. Corvallis, OR. [www.oregonflora.org/checklist.php](http://www.oregonflora.org/checklist.php). Accessed 2019-06-14.
- M. D. Jennings, Faber-Langendoen, D., Loucks, O., Peet, R, and Roberts, D. 2009. Standards for associations and alliances of the US National Vegetation Classification. *Ecological Monographs*. 79(2), 173-199. 10.1890/07-1804.1.
- United States Department of Agriculture, Natural Resources Conservation Service. 2019. The PLANTS Database National Plant Data Team. Greensboro, NC. [www.plants.usda.gov](http://www.plants.usda.gov). Accessed 2019-06-14.
- United States National Vegetation Classification. 2018. United States National Vegetation Classification Database, V2.02. Federal Geographic Data Committee, Vegetation Subcommittee, Washington DC. [www.usnvc.org](http://www.usnvc.org). Accessed 2018-03-08.

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| Scientific Name  | Common Name   | ELCODE     | G/S Rank | Ecoregions | W S & P | Wetland Type | References  |
|--|---|------------|----------|------------|---------|--------------|---|
| Abies amabilis - (Pseudotsuga menziesii) / Achlys triphylla - Tiarella trifoliata var. unifoliata forest | Pacific silver fir - (Douglas-fir) / sweet after death - coolwort foamflower          | CEGL005512 | G4S4     | WC         | WA      |              | Dyrness et al. 1974a: 48; Brockway et al. 1983: 61; Hemstrom et al. 1982: 41; Hemstrom et al. 1987: 124; Henderson et al. 1992: 100; Klinka et al. 1996: 153  |
| Abies amabilis - (Pseudotsuga menziesii) / Vaccinium membranaceum / Achlys triphylla forest              | Pacific silver fir - (Douglas-fir) / thin-leaved blueberry / vanillaleaf              | CEGL005514 | G4S4     | WC         | CA?, WA |              | Atzet et al. 1996   |
| Abies amabilis - (Pseudotsuga menziesii, Abies procera) / Vaccinium membranaceum / Xerophyllum tenax     | Pacific silver fir / thin-leaved blueberry / beargrass                                | CEGL000239 | G4S4     | WC         | BC, WA  |              | Dyrness et al. 1974a: 38; Brockway et al. 1983: 66; Hemstrom et al. 1982: 61; Hemstrom et al. 1987: 108; Henderson et al. 1992: 130; Marsh et al. 1987: 62  |
| Abies amabilis - (Pseudotsuga menziesii, Tsuga heterophylla) / Rhododendron macrophyllum                 | Pacific silver fir (western hemlock, Douglas-fir) / western rhododendron              | CEGL005548 | G4S4     | WC         | WA      |              | Hemstrom et al. 1982: 47, 57; Hemstrom et al. 1987: 146   |
| Abies amabilis - (Tsuga heterophylla) / Vaccinium membranaceum / Orthilia secunda forest                 | Pacific silver fir - (western hemlock) / thin-leaved blueberry / queencup beadlily    | CEGL005516 | G4S4     | WC         | CA?, WA |              | Brockway et al. 1983: 65; Hemstrom et al. 1982: 59; Hemstrom et al. 1987: 112   |
| Abies amabilis - Abies concolor / Mahonia nervosa var. nervosa   | Pacific silver fir - white fir / dwarf Oregongrape                                    | CEGL000216 | G4S3     | KM, WC     |         |              | Atzet and McCrimmon 1990: 230   |
| Abies amabilis - Abies concolor / Maianthemum stellatum  | Pacific silver fir - white fir / starry false Solomon's seal                          | CEGL000215 | G3S3     | WC         |         |              | Hemstrom et al. 1987: 98  |
| Abies amabilis - Pseudotsuga menziesii / Achlys triphylla forest   | Pacific silver fir - Douglas-fir / vanillaleaf  | CEGL005511 | G4S4     | WC         | WA      |              | Dyrness et al. 1974a: 21, 29, 44; Franklin et al. 1979; Henderson et al. 1992: 84; Atzet et al. 1996; Klinka et al. 1996: 153; Hemstrom et al. 1982: 43; Hemstrom et al. 1987: 158; Atzet and McCrimmon 1990: 76  |
| Abies amabilis - Pseudotsuga menziesii / Rhododendron macrophyllum / Cornus unalaschkensis forest        | Pacific silver fir - Douglas-fir / western rhododendron / twinflower                  | CEGL005513 | G4S4     | WC         | WA      |              | Meidinger et al. 2005; Henderson et al. 1989; Henderson et al. 1986; Hemstrom et al. 1987; Crawford et al. 2009; Bigley and Hull 1992   |
| Abies amabilis - Tsuga heterophylla / Rubus pedatus - Tiarella trifoliata var. unifoliata forest         | Pacific silver fir - western Hemlock / strawberry-leaf raspberry - oneleaf foamflower | CEGL005515 | G3G4S3   | WC         | WA      |              | Meidinger et al. 2005; Klinka et al. 1996; Henderson et al. 1992; Henderson et al. 1989; Hemstrom et al. 1987; Hemstrom et al. 1982; Green and Klinka 1994; Franklin et al. 1979; Dyrness et al. 1974a; Crawford et al. 2009; Brockway et al. 1983; Brockway and Topik 1984; Bigley and Hull 1992 |
| Abies amabilis - Tsuga heterophylla / Vaccinium membranaceum / Tiarella trifoliata                       | Pacific silver fir / thin-leaved blueberry / coolwort foamflower                      | CEGL000237 | G4S4     | WC         |         |              | Schuller 1978: 46; Atzet and McCrimmon 1990: 109  |
| Abies amabilis - Tsuga mertensiana - (Abies x shastensis) / Vaccinium membranaceum                       | Pacific silver fir - mountain hemlock - Shasta red fir / thin-leaved blueberry        | CEGL005521 | G4S3     | WC         | WA      |              | Atzet and McCrimmon 1990: 47  |
| Abies amabilis - Tsuga mertensiana / Menziesia ferruginea forest   | Pacific silver fir - mountain hemlock / rusty menziesia                               | CEGL005628 | G4S3     | EC, WC     | WA      |              | Meidinger et al. 2005; Lillybridge et al. 1995; Kovalchik 2001; Franklin et al. 1988; Diaz et al. 1997; del Moral et al. 1976; Crawford et al. 2009; Brockway et al. 1983   |
| Abies amabilis - Tsuga mertensiana / Oplopanax horridus swamp forest                                     | Pacific silver fir - mountain hemlock / devil's-club swamp forest                     | CEGL000507 | G3G4S2   | WC         | WA      | FW           | Meidinger et al. 2005; Henderson et al. 1992; Henderson et al. 1985; Henderson and Peter 1984; Henderson and Peter 1983; Green and Klinka 1994; Crawford et al. 2009  |
| Abies amabilis - Tsuga mertensiana / Rhododendron albiflorum / Xerophyllum tenax                         | Pacific silver fir - mountain hemlock / Cascades azalea / beargrass                   | CEGL000225 | G5S4     | WC         | WA      |              | Hemstrom et al. 1982:37; Hemstrom et al. 1987:116; Diaz et al. 1997   |
| Abies amabilis - Tsuga mertensiana / Vaccinium membranaceum / Rubus lasiococcus forest                   | Pacific silver fir - mountain hemlock / thinleaf huckleberry / rough-fruit berry      | CEGL005520 | G4G5S4   | WC         | WA      |              | Diaz et al. 1997: 81; Johnson et al. 1987; Brockway et al. 1983; Brockway and Topik 1984; Williams 1978: 74; Atzet and McCrimmon 1990: 71   |
| Abies amabilis / Gaultheria shallon - Rhododendron macrophyllum  | Pacific silver fir / salal - western rhododendron                                     | CEGL000222 | G4S4     | WC         |         |              | Hemstrom et al. 1982: 49; Hemstrom et al. 1987: 154   |
| Abies amabilis / Mahonia nervosa var. nervosa  | Pacific silver fir / dwarf Oregongrape  | CEGL000217 | G4S4     | WC         | WA      |              | Brockway et al. 1983: 56; Hemstrom et al. 1982: 53; Hemstrom et al. 1987: 132; Henderson et al. 1992: 86  |

| Scientific Name   | Common Name   | ELCODE     | G/S Rank | Ecoregions | W S & P | Wetland Type | References   |
|---|---|------------|----------|------------|---------|--------------|--|
| <i>Abies amabilis</i> / <i>Mahonia nervosa</i> var. <i>nervosa</i> - <i>Rhododendron macrophyllum</i>                                       | Pacific silver fir / dwarf Oregongrape - western rhododendron                   | CEGL000218 | G4S4     | WC         | WA?     |              | Hemstrom et al. 1982: 55; Hemstrom et al. 1987: 150  |
| <i>Abies amabilis</i> / <i>Menziesia ferruginea</i>   | Pacific silver fir / fool's huckleberry   | CEGL000224 | G4S4     | WC         | WA      |              | Brockway et al. 1983: 64; Hemstrom et al. 1982: 39; Hemstrom et al. 1987: 134  |
| <i>Abies amabilis</i> / <i>Oplopanax horridus</i>   | Pacific silver fir / devil's club   | CEGL000004 | G5S3S4   | CR, WC     | BC, WA  | SS           | Franklin et al. 1979; Hemstrom et al. 1982: 31; Brockway et al. 1983: 62; Hemstrom et al. 1987: 128; Henderson et al. 1989: 198; Henderson et al. 1992: 92; Brockway et al. 1983: 62; Klinka et al. 1996: 153  |
| <i>Abies amabilis</i> / <i>Vaccinium membranaceum</i> / <i>Tiarella trifoliata</i> var. <i>unifoliata</i> - Valeriana sitchensis forest     | Pacific silver fir / thinleaf huckleberry / oneleaf foamflower - Sitka valerian | CEGL005510 | G4S4     | WC         | WA      |              | Meidinger et al. 2005; Lillybridge et al. 1995; Klinka et al. 1996; Henderson et al. 1992; Henderson et al. 1989; Hemstrom et al. 1987; Hemstrom et al. 1982; Green and Klinka 1994; Franklin et al. 1979; Dyrness et al. 1974b; Brockway et al. 1983; Brockway and Topik 1984; Bigley and Hull 1992 |
| <i>Abies amabilis</i> / <i>Vaccinium ovalifolium</i> Riparian Forest [Provisional]  | Pacific silver fir / early blueberry  | OR1003     | G3S2     | WC         |         | FW           | Murray 2000: 40; McCain 2004: 176  |
| <i>Abies amabilis</i> / <i>Vaccinium scoparium</i>  | Pacific silver fir / grouseberry  | CEGL000238 | G4S4     | WC         |         |              | Williams 1978: 76; Schuller 1978: 46   |
| <i>Abies concolor</i> - <i>Abies x shastensis</i> / <i>Chimaphila umbellata</i>   | white fir - Shasta red fir / prince's-pine                                      | CEGL000030 | G4S3     | EC, WC     | CA      |              | Hopkins 1979b: 21; Atzet and McCrimmon 1990: 224; Atzet et al. 1996  |
| <i>Abies concolor</i> - <i>Abies x shastensis</i> / <i>Quercus sadleriana</i>   | white fir - Shasta red fir / Sadler oak   | CEGL000032 | G3S3     | KM         | CA?     |              | Atzet and Wheeler 1984: 55; Atzet et al. 1996  |
| <i>Abies concolor</i> - <i>Abies x shastensis</i> / sparse  | white fir - Shasta red fir / sparse understory forest                           | CEGL000031 | G3S3     | KM, WC     | CA?     |              | Atzet and Wheeler 1984: 54; Atzet et al. 1996  |
| <i>Abies concolor</i> - <i>Abies x shastensis</i> / <i>Symphoricarpos hesperius</i>   | white fir - Shasta red fir / creeping snowberry                                 | CEGL000033 | G3S3     | KM         | CA      |              | Atzet and Wheeler 1984: 27, 56   |
| <i>Abies concolor</i> - <i>Pinus contorta</i> var. <i>latifolia</i> / <i>Carex inops</i> ssp. <i>inops</i> - <i>Achnatherum occidentale</i> | white fir - lodgepole pine / long-stolon sedge - western needlegrass            | CEGL000256 | G3S3     | EC         |         |              | Hopkins 1979a: 30  |
| <i>Abies concolor</i> - <i>Pinus monticola</i> / <i>Ribes viscosissimum</i>   | white fir - western white pine / sticky currant                                 | CEGL000260 | G3S3     | EC         | CA      |              | Hopkins 1979a: 35  |
| <i>Abies concolor</i> - <i>Pinus ponderosa</i> / <i>Amelanchier alnifolia</i>   | white fir - ponderosa pine / serviceberry                                       | CEGL000014 | G2S2     | EC         | CA?     |              | Hopkins 1979a: 34  |
| <i>Abies concolor</i> - <i>Pinus ponderosa</i> / <i>Ceanothus velutinus</i>   | white fir - ponderosa pine / snowbrush  | CEGL000258 | G3QS3    | EC         | CA?     |              | Volland 1976: 68, 69, 70, 71; Hopkins 1979b: 17, 18  |
| <i>Abies concolor</i> - <i>Pinus ponderosa</i> / <i>Purshia tridentata</i>  | white fir - ponderosa pine / bitterbrush  | CEGL000259 | G3S3     | EC         | CA      |              | Smith 1994b: 108; Volland 1976: 70   |
| <i>Abies concolor</i> - <i>Pinus ponderosa</i> / <i>Symphoricarpos</i> spp.   | white fir - ponderosa pine / snowberry  | CEGL000018 | G3S3     | KM, EC     | CA?     |              | Hopkins 1979a: 31; Atzet and Wheeler 1984: 76  |
| <i>Abies concolor</i> - <i>Pseudotsuga menziesii</i> / <i>Holodiscus discolor</i>   | white fir - Douglas-fir / oceanspray  | CEGL000021 | G4S4     | KM         | CA?     |              | Atzet and Wheeler 1984: 75, 213  |
| <i>Abies concolor</i> - <i>Pseudotsuga menziesii</i> / <i>Mahonia aquifolium</i>  | white fir - Douglas-fir / Piper Oregongrape                                     | CEGL000020 | G4S4     | KM         | CA?     |              | Atzet and Wheeler 1984: 73, 214; Atzet and McCrimmon 1990: 289   |
| <i>Abies concolor</i> - <i>Pseudotsuga menziesii</i> / <i>Mahonia nervosa</i> var. <i>nervosa</i>   | white fir - Douglas-fir / dwarf Oregongrape                                     | CEGL000019 | G4S4     | KM         | CA?     |              | Atzet and Wheeler 1984: 65, 68, 71; Atzet and McCrimmon 1990: 284  |
| <i>Abies concolor</i> - <i>Pseudotsuga menziesii</i> / <i>Whipplea modesta</i>  | white fir - Douglas-fir / whipplevine   | CEGL000022 | G3S3     | KM         | CA?     |              | Mitchell and Moir 1976: 50   |
| <i>Abies concolor</i> - <i>Tsuga heterophylla</i> / <i>Acer circinatum</i>  | white fir - western hemlock / vine maple  | CEGL000029 | G3S3     | WC         | CA?     |              | Mitchell and Moir 1976: 50; Atzet and McCrimmon 1990: 236, 252   |

| Scientific Name  | Common Name  | ELCODE     | G/S Rank | Ecoregions | W S & P                  | Wetland Type | References   |
|--|--|------------|----------|------------|--------------------------|--------------|--|
| Abies concolor / Acer glabrum                                      | white fir / Rocky Mountain maple                           | CEGL000240 | G4S4     | KM, WC     | AZ, CA?, CO, NM, NV?, UT |              | Atzet and Wheeler 1984: 70; Atzet and McCrimmon 1990: 260  |
| Abies concolor / Amelanchier alnifolia - Corylus cornuta           | white fir / serviceberry - hazel                           | CEGL000011 | G3S3     | KM, WC     | CA?                      |              | Atzet and McCrimmon 1990: 276  |
| Abies concolor / Amelanchier alnifolia / Anemone deltoidea         | white fir / serviceberry / threelobed anemone              | CEGL000010 | G3S3     | KM, WC     | CA?                      |              | Atzet and McCrimmon 1990: 264  |
| Abies concolor / Arctostaphylos uva-ursi forest                    | white Fir / kinnikinnick                                   | CEGL000243 | G5S3     | KM, WC     | CO, NM                   |              | Stuever and Hayden 1997a; Johnston 1987; DeVelice et al. 1986  |
| Abies concolor / Ceanothus velutinus                               | white fir / snowbrush                                      | CEGL000246 | G3S3     | EC         | CA?                      |              | Dyrness 1960: 106; Dyrness and Youngberg 1966: 126; Volland 1976: 67, 68   |
| Abies concolor / Chimaphila umbellata                              | white fir / prince's-pine                                  | CEGL000015 | G3S3     | EC, KM, WC | CA?                      |              | McNeil 1975: 76; McNeil and Zobel 1980: 33; Atzet and McCrimmon 1990: 272  |
| Abies concolor / Chrysolepis chrysophylla var. chrysophylla        | white fir / golden chinquapin                              | CEGL000245 | G3S3     | EC         | CA?                      |              | Hopkins 1979b: 20; Atzet and Wheeler 1984: 68  |
| Abies concolor / Mahonia nervosa var. nervosa                      | white fir / dwarf Oregongrape                              | CEGL000012 | G4S3     | KM, WC     | CA?                      |              | Atzet and Wheeler 1984: 69, 71; Atzet and McCrimmon 1990: 268  |
| Abies concolor / Mahonia nervosa var. nervosa - Gaultheria shallon | white fir / dwarf Oregongrape - salal                      | CEGL000013 | G3S3     | KM, WC     | CA?                      |              | Atzet and McCrimmon 1990: 256  |
| Abies concolor / Maianthemum stellatum                             | white fir / starry false Solomon's seal                    | CEGL000025 | G3S3     | KM         | CA?                      |              | Atzet and Wheeler 1984: 71   |
| Abies concolor / Quercus sadleriana                                | white fir / Sadler oak                                     | CEGL000023 | G4S4     | KM         | CA?                      |              | Atzet and Wheeler 1984: 57, 58, 59, 60   |
| Abies concolor / Rubus nivalis                                     | white fir / snow dewberry                                  | CEGL000024 | G3S3     | KM, WC     |                          |              | Atzet and McCrimmon 1990: 240  |
| Abies concolor / Symphoricarpos albus                              | white fir / common snowberry                               | CEGL000026 | G3S3     | EC         | CA?                      |              | Hopkins 1979b: 19  |
| Abies concolor / Symphoricarpos mollis                             | white fir / creeping snowberry                             | CEGL000027 | G3S3     | EC, KM, WC | CA?                      |              | McNeil 1975: 72; Hopkins 1979a: 31; McNeil and Zobel 1980: 33; Atzet and Wheeler 1984: 77  |
| Abies concolor / Taxus brevifolia                                  | white fir / Pacific yew                                    | CEGL000028 | G3S2     | KM, WC     | CA?                      |              | Atzet and Wheeler 1984: 66   |
| Abies concolor / Toxicodendron diversilobum                        | white fir / poison oak                                     | CEGL000212 | G4S4     | KM         | BC?, WA                  |              | Atzet and McCrimmon 1990: 280  |
| Abies concolor / Vaccinium membranaceum                            | white fir / thin-leaved blueberry                          | CEGL000264 | G3S3     | KM, WC     | CA?                      |              | Atzet and McCrimmon 1990: 244, 248   |
| Abies grandis - Acer macrophyllum / Symphoricarpos albus           | grand fir - bigleaf maple / snowberry                      | CEGL000519 | G3QS2    | WV         | WA?                      |              | ORBIC unpubl. data   |
| Abies grandis - Picea engelmannii / Maianthemum stellatum          | grand fir - Engelmann spruce / starry false Solomon's seal | CEGL000278 | G3S3     | EC         | CA                       |              | Topik et al. 1988: 107   |
| Abies grandis - Taxus brevifolia                                   | grand fir - Pacific yew                                    | CEGL000283 | G2S2     | BM         | ID, MT, WA               |              | Johnson and Simon 1987: 286; Johnson and Clausnitzer 1992: 51, 53; Clausnitzer 1993: 8; Titus et al. 1998  |
| Abies grandis - Tsuga heterophylla / Clintonia uniflora            | grand fir - western hemlock / queencup beadlily            | CEGL000286 | G2S2     | EC         |                          |              | Topik et al. 1988: 111   |
| Abies grandis - Tsuga heterophylla / Polystichum munitum           | grand fir - western hemlock / sword fern                   | CEGL000287 | G2S2     | WC, WV     | WA                       |              | Parker 1982; Kagan 1987c   |
| Abies grandis / Acer circinatum                                    | grand fir / vine maple                                     | CEGL000266 | G4S3     | CR, EC, WC | WA                       |              | Topik et al. 1988: 91  |
| Abies grandis / Acer glabrum                                       | grand fir / Rocky Mountain maple                           | CEGL000267 | G3S3     | BM         | ID, WA                   | FW           | Steele et al. 1981: 54; Johnson and Simon 1987: 310; Johnson and Clausnitzer 1992: 55; Clausnitzer 1993: 27; Crowe and Clausnitzer 1997: 58; Titus et al. 1998; Crowe et al. 2004: 304; Wells 2006: 54 |
| Abies grandis / Achlys triphylla                                   | grand fir / vanillaleaf                                    | CEGL000268 | G3S3     | EC         | WA                       |              | Topik et al. 1988: 95  |
| Abies grandis / Arctostaphylos nevadensis woodland                 | grand fir / pinemat manzanita                              | CEGL000915 | G2G3S2   | EC         | WA                       |              | Williams and Smith 1990; Topik et al. 1988; Topik 1989; Lillybridge et al. 1995; John and Tart 1986  |
| Abies grandis / Asarum caudatum                                    | grand fir / wild ginger                                    | CEGL000269 | G4S3     | BM         | ID, MT                   |              | Cooper et al. 1991: 61; Johnson and Clausnitzer 1992: 47   |

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|--|--|------------|----------|----------------|-----------------------------|--------------|--|
| <i>Abies grandis</i> / <i>Athyrium filix-femina</i>  | grand fir / ladyfern                                   | CEGL000270 | G3S3     | BM             | MT, WA                      | FW           | Crowe and Clausnitzer 1997: 58; Crowe et al. 2004: 363, 423  |
| <i>Abies grandis</i> / <i>Bromus vulgaris</i>  | grand fir / Columbia brome                             | CEGL002601 | G3S3     | BM             |                             |              | Hall 1973: 37; Johnson and Clausnitzer 1992: 67  |
| <i>Abies grandis</i> / <i>Calamagrostis rubescens</i>  | grand fir / pinegrass                                  | CEGL000916 | G4?S3    | BM             | ID, MT, WA                  |              | Hall 1973: 32, 33; Steele et al. 1981: 50; Johnson and Simon 1987: 320; Topik 1989: 49; Johnson and Clausnitzer 1992: 71; Clausnitzer 1993: 159  |
| <i>Abies grandis</i> / <i>Carex geyeri</i>   | grand fir / elk sedge                                  | CEGL000917 | G3S3     | BM, EC         | WA                          |              | Williams 1978: 51; Topik et al. 1988: 71; Topik 1989: 53; Johnson and Clausnitzer 1992: 73; Clausnitzer 1993: 176  |
| <i>Abies grandis</i> / <i>Chrysolepis chrysophylla</i> var. <i>chrysophylla</i>                          | grand fir / golden chinquapin                          | CEGL000038 | G2S2     | EC             |                             |              | Topik et al. 1988: 99  |
| <i>Abies grandis</i> / <i>Clintonia uniflora</i>   | grand fir / queencup beadlily                          | CEGL000272 | G5S3     | BM             | ID, MT, WA                  |              | Steele et al. 1981: 58; Johnson and Simon 1987: 279; Cooper et al. 1991: 63; Johnson and Clausnitzer 1992: 57; Clausnitzer 1993: 46  |
| <i>Abies grandis</i> / <i>Coptis occidentalis</i>  | grand fir / goldthread                                 | CEGL000273 | G2S1     | BM             | ID                          |              | Steele et al. 1981: 58; Johnson and Simon 1987: 308  |
| <i>Abies grandis</i> / <i>Crataegus douglasii</i> / <i>Carex leptopoda</i> Riparian Forest [Provisional] | Grand fir / Douglas hawthorn / slender-foot sedge      | OR1004     | G1S1     | BM             |                             | FW           | Wells 2006: 51   |
| <i>Abies grandis</i> / <i>Gymnocarpium disjunctum</i> riparian forest [Provisional]                      | grand fir / oak fern                                   | OR0002     | G2S2     | BM             |                             | FW           | Johnson and Clausnitzer 1992: 45; Crowe and Clausnitzer 1997: 56; Crowe et al. 2004: 366   |
| <i>Abies grandis</i> / <i>Holodiscus discolor</i>  | grand fir / oceanspray                                 | CEGL000274 | G2G3S2   | CR, EC, WC, WV | WA                          |              | Topik et al. 1988: 75; Topik 1989: 61; McCain and Diaz 2002a; McCain and Diaz 2002b  |
| <i>Abies grandis</i> / <i>Linnaea borealis</i>   | grand fir / twinflower                                 | CEGL000275 | G3S3     | BM, EC         | ID, MT, WA                  |              | Hall 1973: 37; Cole 1977b: 67; Ganskopp 1979: 84; Steele et al. 1981: 54; Cole 1982: 9; Johnson and Simon 1987: 298; Topik et al. 1988: 87; Cooper et al. 1991: 68; Johnson and Clausnitzer 1992: 59; Clausnitzer 1993: 66 |
| <i>Abies grandis</i> / <i>Orthilia secunda</i> forest  | grand fir / sidebells wintergreen                      | CEGL000279 | G3S3     | EC, WC         | WA?                         |              | Wilson 1978; Topik et al. 1988   |
| <i>Abies grandis</i> / <i>Physocarpus malvaceus</i>  | grand fir / ninebark                                   | CEGL000277 | G3S3     | BM             | ID, MT, WA                  |              | Johnson and Simon 1987: 325; Cooper et al. 1991: 71  |
| <i>Abies grandis</i> / <i>Polemonium pulcherrimum</i>  | grand fir / skunk-leaved polemonium                    | CEGL000039 | G3S3     | EC             | WA?                         |              | Williams 1978: 58; Topik et al. 1988: 103  |
| <i>Abies grandis</i> / <i>Senecio triangularis</i>   | grand fir / arrowleaf groundsel riparian               | CEGL000280 | G3S3     | BM, EC         | ID, MT                      | FW           | Cooper et al. 1991: 60; Titus et al. 1998  |
| <i>Abies grandis</i> / <i>Spiraea betulifolia</i>  | grand fir / birchleaf spiraea                          | CEGL000281 | G2S2     | BM             | ID, MT, WA                  |              | Steele et al. 1981: 52; Johnson and Simon 1987: 315; Cooper et al. 1991: 72; Johnson and Clausnitzer 1992: 69; Clausnitzer 1993: 141   |
| <i>Abies grandis</i> / <i>Symphoricarpos albus</i>   | grand fir / common snowberry                           | CEGL000282 | G3S2     | BM, EC         | WA?                         | FW           | Topik et al. 1988: 79; Crowe and Clausnitzer 1997: 60; Titus et al. 1998; Crowe et al. 2004: 307   |
| <i>Abies grandis</i> / <i>Taxus brevifolia</i> Riparian Forest   | Grand fir / Pacific yew                                | CEGL000283 | G2S1     | BM             | ID, MT, WA                  | FW           | Wells 2006: 49; Crawford and Johnson 1985; Cooper et al. 1987; Clausnitzer 1993; Crowe and Clausnitzer 1997; Daubenmire and Daubenmire 1968; Johnson and Simon 1987; Titus et al. 1998                                     |
| <i>Abies grandis</i> / <i>Trautvetteria caroliniensis</i>  | grand fir / false bugbane                              | CEGL000285 | G3S3     | BM             | WA                          | FW           | Johnson and Clausnitzer 1992: 49; Crowe and Clausnitzer 1997: 68; Murray 2000: 27, 28; Crowe et al. 2004: 320, 369   |
| <i>Abies grandis</i> / <i>Trientalis latifolia</i>   | grand fir / starflower                                 | CEGL000040 | G3S3     | EC             | WA                          |              | Topik et al. 1988: 83  |
| <i>Abies grandis</i> / <i>Vaccinium membranaceum</i>   | grand fir / thin-leaved blueberry                      | CEGL000290 | G4S4     | BM             | WA                          |              | Hall 1973: 39; Cole 1977b: 82; Johnson and Simon 1987: 290; Johnson and Clausnitzer 1992: 61; Clausnitzer 1993: 87; Titus et al. 1998  |
| <i>Abies grandis</i> / <i>Vaccinium scoparium</i>  | grand fir / grouseberry                                | CEGL000292 | G4S4     | BM             |                             |              | Hall 1973: 39; Johnson and Clausnitzer 1992: 63, 65; Clausnitzer 1993: 125   |
| <i>Abies lasiocarpa</i> - <i>Picea engelmannii</i> / <i>Calamagrostis canadensis</i>                     | subalpine fir - Engelmann spruce / bluejoint reedgrass | CEGL000300 | G5S4     | BM, EC         | AB, CO, ID, MT, UT, WA?, WY | FW           | Steele et al. 1981: 61; Steele et al. 1983: 45; Cooper et al. 1991: 46; Crowe and Clausnitzer 1997: 38; Titus et al. 1998; Crowe et al. 2004: 421  |

| Scientific Name  | Common Name  | ELCODE     | G/S Rank | Ecoregions | W S & P                              | Wetland Type | References  |
|--|--|------------|----------|------------|--------------------------------------|--------------|---|
| <i>Abies lasiocarpa</i> - <i>Picea engelmannii</i> / <i>Carex geyeri</i>   | subalpine fir - Engelmann spruce / elk sedge                               | CEGL000304 | G5S4     | BM         | CO, ID, MT, UT, WA, WY               |              | Hall 1973: 42; Steele et al. 1981: 76; Steele et al. 1983: 59; Johnson and Clausnitzer 1992: 37   |
| <i>Abies lasiocarpa</i> - <i>Picea engelmannii</i> / <i>Clintonia uniflora</i>                                       | subalpine fir - Engelmann spruce / queencup beadlily                       | CEGL005912 | G5S4     | BM         | AB, ID, MT, WA                       |              | Steele et al. 1981: 65; Johnson and Simon 1987: 262; Cooper et al. 1991: 50; Johnson and Clausnitzer 1992: 27   |
| <i>Abies lasiocarpa</i> - <i>Picea engelmannii</i> / <i>Clintonia uniflora</i> - <i>Xerophyllum tenax</i> forest     | subalpine fir - Engelmann spruce / queencup beadlily - beargrass           | CEGL005892 | G4G5S3   | BM         | AB, ID, MT, WA                       |              | Williams et al. 1995; Reid et al. 2004; Pfister et al. 1977; Ogilvie 1962; Hop et al. 2007; Daubenmire and Daubenmire 1968; Cooper et al. 1987; Achuff et al. 2002  |
| <i>Abies lasiocarpa</i> - <i>Picea engelmannii</i> / <i>Juniperus communis</i> woodland                              | subalpine fir - Engelmann spruce / common juniper                          | CEGL000919 | G4G5S3   | BM         | AZ, CO, ID, MT, NM?, NV?, UT, WA, WY |              | Youngblood and Mauk 1985; Tirmenstein 1999a; Tendick et al. 2011a; Stuever and Hayden 1997a; Steele et al. 1983; Steele et al. 1981; Salas et al. 2010b; Salas et al. 2005; Roberts 1980; Reid and Hall 2010; Pfister et al. 1977; Moir and Ludwig 1979; Mauk and Henderson 1984; Larson and Moir 1987; Komarkova et al. 1988b; Kearsley et al. 2015; Jones and Ogle 2000; Johnston 1987; Johnston 1984; Hoffman and Alexander 1976; Henderson et al. 1989; Henderson et al. 1986; Crawford et al. 2009; Clagg 1975 |
| <i>Abies lasiocarpa</i> - <i>Picea engelmannii</i> / <i>Menziesia ferruginea</i> - <i>Vaccinium scoparium</i> forest | Subalpine fir - Engelmann spruce / rusty menziesia - grouse whortleberry   | CEGL005894 | G3S2     | BM         | AB, BC, ID, MT, WA?                  |              | Williams et al. 1995; Steele et al. 1981; Reid et al. 2004; Pfister et al. 1977; Ogilvie 1962; Lillybridge et al. 1995; Hop et al. 2007; Holland and Coen 1982; Cooper et al. 1987; Achuff et al. 2002; Achuff et al. 1984b; Achuff et al. 1984a; Wells 2006: 40  |
| <i>Abies lasiocarpa</i> - <i>Picea engelmannii</i> / <i>Menziesia ferruginea</i> / <i>Clintonia uniflora</i> forest  | Subalpine fir - Engelmann spruce / rusty menziesia / queen's cup           | CEGL005893 | G4G5S2   | BM         | AB, ID, MT, WA?                      |              | Williams et al. 1995; Steele et al. 1981; Reid et al. 2004; Pfister et al. 1977; Ogilvie 1962; Hop et al. 2007; Cooper et al. 1987; Achuff et al. 2002  |
| <i>Abies lasiocarpa</i> - <i>Picea engelmannii</i> / <i>Menziesia ferruginea</i> / <i>Xerophyllum tenax</i> forest   | subalpine fir - Engelmann spruce / rusty menziesia / beargrass             | CEGL005895 | G4G5S2   | BM         | AB, ID, MT, WA                       |              | Williams et al. 1995; Steele et al. 1983; Steele et al. 1981; Reid et al. 2004; Pfister et al. 1977; Ogilvie 1962; Johnson and Simon 1987; Hop et al. 2007; Holland and Coen 1982; Daubenmire and Daubenmire 1968; Cooper et al. 1987; Achuff et al. 2002   |
| <i>Abies lasiocarpa</i> - <i>Picea engelmannii</i> / <i>Mertensia ciliata</i> swamp forest                           | subalpine fir / mountain bluebells   | CEGL002663 | G5S3     | BM, EC     | CO, MT?, NM, UT, WY?                 | FW           | Johnson and Simon 1987: 275; Kovalchik 1993; Crowe and Clausnitzer 1997: 36; Titus et al. 1998  |
| <i>Abies lasiocarpa</i> - <i>Picea engelmannii</i> / <i>Streptopus amplexifolius</i> swamp forest                    | subalpine fir - Engelmann spruce / clasping twisted-stalk swamp forest     | CEGL000336 | G4S3     | BM         | AB, ID, MT, UT, WA, WY               | FW           | Youngblood et al. 1985b; Youngblood and Mauk 1985; Steele et al. 1983; Steele et al. 1981; Reid et al. 2004; Padgett et al. 1989; Padgett et al. 1988b; Mauk and Henderson 1984; Kovalchik 1993; Johnson and Simon 1987; Hop et al. 2007; Hansen et al. 1995; Hansen et al. 1991; Cooper et al. 1987; Cogan et al. 2005; Achuff et al. 2002   |
| <i>Abies lasiocarpa</i> - <i>Picea engelmannii</i> / <i>Vaccinium membranaceum</i> / <i>Xerophyllum tenax</i> forest | subalpine fir - Engelmann spruce / thinleaf huckleberry / common beargrass | CEGL005917 | G3S3     | BM         | AB, ID, MT, WA, WY                   |              | Williams et al. 1995; Williams et al. 1990b; Steele et al. 1983; Steele et al. 1981; Reid et al. 2004; Pfister et al. 1977; Hop et al. 2007; Cooper et al. 1987; Cogan et al. 2005  |
| <i>Abies lasiocarpa</i> - <i>Picea engelmannii</i> / <i>Vaccinium membranaceum</i> Rocky Mountain forest             | subalpine fir - Engelmann spruce / thinleaf huckleberry                    | CEGL000341 | G5S3     | BM         | ID, MT, UT, WA?, WY                  |              | Terwilliger et al. 1979a; Steele et al. 1983; Steele et al. 1981; Pfister et al. 1977; Mauk and Henderson 1984; Kovalchik 2001; Kerr and Henderson 1979; Johnston 1987; Crowe et al. 2004; Cooper 1975; Cogan et al. 2005   |
| <i>Abies lasiocarpa</i> - <i>Pseudotsuga menziesii</i> / <i>Acer circinatum</i> lava flow                            | subalpine fir - Douglas-fir / vine maple                                   | CEGL000921 | G4QS4    | EC, WC     |                                      |              | Roach 1952  |
| <i>Abies lasiocarpa</i> - <i>Tsuga mertensiana</i> / <i>Festuca viridula</i> woodland                                | subalpine fir - mountain hemlock / green fescue                            | CEGL005639 | GNR53    | EC, WC     | WA                                   |              | Diaz et al. 1997: 43  |
| <i>Abies lasiocarpa</i> - <i>Tsuga mertensiana</i> / <i>Rainiera stricta</i>   | subalpine fir - mountain hemlock / tongue-leaf luina                       | OR0003     | G4S3     | EC         | WA                                   |              | Marsh et al. 1987: 72   |

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|--|---|------------|----------|------------|----------------------------------|--------------|---|
| Abies lasiocarpa - Tsuga mertensiana / Vaccinium scoparium woodland                        | subalpine fir - mountain hemlock / grouse whortleberry        | CEGL005522 | G4S4     | EC, WC     | CA?, WA                          |              | Volland 1985; Volland 1976; Schuller 1978; Meidinger et al. 2005; Lillybridge et al. 1995; Johnson and Simon 1987; Johnson and Clausnitzer 1992; Hopkins 1979b; Hemstrom et al. 1987; Hemstrom et al. 1982; Franklin 1966; Diaz et al. 1997; Crawford et al. 2009; Atzet and McCrimmon 1990 |
| Abies lasiocarpa / Athyrium filix-femina riparian forest                                   | subalpine fir / ladyfern                                      | OR1006     | G2S2     | BM         | ID?, WA?                         | FW           | Crowe and Clausnitzer 1997: 34; Kovalchik 1993: 64; Titus et al. 1998; Crowe et al. 2004: 416; Hansen et al. 1995; Crowe et al. 2004: 416   |
| Abies lasiocarpa / Calamagrostis rubescens   | subalpine fir / pinegrass                                     | CEGL000301 | G4G5S3   | BM         | ID?, MT, UT, WA, WY              |              | Steele et al. 1981: 76; Steele et al. 1983: 57; Johnson and Simon 1987: 276   |
| Abies lasiocarpa / Carex aquatilis var. aquatilis Swamp Forest                             | subalpine fir / aquatic sedge                                 | CEGL002636 | G4S4     | BM         | CO                               | FW           | Crowe and Clausnitzer 1997: 38  |
| Abies lasiocarpa / Coptis occidentalis forest  | subalpine fir / Idaho goldthread                              | CEGL000308 | G4SU     | BM         | ID                               |              | Steele et al. 1981  |
| Abies lasiocarpa / Linnaea borealis  | subalpine fir / twinflower                                    | CEGL000315 | G5S4     | BM         | AB, ID, MT, UT?, WA, WY          |              | Steele et al. 1981: 68; Steele et al. 1983: 49; Johnson and Simon 1987: 268; Johnson and Clausnitzer 1992: 29   |
| Abies lasiocarpa / Menziesia ferruginea  | subalpine fir / fools huckleberry                             | CEGL000319 | G5S1     | BM         | AB, BC, ID, MT, WA, WY           |              | Steele et al. 1981: 65; Steele et al. 1983: 47; Johnson and Simon 1987: 238; Cooper et al. 1991: 52; Johnson and Clausnitzer 1992: 31   |
| Abies lasiocarpa / Paxistima myrsinites  | subalpine fir / Oregon boxwood                                | CEGL000324 | G4S3     | BM         | WA                               |              | Head 1959; McLean 1970; Johnston 1987; Hess and Wasser 1982; Daubenmire and Daubenmire 1968; Williams and Lillybridge 1983  |
| Abies lasiocarpa / Phyllodoce empetriformis  | subalpine fir / pink mountain-heather                         | CEGL000920 | G4QS4    | BM         | MT, WA                           |              | Head 1959: 34; Crawford et al. 2009; Clausnitzer and Zamora 1987; Chappell 2006b; Annable and Peterson 1988   |
| Abies lasiocarpa / Rhododendron albiflorum / Rubus lasiococcus forest                      | subalpine fir / Cascades azalea / dwarf bramble               | CEGL005635 | G3S1     | BM, WC     | WA                               |              | Johnson and Clausnitzer 1992: 42; Meidinger et al. 2005; Henderson et al. 1989; Crawford et al. 2009  |
| Abies lasiocarpa / Rhododendron columbianum Swamp Forest                                   | Subalpine fir / western Labrador tea                          | CEGL000314 | G4S2     | BM         | ID, MT, WA                       | FW           | Crowe et al. 2004: 408, 412, 414  |
| Abies lasiocarpa / Senecio triangularis - Micranthes odontoloma Swamp Forest [Provisional] | Subalpine fir / arrowleaf groundsel - stream saxifrage        | OR1007     | G4S3     | BM, EC     |                                  | FW           | Crowe et al. 2004: 419  |
| Abies lasiocarpa / Thalictrum occidentale  | subalpine fir / western meadowrue                             | CEGL000338 | G4S4     | BM         | ID, MT, WY                       |              | Cole 1977b: 71, 73, 76; Cole 1982: 10; Steele et al. 1983: 54   |
| Abies lasiocarpa / Trautvetteria caroliniensis   | subalpine fir / false bugbane                                 | CEGL000339 | G3S3     | BM         | CO, ID, WA                       | FW           | Johnson and Clausnitzer 1992: 25; Kovalchik 1993: 72; Titus et al. 1998   |
| Abies lasiocarpa / Vaccinium deliciosum woodland   | subalpine fir / Cascade bilberry                              | CEGL005636 | G4S2     | EC, WC     | WA                               |              | Wooten and Morrison 1995; Meidinger et al. 2005; Lillybridge et al. 1995; Crawford et al. 2009  |
| Abies lasiocarpa / Vaccinium membranaceum  | subalpine fir / thin-leaved blueberry                         | CEGL000342 | G4S4     | BM, EC     | WA                               |              | Hall 1973: 40; Cole 1977b: 79, 80; Cole 1982: 12; Johnson and Simon 1987: 253; Johnson and Clausnitzer 1992: 33   |
| Abies lasiocarpa / Vaccinium membranaceum / Valeriana sitchensis Riparian Forest           | Subalpine fir / thin-leaved huckleberry / Sitka valerian      | CEGL002612 | G3S1     | BM, WC     | WA                               | FW           | McCain 2004: 168; Wells 2006: 42; Fonda and Bliss 1969; Chappell 2006a; Chappell 2006b; Crawford et al. 2009  |
| Abies lasiocarpa / Vaccinium scoparium   | subalpine fir / grouseberry                                   | CEGL000344 | G5S4     | BM         | AZ?, CO, ID, MT, NM?, UT, WA, WY |              | Hall 1973: 41; Cole 1977b: 83; Steele et al. 1981: 74; Cole 1982: 13; Steele et al. 1983: 52; Johnson and Simon 1987: 244; Cooper et al. 1991: 57; Johnson and Clausnitzer 1992: 35   |
| Abies lowiana - Pinus lambertiana - Pinus ponderosa / Arctostaphylos patula forest         | white fir - sugar pine - ponderosa pine / greenleaf manzanita | CEGL000016 | G3S3     | EC, KM, WC | CA                               |              | Smith 1994b; Hopkins 1979a; Dealy 1971  |



| Scientific Name  | Common Name  | ELCODE     | G/S Rank | Ecoregions     | W S & P            | Wetland Type | References  |
|--|--|------------|----------|----------------|--------------------|--------------|---|
| <i>Abies lowiana</i> / <i>Toxicodendron diversilobum</i> forest  | white Fir / Pacific poison-oak   | CEGL000262 | G4S4     | KM             | CA?                |              | Atzet and McCrimmon 1990  |
| <i>Abies magnifica</i> / <i>Arctostaphylos nevadensis</i> forest   | California red Fir - pinemat manzanita                                   | CEGL008611 | G3S3     | KM, EC         | CA?                |              | Sawyer et al. 2009; Sawyer and Keeler-Wolf 1995; Keeler-Wolf et al. 2012; Keeler-Wolf et al. 2003a; Keeler-Wolf 2002    |
| <i>Abies magnifica</i> / sparse understory forest  | California red Fir / sparse understory forest                            | CEGL008609 | G4S3     | KM             | CA                 |              | Sawyer et al. 2009; Potter 1998; Odion et al. 2013; Keeler-Wolf et al. 2012; Keeler-Wolf et al. 2003a; Keeler-Wolf 2002 |
| <i>Abies procera</i> / <i>Oxalis oregana</i>   | noble fir / Oregon oxalis  | CEGL003444 | G1S1     | CR             |                    |              | McCain and Diaz 2002b   |
| <i>Abies x shastensis</i> - <i>Tsuga mertensiana</i> / <i>Arctostaphylos nevadensis</i>                                | Shasta red fir - mountain hemlock / pinemat manzanita                    | CEGL000035 | G4S3     | EC             | CA                 |              | Hopkins 1979b: 23   |
| <i>Abies x shastensis</i> / <i>Carex inops</i>   | Shasta red fir / long-stolon sedge                                       | CEGL000348 | G4S3     | EC             | CA?                |              | Hopkins 1979b: 22   |
| <i>Abies x shastensis</i> / <i>Polemonium pulcherrimum</i>   | Shasta red fir / skunk-leaved polemonium                                 | CEGL000036 | G3S3     | KM             | CA?                |              | Atzet and Wheeler 1984: 25  |
| <i>Abies x shastensis</i> / <i>Quercus sadleriana</i>  | Shasta red fir / Sadler oak  | CEGL000034 | G4S3     | KM             | CA                 |              | Atzet and Wheeler 1984: 26  |
| <i>Abies x shastensis</i> / <i>Vaccinium membranaceum</i> / <i>Chimaphila umbellata</i>                                | Shasta red fir / thin-leaved blueberry / prince's-pine                   | CEGL000037 | G4S4     | WC             | CA                 |              | Atzet and McCrimmon 1990: 93; Atzet et al. 1996   |
| <i>Acer circinatum</i> - <i>Corylus cornuta</i> / <i>Oxalis</i> Riparian Shrubland [Provisional]                       | Vine maple - California hazelnut - sorrel                                | OR1008     | G3S3     | CR             |                    | SS           | McCain 2004: 231  |
| <i>Acer circinatum</i> / <i>Athyrium filix-femina</i> - <i>Tolmiea menziesii</i>                                       | vine maple / ladyfern - youth-on-age                                     | CEGL003291 | G5S3     | WC, WV         | WA                 | SS           | Diaz and Mellen 1996: 95; Diaz and Mellen 1996; Hemstrom et al. 1987: 262, 263; Murray 2000: 23                         |
| <i>Acer glabrum</i>  | Rocky Mountain maple   | CEGL001062 | G4?S2    | BM             | CA, CO, MT, NV, WY |              | Cole 1977b: 93; Cole 1982: 16   |
| <i>Acer glabrum</i> - <i>Amelanchier alnifolia</i> - <i>Prunus virginiana</i>  | Rocky Mountain maple - serviceberry - chokecherry mixed shrub bottomland | OR0004     | G4S3     | BM, BR, CP, EC | ID, NV, WA         | SS           | Crowe et al. 2004: 184; Kittel et al. 1999a; Hansen et al. 1995; Manning and Padgett 1995; Crawford 2001                |
| <i>Acer glabrum</i> - <i>Philadelphus lewisii</i> - <i>Symphoricarpos albus</i> Riparian Shrubland [Provisional]       | Rocky Mountain maple - mock orange - snowberry                           | OR1009     | G3S1     | BM             |                    | SS           | Crowe et al. 2004: 184; Wells 2006: 114   |
| <i>Acer macrophyllum</i> - <i>Alnus rubra</i> / <i>Polystichum munitum</i> - <i>Tellima grandiflora</i>                | bigleaf maple - red alder / sword fern - fringe cup                      | CEGL003334 | G2G3S2S3 | WV             | BC, WA             |              | Chappell 2001; Chappell 2006a   |
| <i>Acer macrophyllum</i> - <i>Pseudotsuga menziesii</i> - <i>Umbellularia californica</i> / <i>Polystichum munitum</i> | bigleaf maple - Douglas-fir - California laurel / sword fern             | CEGL000518 | G3S3     | KM             | CA?                |              | Titus 1998  |
| <i>Acer macrophyllum</i> - <i>Pseudotsuga menziesii</i> / <i>Acer circinatum</i> / <i>Polystichum munitum</i>          | bigleaf maple - Douglas-fir / vine maple / sword fern                    | CEGL003394 | G4S4     | CR, WC, WV     | WA?                |              | Hawk 1973: 57   |
| <i>Acer macrophyllum</i> - <i>Pseudotsuga menziesii</i> / <i>Corylus cornuta</i> / <i>Hydrophyllum tenuipes</i>        | bigleaf maple - Douglas-fir / hazelnut / Pacific waterleaf               | CEGL000517 | G3S2     | WC, WV         | BC?, WA?           | FW           | McCain and Christy 2005: 174  |
| <i>Acer macrophyllum</i> / <i>Acer circinatum</i>  | bigleaf maple / vine maple   | CEGL000560 | G4S3     | WC, WV         | BC?, WA            | FW           | Titus et al. 1996; McCain 2004: 119, 137  |
| <i>Acer macrophyllum</i> / <i>Acer circinatum</i> - <i>Corylus cornuta</i> Riparian Forest [Provisional]               | Bigleaf maple / vine maple - California hazelnut                         | OR1010     | G3S3     | WC             |                    | SS           | McCain 2004: 139, 141, 143, 146   |
| <i>Acer macrophyllum</i> / <i>Carex deweyana</i>   | bigleaf maple / Dewey sedge  | CEGL003297 | G3S3     | WV             | BC                 | FW           | Titus et al. 1996   |
| <i>Acer macrophyllum</i> / <i>Corylus cornuta</i> - <i>Rubus spectabilis</i> Riparian Forest [Provisional]             | Bigleaf maple / California hazelnut - salmonberry                        | OR1013     | G3S3     | CR             |                    | FW           | McCain 2004: 242  |
| <i>Acer macrophyllum</i> / <i>Rubus spectabilis</i>  | bigleaf maple / salmonberry  | CEGL000561 | G4S2     | WV             | BC?, WA            | FW           | Titus et al. 1996   |
| <i>Acer macrophyllum</i> / <i>Rubus ursinus</i> riparian forest  | bigleaf maple / California blackberry riparian forest                    | CEGL003395 | S3       | CR, WV, WC     | WA?                | FW           | Titus et al. 1996   |
| <i>Acer macrophyllum</i> / <i>Symphoricarpos albus</i> / <i>Urtica dioica</i> ssp. <i>gracilis</i>                     | bigleaf maple / common snowberry / stinging nettle                       | CEGL003396 | G3S3     | WV             | WA?                |              | Titus et al. 1996; McCain 2004: 254, 261, 263, 279  |

| Scientific Name   | Common Name  | ELCODE     | G/S Rank | Ecoregions | W S & P                             | Wetland Type | References   |
|---|--|------------|----------|------------|-------------------------------------|--------------|--|
| <i>Acer macrophyllum</i> / <i>Urtica dioica</i> ssp. <i>gracilis</i>  | bigleaf maple / stinging nettle  | CEGL003397 | G3S3     | WV         | BC, WA?                             |              | Titus et al. 1996; McCain 2004: 254  |
| <i>Achnatherum lemmonii</i> / <i>Racomitrium ericoides</i>  | Lemmon needlegrass / Racomitrium moss bald   | CEGL001800 | G1S1     | WV         |                                     |              | ORBIC unpubl. data   |
| <i>Adiantum aleuticum</i> Wet Herbaceous Riparian [Provisional]   | Northern maidenhair fern   | OR1014     | G4S3     | BM, WC     |                                     | HR           | McCain 2004: 150; Crowe et al. 2004: 152   |
| <i>Agrostis pallens</i> Grassland   | thin bentgrass   | CEGL001600 | G1S1     | BM         | WA                                  | WM           | Hall 1973: 5; Crowe and Clausnitzer 1997: 201; Crowe et al. 2004: 137  |
| <i>Allenrolfea occidentalis</i>   | iodine bush playa  | CEGL000988 | G3S2     | BR         | AZ, CA, NM, NV, UT +                | AW           | Thomas et al. 2009a; Sawyer et al. 2009; Peterson 2008; Muldavin et al. 2000b; Griffiths 1902; Evens et al. 2014; Coles et al. 2009a; Buck-Diaz et al. 2012  |
| <i>Allium validum</i> - <i>Carex scopulorum</i> Wet Meadow [Provisional]  | Pacific swamp onion - mountain sedge   | OR0005     | G3S3     | BM, EC     | ID, WA                              | WM           | Crowe and Clausnitzer 1997: 213; Titus et al. 1998; Crowe et al. 2004: 153, 155; Wells 2006: 152   |
| <i>Alnus incana</i> - <i>Betula occidentalis</i>  | mountain alder - western birch   | CEGL001142 | G2S1     | BM, BR     | CA?, CO, ID, MT?, UT?, WA, WY?      | SP           | Titus et al. 1998; Crowe et al. 2004: 223  |
| <i>Alnus incana</i> - <i>Betula occidentalis</i> / <i>Carex amplifolia</i> Wet Shrubland [Provisional]                        | Mountain alder - water birch / big-leaf sedge  | OR1016     | G3S3     | BM         |                                     | SS           | Crowe et al. 2004: 193; Wells 2006: 120  |
| <i>Alnus incana</i> - <i>Cornus sericea</i>   | mountain alder - creek dogwood   | CEGL001145 | G3S3     | BM, BR, EC | CA, CO, ID, MT, NM, NV, UT, WA, WY? | SS           | McNeil 1975: 85; Manning and Padgett 1991: 163; Crowe and Clausnitzer 1997: 134; Kovalchik 1993: 128; Moseley 1998: 28; Crowe et al. 2004: 217; Wells 2006: 100, 102, 105  |
| <i>Alnus incana</i> - <i>Cornus sericea</i> - <i>Philadelphus lewisii</i> Wet Shrubland [Provisional]                         | Mountain alder - creek dogwood - Lewis' mockorange                                       | OR1017     | G2S2     | BM         |                                     | SS           | Crowe et al. 2004: 224   |
| <i>Alnus incana</i> - <i>Physocarpus capitatus</i> / <i>Equisetum arvense</i> - <i>Elymus glaucus</i> Shrubland [Provisional] | Mountain alder - Pacific ninebark / common horsetail - blue wildrye                      | OR0006     | G3S2     | BM, CP, EC | ID, WA                              | SS           | Titus et al. 1998; Crowe et al. 2004: 219  |
| <i>Alnus incana</i> - <i>Ribes</i> ( <i>inermis</i> , <i>hudsonianum</i> , <i>lacustre</i> ) Wet Shrubland                    | Mountain alder - gooseberry (white-stem gooseberry, stinking currant, swamp gooseberry ) | CEGL001151 | G3S2     | BM, EC     |                                     | SS           | Crowe et al. 2004: 214; Youngblood et al. 1985a; Crowe and Clausnitzer 1997  |
| <i>Alnus incana</i> - <i>Spiraea douglasii</i>  | mountain alder - Douglas spiraea   | CEGL001152 | G3S2     | BM, EC     | CA, ID, WA                          | SS           | Kovalchik 1987: 71; Kovalchik 1993: 122; Crowe et al. 2004: 212  |
| <i>Alnus incana</i> - <i>Symphoricarpos albus</i>   | mountain alder - common snowberry  | CEGL001153 | G3S2     | BM, EC     | CA?, WA                             | SS           | Padgett 1981: 57; Kauffman 1982: 60; Kauffman et al. 1985: 17; Kovalchik 1987: 69; Crowe and Clausnitzer 1997: 140; Kovalchik 1993: 124; Crowe et al. 2004: 220; Wells 2006: 105   |
| <i>Alnus incana</i> / <i>Athyrium filix-femina</i>  | mountain alder / ladyfern  | CEGL002628 | G3S3     | BM         | BC?, CA?, ID, MT?, WA               | SS           | Crowe and Clausnitzer 1997: 130; Kovalchik 1993: 118; Crowe et al. 2004: 201   |
| <i>Alnus incana</i> / <i>Calamagrostis canadensis</i>   | mountain alder / bluejoint reedgrass   | CEGL001143 | G3S3     | BM         | CO?, ID, MT, NM, WA, WY             | SS           | Padgett et al. 1989: 51; Crowe and Clausnitzer 1997: 147; Kovalchik 1993: 110; Crowe et al. 2004: 198  |
| <i>Alnus incana</i> / <i>Carex</i> ( <i>aquatilis</i> , <i>kelloggii</i> , <i>luzulina</i> , <i>pellita</i> ) wet shrubland   | mountain alder / sedge wet shrub   | CEGL001144 | G3S3     | BM, EC     | ID?, MT, WA                         | SS           | Kauffman 1982: 60, 65; Kauffman et al. 1985: 17; Kovalchik 1987: 67, 73, 137; Padgett et al. 1989: 51; Evenden 1990: 33, 35; Crowe and Clausnitzer 1997: 126, 128, 142, 146; Kovalchik 1993: 114; Titus et al. 1998; Crowe et al. 2004: 197, 199 |

| Scientific Name   | Common Name  | ELCODE     | G/S Rank | Ecoregions     | W S & P                        | Wetland Type | References   |
|---|--|------------|----------|----------------|--------------------------------|--------------|--|
| <i>Alnus incana</i> / <i>Equisetum arvense</i>  | mountain alder / common horsetail                                      | CEGL001146 | G3S3     | BM             | BC?, CA?, CO, ID, UT, WA, WY   | SS           | Crowe and Clausnitzer 1997: 138; Kovalchik 1993: 120; Padgett et al. 1989: 49; Crowe et al. 2004: 204; Wells 2006: 104   |
| <i>Alnus incana</i> / <i>Glyceria striata</i>   | mountain alder / fowl mannagrass                                       | CEGL000228 | G3S3     | BM             | ID, WA, WY                     | SS           | Kovalchik 1987: 73; Padgett et al. 1989: 51; Crowe and Clausnitzer 1997: 116, 132, 148; Kovalchik 1993: 126; Crowe et al. 2004: 206; McCain et al. 2014: 62; Wells 2006: 104 |
| <i>Alnus incana</i> / mesic forbs wet shrubland   | mountain alder / mesic forb  | CEGL001147 | G3S3     | BM             | CA, CO, ID, MT, NV, UT, WA, WY | SS           | Crowe and Clausnitzer 1997: 148; Titus et al. 1998; Padgett et al. 1989; Murray 2000: 30; Christy 2004: 36; Crowe et al. 2004: 209, 210; Odion et al. 2013: 95               |
| <i>Alnus incana</i> / <i>Ribes</i> (inermis, hudsonianum, lacustre)   | mountain alder - currant (stinking currant - swamp gooseberry)         | CEGL001151 | G3S3     | BM, EC         | BC?, ID, WA, WY?               | SS           | Kovalchik 1987: 67; Crowe and Clausnitzer 1997: 136  |
| <i>Alnus incana</i> / <i>Scirpus microcarpus</i>  | mountain alder / smallfruited bulrush                                  | CEGL000481 | G2S2     | BM, CP, EC     | WA                             | SS           | Titus et al. 1998; Crowe et al. 2004: 195  |
| <i>Alnus rhombifolia</i> / <i>Acer circinatum</i> Riparian Forest [Provisional]   | White alder / vine maple   | OR1019     | G1S1     | EC             |                                | FW           | Crowe et al. 2004: 361   |
| <i>Alnus rhombifolia</i> / <i>Amelanchier alnifolia</i>   | white alder / serviceberry   | CEGL000631 | G3S3     | BM, CP         | CA?, ID                        | FW           | Miller 1976: 138   |
| <i>Alnus rhombifolia</i> / <i>Betula occidentalis</i>   | white alder / western birch  | CEGL000632 | G1S1     | BM, BR, CP     | ID, WA                         | FW           | Daubenmire 1970: 60; Titus et al. 1998; Crowe et al. 2004: 359   |
| <i>Alnus rhombifolia</i> / <i>Carex nudata</i>  | white alder / torrent sedge  | OR0007     | G1S1     | BM, CP         | WA                             | FW           | Crowe et al. 2004: 353   |
| <i>Alnus rhombifolia</i> / <i>Celtis laevigata</i> var. <i>reticulata</i>   | white alder / netleaf hackberry  | CEGL000633 | G1S1     | BM, BR, CP     | ID, WA                         | FW           | Miller 1976: 132; Crowe et al. 2004: 356   |
| <i>Alnus rhombifolia</i> / <i>Cornus sericea</i> ssp. <i>sericea</i>  | white alder / red-osier dogwood  | OR1022     | G2S2     | BM, BR, CP, EC | ID, WA                         | FW           | Moseley 1998: 42; Titus et al. 1998; Crowe et al. 2004: 357, 360; Wells 2006: 72, 74   |
| <i>Alnus rhombifolia</i> / <i>Crataegus douglasii</i>   | white alder / black hawthorn   | OR0009     | G1S1     | BM, CP         | WA?                            | FW           | Crowe et al. 2004: 360   |
| <i>Alnus rhombifolia</i> / <i>Philadelphus lewisii</i> riparian forest  | white alder / mockorange   | CEGL000634 | G1S1     | BM, BR, CP     | CA?, ID, WA                    | FW           | Miller 1976: 136; Moseley 1998: 19; Titus et al. 1998; Crowe et al. 2004: 354; Wells 2006: 72, 74  |
| <i>Alnus rhombifolia</i> / <i>Prunus virginiana</i>   | white alder / chokecherry  | CEGL000635 | G2S1     | BM, BR, CP     | ID                             | FW           | Miller 1976: 140   |
| <i>Alnus rhombifolia</i> / <i>Rosa woodsii</i>  | white alder / Wood's rose  | CEGL000636 | G1S1     | BM, BR, CP     | CA?, ID                        | FW           | Miller 1976: 137   |
| <i>Alnus rhombifolia</i> alluvial bar Riparian Forest [Provisional]   | White alder alluvial bar   | OR1023     | G3S3     | BM, BR, CP     | ID?                            | FW           | Crowe et al. 2004: 351   |
| ( <i>Alnus rubra</i> - <i>Abies amabilis</i> ) / <i>Rubus spectabilis</i> - <i>Vaccinium ovalifolium</i> / <i>Lysichiton americanus</i> Riparian Forest [Provisional] | Red alder - silver fir / salmonberry - early blueberry / skunk cabbage | OR1001     | G2S2     | WC             |                                | FW           | McCain 2004: 170   |
| <i>Alnus rubra</i> - <i>Acer macrophyllum</i> / <i>Rubus spectabilis</i> Riparian Forest  | Red alder - bigleaf maple / salmonberry                                | OR0008     | G4S3     | WC             | WA                             | FW           | Murray 2000: 42; McCain 2004: 78, 80, 90   |
| ( <i>Alnus rubra</i> - <i>Populus trichocarpa</i> ) / <i>Rubus spectabilis</i> / <i>Hydrophyllum tenuipes</i> Riparian Forest [Provisional]                           | Red alder - black cottonwood / salmonberry / Pacific waterleaf         | OR1002     | G2S2     | WV             |                                | FW           | McCain 2004: 269   |
| <i>Alnus rubra</i> / <i>Acer circinatum</i> / <i>Claytonia sibirica</i>   | red Alder / vine maple / Siberian springbeauty                         | CEGL003298 | G4G5S4   | CR, WC, WV     | WA                             | FW           | Diaz and Mellen 1996: 43; Titus et al. 1996  |
| <i>Alnus rubra</i> / <i>Athyrium filix-femina</i> - <i>Asarum caudatum</i>  | red alder / ladyfern - wild ginger swamp                               | CEGL000008 | G1S1     | BM             | ID, WA                         | FW           | Crowe et al. 2004: 377; Crowe and Clausnitzer 1997; Bailey et al. 1994   |
| <i>Alnus rubra</i> / <i>Athyrium filix-femina</i> - <i>Lysichiton americanus</i> swamp forest   | red alder / ladyfern - skunk cabbage                                   | CEGL003388 | G3S3     | WC, WV         | AK?, BC?, WA                   | FW           | Henderson 1970: 42; Henderson 1979: 200; Kunze 1994: 32; Titus et al. 1996; Christy 2004: 21; Crowe and Clausnitzer 1997: 100; Titus et al. 1998; Murray 2000: 41            |

| Scientific Name   | Common Name  | ELCODE     | G/S Rank | Ecoregions | W S & P             | Wetland Type | References  |
|---|--|------------|----------|------------|---------------------|--------------|---|
| <i>Alnus rubra</i> / <i>Cornus sericea</i> [Provisional]  | red alder / creek dogwood                                | OR0010     | G3S2     | BM, EC, WC | WA                  | FW           | Crowe and Clausnitzer 1997: 100; Titus et al. 1998; Crowe et al. 2004: 381  |
| <i>Alnus rubra</i> / <i>Elymus glaucus</i>  | red alder / blue wildrye                                 | CEGL003398 | G4S3     | CR, WC, WV | WA                  | FW           | Diaz and Mellen 1996: 47, 103; Fonda 1974: 930; McCain 2004: 74   |
| <i>Alnus rubra</i> / <i>Oplopanax horridus</i> - <i>Rubus spectabilis</i>                           | red alder / devil's club - salmonberry                   | CEGL003399 | G4G5S3   | WC         | BC?, WA             | FW           | Diaz and Mellen 1996: 51; Murray 2000: 43; McCain 2004: 161   |
| <i>Alnus rubra</i> / <i>Oxalis (oregana, trilliifolia)</i>  | red Alder / (redwood sorrel, threelife woodsorrel)       | CEGL003400 | G4S4     | CR, WC, WV | WA                  | FW           | Diaz and Mellen 1996: 55; McCain 2004: 105, 123, 126, 129, 131  |
| <i>Alnus rubra</i> / <i>Petasites frigidus</i> var. <i>palmatus</i> Riparian Forest                 | red alder / Arctic sweet-colt's-foot                     | CEGL003401 | G4S3     | BM, EC, WC | WA                  | FW           | Crowe and Clausnitzer 1997: 100; Diaz and Mellen 1996: 59; Crowe et al. 2004: 379   |
| <i>Alnus rubra</i> / <i>Physocarpus capitatus</i> - <i>Philadelphus lewisii</i>                     | red alder / Pacific ninebark - Lewis' mock orange        | CEGL000002 | G1S1     | BM, EC, WC | ID?, WA             | FW           | Crowe and Clausnitzer 1997: 98; Titus et al. 1998; Crowe et al. 2004: 375   |
| <i>Alnus rubra</i> / <i>Polystichum munitum</i>   | red alder / sword fern                                   | CEGL000638 | G4S4     | CR, WC, WV | BC?, CA, WA         |              | Rocchio et al. 2012; Kagan et al. 2012; Henderson et al. 1986; del Moral and Long 1977; Crawford et al. 2009; Chappell 2006b; Chappell 2001; Agee 1987            |
| <i>Alnus rubra</i> / <i>Rubus parviflorus</i>   | red alder / thimbleberry                                 | CEGL003402 | G4S4     | CR, WC, WV | WA                  | FW           | Diaz and Mellen 1996: 63  |
| <i>Alnus rubra</i> / <i>Rubus spectabilis</i>   | red alder / salmonberry                                  | CEGL000639 | G4G5S4   | CR, WC, WV | BC?, CA, WA         | FW           | Henderson 1970: 42; Kunze 1994: 32; Diaz and Mellen 1996: 67, 71; Titus et al. 1996   |
| <i>Alnus rubra</i> / <i>Rubus spectabilis</i> - <i>Sambucus racemosa</i> riparian forest            | red Alder / salmonberry - red elderberry riparian forest | CEGL003463 | G3G4S4   | CR, WV     | CA, WA?             | FW           | Crowe et al. 2004; Crowe and Clausnitzer 1997; Bailey et al. 1994   |
| <i>Alnus rubra</i> / <i>Rubus spectabilis</i> / <i>Carex obnupta</i> - <i>Lysichiton americanus</i> | red alder / salmonberry / slough sedge - skunk cabbage   | CEGL003389 | G3G4S3   | CR, WC, WV | BC?, CA?, WA        | FW           | Henderson 1970: 42; Henderson 1979: 200; Kunze 1994: 98; Klinka et al. 1996: 153; Christy et al. 1998: 64; Christy 2001a: 10; Christy 2004: 22                    |
| <i>Alnus rubra</i> / <i>Salix lasiolepis</i> riparian forest  | red Alder / arroyo willow riparian forest                | CEGL003163 | G4S3     | CR, WC, WV | CA, WA?             | FW           | Schirokauer et al. 2003; Sawyer et al. 2009   |
| <i>Alnus rubra</i> / <i>Stachys chamissonis</i> var. <i>cooleyae</i> - <i>Tolmiea menziesii</i>     | red Alder / Cooley's hedge-nettle - piggyback plant      | CEGL003403 | G4S4     | CR, WC, WV | BC?, WA             | FW           | Diaz and Mellen 1996: 75, 79  |
| <i>Alnus rubra</i> / <i>Symphoricarpos albus</i> Riparian Forest [Provisional]                      | red alder / common snowberry                             | OR0011     | G2S1     | BM         | ID?, WA             | FW           | Crowe and Clausnitzer 1997: 100; Titus et al. 1998; Crowe et al. 2004: 382; Wells 2006: 69  |
| <i>Alnus viridis</i> ssp. <i>sinuata</i>  | Sitka alder shrubland                                    | CEGL001154 | G5S5     | BM         | AK, ID?, MT, WA     | SS           | Cole 1977b: 99; Cole 1982: 17; Johnson and Clausnitzer 1992: 148; Titus et al. 1998   |
| <i>Alnus viridis</i> ssp. <i>sinuata</i> - <i>Acer circinatum</i>                                   | Sitka alder - vine maple                                 | CEGL001155 | G4S3     | WC         | WA                  | SS           | del Moral 1973  |
| <i>Alnus viridis</i> ssp. <i>sinuata</i> - <i>Oplopanax horridus</i> Shrub Swamp                    | Sitka alder - devil's club                               | CEGL001157 | G4G5S4   | BM, WC     | BC, WA              | SS           | Daubenmire and Daubenmire 1968: 50; Williams and Winward 1976: 40; Williams 1978: 83; Hemstrom et al. 1987: 258; Brett et al. 1998: 31; Diaz and Mellen 1996: 119 |
| <i>Alnus viridis</i> ssp. <i>sinuata</i> - <i>Rubus spectabilis</i> Wet Shrubland [Provisional]     | Sitka Alder / salmonberry                                | OR1026     | G3S3     | WC         |                     | SS           | Murray 2000: 32; McCain 2004: 108; McCain et al. 2014: 66; Diaz and Mellen 1996: 111; Diaz and Mellen 1996: 111   |
| <i>Alnus viridis</i> ssp. <i>sinuata</i> / <i>Athyrium filix-femina</i> - <i>Cinna latifolia</i>    | Sitka alder / ladyfern - drooping woodreed wet shrubland | CEGL001156 | G4S3     | BM, WC     | BC?, CA, ID, MT, WA | SS           | Kovalchik 1993: 133, 135; Crowe and Clausnitzer 1997: 122, 124, 146; Titus et al. 1998; Crowe et al. 2004: 241, 244; Wells 2006: 99                               |
| <i>Alnus viridis</i> ssp. <i>sinuata</i> / <i>Lysichiton americanus</i> Wet Shrubland [Provisional] | Sitka alder / skunk cabbage                              | OR1027     | G3S3     | WC         |                     | SS           | Christy 2004: 37  |
| <i>Alnus viridis</i> ssp. <i>sinuata</i> / mesic forbs wet shrubland                                | Sitka alder / mesic forbs wet shrubland                  | CEGL002633 | G4S3     | BM, WC     | AB?, ID?, MT, WA    | SS           | Reid et al. 2004; Kovalchik 1993; Hop et al. 2007; Erixson et al. 2011b; Crowe and Clausnitzer 1997; Crowe et al. 2004: 236                                       |

| Scientific Name   | Common Name   | ELCODE     | G/S Rank | Ecoregions | W S & P                          | Wetland Type | References  |
|---|---|------------|----------|------------|----------------------------------|--------------|---|
| <i>Alnus viridis</i> ssp. <i>sinuata</i> / <i>Rubus</i> ( <i>lasiococcus</i> , <i>parviflorus</i> ) wet shrubland   | Sitka alder / blackberry wet shrubland                                    | CEGL002602 | G4S4     | BM         | ID?                              | SS           | Titus et al. 1998; Johnson and Clausnitzer 1992: 148  |
| <i>Alopecurus aequalis</i> Marsh [Provisional]  | Short-awn foxtail   | OR1028     | G4S3     | BR         |                                  | FM           | Christy 2016: 12  |
| <i>Alopecurus saccatus</i> - <i>Plagiobothrys bracteatus</i> Vernal Pool [Provisional]                              | Saccate foxtail - bracted popcorn flower                                  | OR1029     | G2S2     | KM         | CA?                              | VP           | Titus and Christy 2017: 6; Hirsch and Riefler 1981: 9, 10; Meinke and Magee 1986; Titus and Christy 1996b   |
| <i>Arctostaphylos patula</i> / <i>Ceanothus velutinus</i> - <i>Ceanothus prostratus</i>                             | greenleaf manzanita - snowbrush ceanothus - prostrate ceanothus shrubland | CEGL000957 | G3S2     | EC, KM, WC | CA?, NV                          |              | Townsend 1966   |
| <i>Arctostaphylos patula</i> Sierran chaparral shrubland  | greenleaf manzanita Sierran chaparral shrubland                           | CEGL005820 | G5?S3    | EC, KM, WC | CA                               |              | Sawyer et al. 2009; Odion et al. 2013; Keeler-Wolf et al. 2012; Keeler-Wolf et al. 2003a; DiPaolo et al. 2015   |
| <i>Arctostaphylos viscida</i> - <i>Ceanothus cuneatus</i> / <i>Festuca idahoensis</i> - <i>Achnatherum lemmonii</i> | sticky manzanita - buckbrush chaparral                                    | CEGL000959 | G2S2     | KM         | CA?                              |              | Atzet and Wheeler 1984; Sawyer et al. 2009; Sawyer and Keeler-Wolf 1995; Detling 1961; Barbour and Major 1988   |
| <i>Aristida purpurea</i> var. <i>longiseta</i> - <i>Sporobolus cryptandrus</i>                                      | red threeawn - sand dropseed  | CEGL001515 | G1S1     | BM         | ID?, WA                          |              | Johnson and Simon 1987  |
| <i>Artemisia arbuscula</i> - <i>Purshia tridentata</i> / <i>Pseudoroegneria spicata</i> - <i>Festuca idahoensis</i> | low sagebrush - bitterbrush / bluebunch wheatgrass - Idaho fescue         | CEGL001518 | G3S3     | BM, BR, EC | NV                               |              | Dealy 1971:67; Segura-Bustamante 1970; Peterson 2008  |
| <i>Artemisia arbuscula</i> / <i>Festuca idahoensis</i>  | low sagebrush / Idaho fescue  | CEGL001409 | G5S3     | BR, EC     | CA?, CO, ID, MT, NV, UT?, WA, WY |              | Dealy 1971: 80; Volland 1976: 25; Hopkins 1979a: 17; Hopkins 1979b: 10; Day and Wright 1985: 4; Zamora and Tueller 1973; Tweit and Houston 1980; Sabinske 1978; Mueggler and Stewart 1980; Lewis 1975a; Lewis 1971; Jones 1992b; Hironaka et al. 1983; Hall 1973; Cogan et al. 2005; Blackburn et al. 1969c; Blackburn et al. 1969a; Blackburn et al. 1968b |
| <i>Artemisia arbuscula</i> / <i>Poa secunda</i>   | low sagebrush / Sandberg bluegrass  | CEGL001411 | G5S5     | BM, BR, EC | CA, ID, NV                       |              | Dealy 1971: 85, 89; Hopkins 1979a: 10, 15; Day and Wright 1985: 3; Heinze et al. 1962; Blackburn et al. 1969c; Blackburn et al. 1969b; Blackburn et al. 1969a; Blackburn et al. 1968b; Blackburn et al. 1968a; Bell et al. 2009   |
| <i>Artemisia arbuscula</i> / <i>Pseudoroegneria spicata</i>   | low sagebrush / bluebunch wheatgrass                                      | CEGL001412 | G5S3     | BM, BR, EC | ID, MT, NM?, NV, WA, WY          |              | Hall 1973: 14; Zamora and Tueller 1973; Tiedemann and Klock 1977; Schulz and Hall 2011; Schuller and Evans 1986; Peterson 2008; Mueggler and Stewart 1980; Lewis 1975a; Jensen et al. 1988b; Jensen et al. 1988a; Hironaka et al. 1983; Cogan et al. 2012; Cogan et al. 2005; Blackburn et al. 1971; Bell et al. 2009                                       |
| <i>Artemisia arbuscula</i> ssp. <i>longicaulis</i> / <i>Elymus elymoides</i> shrubland                              | Lahontan sagebrush / squirreltail shrubland                               | CEGL002986 | G3S1     | BR         | CA?, NV                          |              | Winward and McArthur 1995; Sawyer et al. 2009   |
| <i>Artemisia arbuscula</i> ssp. <i>longiloba</i> / <i>Festuca idahoensis</i> shrub grassland                        | alkali sagebrush / Idaho fescue shrub grassland                           | CEGL001522 | G2S1     | BR         | ID, MT, NV, WY                   |              | Zamora and Tueller 1973; Tisdale et al. 1965; Schlatterer 1972; Mueggler and Stewart 1980; Jensen et al. 1988a; Hironaka et al. 1983; Caicco and Wellner 1983h; Bell et al. 2009  |
| <i>Artemisia cana</i> / <i>Poa fendleriana</i>  | silver sagebrush / fendler bluegrass playa                                | CEGL001071 | G2G3S2   | BR         | CO, UT?                          |              | Turner 1969; Tiedemann et al. 1987; Johnston 1987; Hess 1981; Francis 1983  |
| <i>Artemisia cana</i> - <i>Artemisia tridentata</i> ssp. <i>vaseyiana</i> / <i>Poa cusickii</i>                     | silver sagebrush - mountain big sagebrush / Cusick's bluegrass            | CEGL001549 | G2S2     | BM, BR, EC | CA?, NV?                         |              | Kovalchik 1987; Kartesz 1999; Crowe et al. 2004: 236  |
| <i>Artemisia cana</i> (ssp. <i>bolanderi</i> , ssp. <i>viscidula</i> ) / <i>Poa secunda</i>                         | silver sagebrush / Nevada bluegrass                                       | CEGL001548 | G2S1     | BR         | CA?, NV?                         | AW           | Titus 1995a; Moseley 1998: 46; Titus et al. 1998  |
| <i>Artemisia cana</i> / <i>Deschampsia cespitosa</i>  | Silver sagebrush / tufted hairgrass                                       | CEGL001074 | G2S2     | BM, BR, EC | ID, UT, WY                       | AW           | Youngblood et al. 1985a; Padgett et al. 1989; Padgett et al. 1988b; Mutz and Graham 1982; Hansen et al. 1995; Crowe et al. 2004: 232; Crowe and Clausnitzer 1997; Beetle 1961   |
| <i>Artemisia cana</i> / <i>Eleocharis palustris</i>   | silver sagebrush / common spikerush playa                                 | CEGL002987 | G3S2     | BM, BR     | NV?                              | AW           | Titus 1995a; Titus et al. 1998  |
| <i>Artemisia cana</i> / <i>Leymus cinereus</i>  | silver sagebrush / basin wildrye  | CEGL001460 | G1S1     | BR         | CA, MT, NV?                      | AW           | Kagan and Seyer 1982  |

| Scientific Name  | Common Name  | ELCODE     | G/S Rank | Ecoregions | W S & P                          | Wetland Type | References   |
|--|--|------------|----------|------------|----------------------------------|--------------|--|
| <i>Artemisia cana</i> / <i>Muhlenbergia richardsonis</i>   | silver sagebrush / mat muhly playa   | CEGL001743 | G3S3     | BR         | CA, ID, NV                       | AW           | Dealy 1971: 93; Manning and Padgett 1991: 222; Moseley 1998: 46  |
| <i>Artemisia cana</i> / <i>Poa fendleriana</i>   | silver sagebrush / fendler bluegrass playa   | CEGL001551 | G2S2     | BM, BR, EC | CA?, NV?                         | AW           | Christy and Cornelius 1980; Padgett 1981: 58; Kovalchik 1987: 65; Titus et al. 1998  |
| <i>Artemisia ludoviciana</i> Herbaceous Riparian [Provisional]   | Prairie sage   | OR1030     | G4S2     | BM         | ID?, WA?                         | HR           | Crowe et al. 2004: 157; Wells 2006: 159  |
| <i>Artemisia nova</i> / <i>Poa secunda</i>   | black sagebrush / Sandberg bluegrass   | CEGL001423 | G3S2     | BR         | CA?, CO, ID, NV, UT?             |              | Tendick et al. 2010; Rust 1999; Peterson 2008; Hironaka et al. 1983; Coles et al. 2010; Caicco and Wellner 1983f   |
| <i>Artemisia nova</i> / <i>Pseudoroegneria spicata</i>   | black sagebrush / bluebunch wheatgrass   | CEGL001424 | G4G5S2   | BR         | CO, ID, MT, NV, UT, WY           |              | Zamora and Tueller 1973; Tweit and Houston 1980; Stevens et al. 2015; Schulz and Hall 2011; Robertson et al. 1966; Peterson 2008; Knight et al. 1987; Jones and Ogle 2000; Jones 1992b; Johnston 1987; Hughes 1977; Hironaka et al. 1983; Friesen et al. 2010; Fisser 1970; Fisser 1962; Coles et al. 2008a; Cogan et al. 2012; Blackburn et al. 1971; Blackburn et al. 1968c; Baker and Kennedy 1985; Baker 1983c |
| <i>Artemisia papposa</i> / <i>Danthonia californica</i> - <i>Festuca idahoensis</i>  | Owyhee sagebrush playa   | CEGL002991 | G2S1     | BM         | ID                               |              | Moseley 1998: 47   |
| <i>Artemisia rigida</i> / <i>Festuca idahoensis</i> shrub grassland  | scabland sagebrush / Idaho fescue shrub grassland                                    | CEGL002995 | G2S2     | BM, BR, CP | ID                               |              | ORBIC unpubl. data   |
| <i>Artemisia rigida</i> / <i>Poa secunda</i>   | rigid sagebrush / Sandberg bluegrass   | CEGL001528 | G4S4     | BM, BR, CP | ID, WA                           |              | Daubenmire 1970; Hall 1973: 13, 47; Ganskopp 1979: 46, 100; Copeland 1980b: 58; Johnson and Simon 1987: 138; Easterly and Salstrom 1997: 32  |
| <i>Artemisia rigida</i> / <i>Pseudoroegneria spicata</i>   | rigid sagebrush / bluebunch wheatgrass   | CEGL001529 | G3S3     | BM, BR     |                                  |              | ORBIC unpubl. data   |
| <i>Artemisia tridentata</i> - <i>Atriplex canescens</i> - <i>Sarcobatus vermiculatus</i> / ( <i>Achnatherum hymenoides</i> ) shrubland | big sagebrush - fourwing saltbush - greasewood / (Indian ricegrass) shrubland        | CEGL001355 | G3S2     | BR         | CA?, NV                          |              | Schulz and Hall 2011; Price et al. 1981; Peterson 2008   |
| <i>Artemisia tridentata</i> (ssp. <i>tridentata</i> , ssp. <i>xericensis</i> ) / <i>Pseudoroegneria spicata</i> shrub grassland        | (basin big sagebrush, Foothill big sagebrush) / bluebunch wheatgrass shrub grassland | CEGL001018 | GUS1     | BR         | CA, CO?, ID, MT, NV, UT, WA, WY  |              | Tweit and Houston 1980; Mueggler and Stewart 1980; Mooney 1985; Jones and Ogle 2000; Johnston 1987; Jensen et al. 1988a; Hironaka et al. 1983; Hansen et al. 1984; DiPaolo et al. 2015; Daubenmire 1988; Daubenmire 1970; Cooper et al. 1999; Coles et al. 2011; Caicco and Wellner 1983k; Bell et al. 2009  |
| <i>Artemisia tridentata</i> ssp. <i>tridentata</i> / <i>Festuca idahoensis</i>   | basin big sagebrush / Idaho fescue   | CEGL001014 | G4?S1    | BM, BR, CP | ID, MT, NV                       |              | Jensen et al. 1988a; Hironaka et al. 1983; Cooper et al. 1999; Bell et al. 2009  |
| <i>Artemisia tridentata</i> ssp. <i>tridentata</i> / <i>Hesperostipa comata</i> shrubland  | basin big sagebrush / needle-and-thread  | CEGL002966 | G4?SH    | BM, BR, CP | BC?, CA?, CO, ID, MT, NV, UT, WA |              | Daubenmire 1970; Hironaka et al. 1983: 29; Easterly and Salstrom 1997: 23  |
| <i>Artemisia tridentata</i> ssp. <i>tridentata</i> / <i>Leymus cinereus</i>  | basin big sagebrush / basin wildrye  | CEGL001016 | G2S1     | BM, BR, CP | CA, CO, ID, MT, NV, WA, WY       |              | Moseley 1998: 29; Hess 1981; Friesen et al. 2010; Coles et al. 2008a; Cogan et al. 2012; Bell et al. 2009; Baker and Kennedy 1985; Baker 1983b; Baker 1982b; Jones and Ogle 2000; Jones and Fertig 1996; Johnston 1987   |
| <i>Artemisia tridentata</i> ssp. <i>tridentata</i> / <i>Poa secunda</i> - <i>Pseudoroegneria spicata</i>                               | basin big sagebrush / Sandberg bluegrass - bluebunch wheatgrass Palouse prairie      | CEGL001019 | G1S1     | CP         | WA?                              |              | Easterly and Salstrom 1997: 14   |
| <i>Artemisia tridentata</i> ssp. <i>vaseyana</i> - <i>Ephedra viridis</i>  | mountain big sagebrush - green Mormon tea  | CEGL001649 | G2G4S1   | BR         | NV?, UT                          |              | Van Pelt 1978  |
| <i>Artemisia tridentata</i> ssp. <i>vaseyana</i> - <i>Purshia tridentata</i> / <i>Pseudoroegneria spicata</i>                          | mountain big sagebrush - bitterbrush / bluebunch wheatgrass                          | CEGL001032 | G5?S4    | BR, EC     | ID, NV, WY                       |              | Dealy 1971: 69   |

| Scientific Name   | Common Name   | ELCODE     | G/S Rank | Ecoregions     | W S & P                               | Wetland Type | References  |
|---|---|------------|----------|----------------|---------------------------------------|--------------|---|
| <i>Artemisia tridentata</i> ssp. <i>vaseyana</i> - <i>Symphoricarpos oreophilus</i> / <i>Bromus carinatus</i> shrubland                       | mountain big sagebrush - mountain snowberry / California brome shrubland  | CEGL001035 | G4QS3    | BR             | ID, NV, UT?, WY                       |              | Jensen et al. 1988b; Jensen et al. 1988a; Cogan et al. 2005   |
| <i>Artemisia tridentata</i> ssp. <i>vaseyana</i> - <i>Symphoricarpos oreophilus</i> / <i>Festuca idahoensis</i> shrubland                     | mountain big sagebrush - mountain snowberry / Idaho fescue shrubland      | CEGL001036 | G4S3     | BR             | ID, MT, NV, WY                        |              | Tueller and Eckert 1987; Schulz and Hall 2011; Jones 1992b; Hironaka et al. 1983; Cooper et al. 1999; Cogan et al. 2005; Caicco and Wellner 1983a   |
| <i>Artemisia tridentata</i> ssp. <i>vaseyana</i> / <i>Achnatherum occidentale</i> s   | mountain big sagebrush / western needlegrass                              | CEGL001033 | G2S2     | BR, EC         | CA?, ID?, NV?                         |              | Dealy 1971: 74; Volland 1976: 27; Day and Wright 1985: 3; Johnson and Clausnitzer 1992: 147   |
| <i>Artemisia tridentata</i> ssp. <i>vaseyana</i> / <i>Carex geyeri</i>  | mountain big sagebrush / elk sedge  | CEGL001532 | G3S3     | BM, BR, EC     | CO, ID, NV?, WY                       |              | Hall 1973: 44; Johnson and Simon 1987: 162; Johnson and Clausnitzer 1992: 137   |
| <i>Artemisia tridentata</i> ssp. <i>vaseyana</i> / <i>Festuca idahoensis</i>  | mountain big sagebrush / Idaho fescue                                     | CEGL001533 | G5S3     | BM, BR, EC     | AB?, CA?, CO, ID, MT, NV, UT?, WA, WY |              | Volland 1976: 26; Hopkins 1979a: 14; Johnson and Simon 1987: 163; Johnson and Clausnitzer 1992: 139   |
| <i>Artemisia tridentata</i> ssp. <i>vaseyana</i> / <i>Poa secunda</i>   | mountain big sagebrush / Sandberg bluegrass                               | CEGL001029 | G3SU     | BM, BR, EC     | CO, ID, NV, WY                        |              | Hall 1973: 15; Day and Wright 1985: 3   |
| <i>Artemisia tridentata</i> ssp. <i>vaseyana</i> / <i>Pseudoroegneria spicata</i>   | mountain big sagebrush / bluebunch wheatgrass                             | CEGL001030 | G5S3     | BM, BR, EC     | CO, ID, MT, NV, UT?, WY               |              | Volland 1976: 30; Hall 1973: 15; Hopkins 1979a: 14; Day and Wright 1985: 2  |
| <i>Artemisia tridentata</i> ssp. <i>wyomingensis</i> - <i>Purshia tridentata</i> / <i>Pseudoroegneria spicata</i> - <i>Festuca idahoensis</i> | Wyoming big sagebrush - bitterbrush / bluebunch wheatgrass - Idaho fescue | CEGL001050 | G3QS3    | BM, BR, CP, EC | CA?, CO, ID                           |              | Day and Wright 1985: 3; Johnson and Simon 1987: 163   |
| <i>Artemisia tridentata</i> ssp. <i>wyomingensis</i> / <i>Achnatherum thurberiana</i>   | Wyoming big sagebrush / Thurber needlegrass                               | CEGL001052 | G3S3     | BM, BR, CP, EC | CA, ID, NV                            |              | Peterson 2008; Murphy and Rust 2000; Hironaka et al. 1983; Caicco and Wellner 1983j; Caicco and Wellner 1983i; Blackburn et al. 1971; Blackburn et al. 1968b; Bell et al. 2009                                |
| <i>Artemisia tridentata</i> ssp. <i>wyomingensis</i> / <i>Carex filifolia</i> shrubland   | Wyoming big sagebrush / threadleaf sedge shrubland                        | CEGL001042 | G1QS1    | BM             | ID, MT, WY?                           |              | Caicco and Wellner 1983k  |
| <i>Artemisia tridentata</i> ssp. <i>wyomingensis</i> / <i>Elymus elymoides</i> shrubland  | Wyoming big sagebrush / squirreltail shrubland                            | CEGL001043 | G4G5S4   | BM, BR, CP, EC | CO, ID, NV, WY                        |              | Peterson 2008; Jensen et al. 1988b; Jensen et al. 1988a; Hironaka et al. 1983; Coles et al. 2008a   |
| <i>Artemisia tridentata</i> ssp. <i>wyomingensis</i> / <i>Festuca idahoensis</i>  | Wyoming big sagebrush / Idaho fescue                                      | CEGL005478 | G4S2     | BM, BR, CP, EC | AB?, BC?, CA?, CO, ID, MT, NV, WY     |              | Doescher et al. 1986; Bell et al. 2009  |
| <i>Artemisia tridentata</i> ssp. <i>wyomingensis</i> / <i>Hesperostipa comata</i>   | Wyoming big sagebrush / needle-and-thread                                 | CEGL001051 | G2S2     | BM, BR, CP, EC | ID, NV, UT?, WA                       |              | Winward 1970; Peterson 2008; Hironaka et al. 1983; Erixson et al. 2011b; Erixson and Cogan 2009; Caicco and Wellner 1983k; Bell et al. 2009   |
| <i>Artemisia tridentata</i> ssp. <i>wyomingensis</i> / <i>Poa secunda</i>   | Wyoming big sagebrush / Sandberg bluegrass                                | CEGL001049 | G4S4     | BR             | CA?, CO, ID, MT, NV, WA, WY           |              | Peterson 2008; Jensen et al. 1988b; Jensen et al. 1988a; Hironaka et al. 1983; Friesen et al. 2010; Erixson and Cogan 2009; Coles et al. 2010; Coles et al. 2008a; Caicco and Wellner 1983i; Bell et al. 2009 |

| Scientific Name  | Common Name   | ELCODE     | G/S Rank | Ecoregions     | W S & P  | Wetland Type | References  |
|--|---|------------|----------|----------------|--|--------------|---|
| <i>Artemisia tridentata</i> ssp. <i>wyomingensis</i> / <i>Pseudoroegneria spicata</i>                              | Wyoming big sagebrush / bluebunch wheatgrass              | CEGL001535 | G4S3     | BM, BR, CP, EC | AZ?, BC?, CA, CO, ID, MT, NM?, NV, UT?, WA, WY + |              | Head 1959: 24; Tweit and Houston 1980; Tisdale 1947; Tiedemann et al. 1987; Thilenius et al. 1995; Strong 1980; Rice et al. 2012b; Peterson 2008; Mueggler and Stewart 1980; McLean 1970; Knight et al. 1987; Jones and Ogle 2000; Jones 1992b; Johnston 1987; Hironaka et al. 1983; Hess 1981; Hansen and Hoffman 1988; Fisser 1970; Fisser 1964; Faber-Langendoen 2001; Eckert 1957; DeVelice and Lesica 1993; Daubenmire 1988; Cooper et al. 1995; Brown 1971; Blackburn et al. 1968b; Blackburn 1967; Baker and Kennedy 1985; Baker 1983c |
| <i>Artemisia tridentata</i> var. <i>wyomingensis</i> - <i>Peraphyllum ramosissimum</i> / <i>Festuca idahoensis</i> | Wyoming big sagebrush - squawapple / Idaho fescue         | CEGL001048 | G2S2     | BM, BR         | CA?  |              | Dealy et al. 1981: 48   |
| <i>Artemisia tripartita</i> / <i>Festuca idahoensis</i>  | threetip sagebrush / Idaho fescue                         | CEGL001536 | G3S2     | BM, BR         | CO, ID, MT, WA                                   |              | Daubenmire 1970; Day and Wright 1985: 3   |
| <i>Artemisia tripartita</i> / <i>Pseudoroegneria spicata</i>   | threetip sagebrush / bluebunch wheatgrass                 | CEGL001538 | G2G3S1   | BM, BR         | BC, ID, MT, WA                                   |              | Daubenmire 1970   |
| <i>Artemisia tripartita</i> ssp. <i>tripartita</i> / <i>Hesperostipa comata</i> shrub grassland                    | Threetip sagebrush / needle-and-thread shrub grassland    | CEGL001539 | G2S1     | BM, BR         | BC?, ID, WA, WY                                  |              | Reid et al. 1994; McLean 1970; McLean 1969; Hironaka et al. 1983; Daubenmire 1970; Cogan et al. 2005; Bell et al. 2009  |
| <i>Athyrium filix-femina</i> - <i>Glyceria striata</i> - <i>Senecio triangularis</i> [Provisional]                 | Lady fern - fowl mannagrass - arrowleaf groundsel         | OR1031     | G4S3     | BM, EC, WC     | WA   | HR           | Crowe et al. 2004: 156  |
| <i>Athyrium filix-femina</i> - <i>Scirpus microcarpus</i> Marsh [Provisional]                                      | Lady fern   | OR1032     | G4S3     | CR             |  | FM           | Christy 2004: 67  |
| <i>Atriplex canescens</i> - <i>Sarcobatus vermiculatus</i> / ( <i>Achnatherum hymenoides</i> )                     | fourwing saltbush - greasewood / (Indian ricegrass) dunes | CEGL001046 | G5S2     | BR             | CA?, CO, ID, NV, UT                              |              | Price and Seibert 1981: 19; Tendick et al. 2017; Tendick et al. 2010; Schulz and Hall 2011; Poulton 1955; Peterson 2008; Johnston 2001; Johnston 1987; Ferchau 1973; Erixson and Cogan 2009; Coles et al. 2010; Bell et al. 2009; Baker 1982b   |
| <i>Atriplex confertifolia</i> - <i>Artemisia tridentata</i> ssp. <i>wyomingensis</i>                               | shadscale - Wyoming big sagebrush rimrock and ashbeds     | CEGL001040 | G4S4     | BR             | CA, CO, MT, UT, WY? +                            |              | Von Loh et al. 2008; Von Loh et al. 2007; Stevens et al. 2015; Knight et al. 1987; DeVelice and Lesica 1993; Coles et al. 2008a; Brown 1971   |
| <i>Atriplex confertifolia</i> - <i>Sarcobatus vermiculatus</i> / ( <i>Achnatherum hymenoides</i> )                 | shadscale - black greasewood / (Indian ricegrass)         | CEGL001313 | G5S3     | BR             | AZ, CA, CO, NV, UT, WY                           |              | Von Loh et al. 2007; Tendick et al. 2012; Romme et al. 1993; Peterson 2008; Miller et al. 1977; Friesen et al. 2010; Fenemore 1970; Clark et al. 2009   |
| <i>Atriplex confertifolia</i> / <i>Achnatherum hymenoides</i>  | shadscale / Indian ricegrass                              | CEGL001311 | G3S3     | BR             | CA?, CO, ID, NV, UT, WY?                         |              | Young et al. 1986; Ward et al. 1974; Tendick et al. 2017; Rust et al. 2000b; Romme et al. 1993; Rickard and Beatley 1965; Peterson 2008; Moseley 1987b; Moseley 1987a; Keammerer 1977; Keammerer 1974b; Erixson and Cogan 2009; Coles et al. 2008a; Clark et al. 2009; Caicco and Wellner 1983g; Blackburn et al. 1969b; Blackburn et al. 1968a; Baker 1982b  |
| <i>Atriplex confertifolia</i> / <i>Elymus elymoides</i>  | shadscale / bottlebrush squirreltail                      | CEGL001302 | G3G5S3   | BR             | ID, NV, UT                                       |              | Vest 1962b; Peterson 2008;  |
| <i>Atriplex confertifolia</i> / <i>Pseudoroegneria spicata</i> shrubland   | shadscale / bluebunch wheatgrass                          | CEGL001312 | G3S1     | BR             | CO, ID, NV?, WY?                                 |              | Baker and Kennedy 1985; Baker 1983c; Baker 1983b; Baker 1982b   |
| <i>Atriplex confertifolia</i> sparse shrubland   | shadscale sparse shrubland                                | CEGL003830 | G4S2     | BR             | NM, NV, UT                                       |              | Tendick et al. 2017; Tendick et al. 2012; Peterson 2008; Muldavin et al. 1998d  |
| <i>Atriplex gardneri</i> / <i>Achnatherum hymenoides</i>   | saltsage / Indian ricegrass                               | CEGL001444 | G3S3     | BR             | CO, MT, UT, WY                                   |              | Singh and West 1971; Romme et al. 1993; DeVelice 1992; Cooper et al. 1995; Clark et al. 2009; Baker and Kennedy 1985; Baker 1983c   |
| <i>Azolla</i> ( <i>filiculoides</i> , <i>mexicana</i> )  | water-fern aquatic bed                                    | CEGL003017 | G4S4     | CR, WV         | CA, WA   | AB           | Christy 2004: 68; Titus and Christy 1997; Sawyer et al. 2009; Sawyer and Keeler-Wolf 1995; McCain and Christy 2005; Kagan et al. 2012; Buck-Diaz et al. 2012  |



| Scientific Name   | Common Name   | ELCODE     | G/S Rank | Ecoregions | W S & P                              | Wetland Type | References   |
|---|---|------------|----------|------------|--------------------------------------|--------------|--|
| Baccharis pilularis - Frangula californica - Rubus parviflorus                  | coyotebrush - California buckthorn coastal headland shrubland | CEGL003191 | G2S1     | CR         | CA                                   |              | Schirokauer et al. 2003; Sawyer et al. 2009  |
| Baccharis pilularis / Artemisia pycnocephala - Scrophularia californica         | coyotebrush / beach wormwood coastal dune shrubland           | CEGL001426 | G1G2S1   | CR         | CA                                   |              | Wiedemann 1984; Alpert 1984  |
| Baccharis pilularis / Deschampsia cespitosa shrubland                           | coyotebrush / tufted hairgrass shrubland                      | CEGL003188 | G2S1     | CR         | CA                                   |              | Schirokauer et al. 2003; Sawyer et al. 2009; Sawyer and Keeler-Wolf 1995; Elliott and Wehausen 1974  |
| Betula glandulosa / Carex aquatilis var. dives Wet Shrubland [Provisional]      | Dwarf birch / Sitka sedge                                     | OR1033     | G3S2     | WC         | WA?                                  | FE           | Murray 2000: 44; Christy 2004: 39  |
| Betula nana / Carex utriculata  | bog birch / beaked sedge                                      | CEGL001079 | G4?S3    | BR, EC, WC | AB, CA?, ID, MT                      | FE           | Seyer 1979: 117; Jankovsky-Jones et al. 1999; Hop et al. 2007; Hansen et al. 1995; Hansen et al. 1991  |
| Betula occidentalis - Celtis laevigata var. reticulata wet shrubland            | water birch - netleaf hackberry wet shrubland                 | CEGL003450 | G2S2     | BM, CP     | ID?, WA?                             | SS           | Crowe et al. 2004  |
| Betula occidentalis - Cornus sericea  | western birch - creek dogwood                                 | CEGL001161 | G3S2     | BM, EC     | CA, CO, ID, MT, NM, NV, UT, WA, WY + | SS           | Manning and Padgett 1989: 33; Padgett et al. 1989: 52; Titus et al. 1998   |
| Betula occidentalis - Crataegus douglasii                                       | western birch - black hawthorn                                | CEGL001081 | G2S1     | BM, BR, CP | ID, WA                               | SS           | Moseley 1986; Evans 1989a  |
| Betula occidentalis / Maianthemum stellatum wet shrubland                       | water birch / starry false lily-of-the-valley wet shrubland   | CEGL001162 | G4S2     | EC         | CA, CO, ID, NV, UT, WA               | SS           | Titus et al. 1998  |
| Betula occidentalis / Philadelphus lewisii - Symphoricarpos albus wet shrubland | western birch - mockorange - snowberry                        | CEGL000489 | G2S2     | BM, CP, EC | WA                                   | SS           | Crowe et al. 2004: 175; Crowe and Clausnitzer 1997: 164; Crowe et al. 2004: 175; Wells 2006: 106   |
| Betula occidentalis / Philadelphus lewisii wet shrubland                        | western birch - mockorange                                    | CEGL002668 | G2S2     | BM, BR, CP | ID, WA                               | SS           | Moseley 1998: 42; Titus et al. 1998; Crowe et al. 2004: 174  |
| Betula occidentalis wet shrubland   | water birch wet shrubland                                     | CEGL001080 | G2S2     | BM, BR     | AB, CO, ID, MT, NV, UT, WA, WY       | SS           | Weixelman et al. 1996; Tendick et al. 2011b; Romme et al. 1993; Rice et al. 2012c; Reid et al. 2004; Padgett et al. 1989; Manning and Padgett 1995; Kittel and Lederer 1993; Jones 1992b; Hop et al. 2007; Hansen et al. 1995; Hansen et al. 1991; Hansen and Hall 2002; Hall and Hansen 1997; Evans 1989a; Crowe et al. 2004; Crowe and Clausnitzer 1997; Coles et al. 2008a; Clark et al. 2009; Chadde et al. 1988 |
| Bidens cernua   | nodding beggars-tick marsh                                    | CEGL003324 | G3S3     | CR, WV     | WA                                   | FM           | Christy and Putera 1993: 40; Kunze 1994: 44; Christy 2004: 69; Murray 2000; McCain and Christy 2005  |
| Bidens frondosa Marsh [Provisional]   | Leafy beggars-tick  | OR1035     | G4S4     | CR, WV     |                                      | FM           | Christy 2004: 70   |
| Bistorta bistortoides - Ranunculus macounii Wet Meadow [Provisional]            | American bistort - Macoun's buttercup                         | OR1036     | G4S4     | BM, BR     |                                      | WM           | Evenden 1990: 50   |
| Bolboschoenus maritimus tidal salt marsh  | cosmopolitan bulrush tidal salt marsh                         | CEGL003287 | G3S2     | CR         | BC?, CA, WA                          | SM           | Sawyer et al. 2009; Sawyer and Keeler-Wolf 1995; Rodwell 1995b; Pickart 2006; Holland 1986b; Eilers 1976; Eilers 1975a: 225; Dethier 1990; Copass and Ramm-Granberg 2016a  |
| Boykinia major Fen [Provisional]  | Large boykinia  | OR1038     | G4S2     | CR, WC     |                                      | FE           | Murray 2000: 13; Christy 2004: 71  |
| Boykinia occidentalis - Mitella ovalis Herbaceous Riparian [Provisional]        | Slender boykinia - oval leaved mitrewort                      | OR1039     | G4S3     | WC         |                                      | HR           | McCain 2004: 61  |
| Brasenia schreberi western aquatic vegetation                                   | watershield western aquatic vegetation                        | CEGL005200 | G4S3     | CR, KM     | BC, WA                               | AB           | Titus 1996; McCain and Christy 2005; Kunze 1994; Christy 2004: 72  |

| Scientific Name  | Common Name                                       | ELCODE     | G/S Rank | Ecoregions     | W S & P                              | Wetland Type | References  |
|--|---|------------|----------|----------------|--------------------------------------|--------------|---|
| <i>Bulboschoenus maritimus</i> (interior alkaline)   | Alkali bulrush                                    | CEGL001843 | G4S4     | BR             | CA?, CO, ID, MT, NM, NV, WA          | AW           | Sawyer et al. 2009; Salas et al. 2010b; Kittel et al. 1999b; Kittel and Lederer 1993; Hansen et al. 1995; Hansen et al. 1991; Griffiths 1902; Crowe et al. 2004; Copeland 1979; Carsey et al. 2003a; Bundy et al. 1996                            |
| <i>Calamagrostis canadensis</i>  | bluejoint reedgrass western herbaceous vegetation | CEGL001559 | G4S4     | BM, EC         | AB, BC, CA, CO, ID, MT, UT, WA, WY + | WM           | Cole 1977b: 100; Padgett et al. 1989: 105; Crowe and Clausnitzer 1997: 38, 188; Kovalchik 1987: 138; Kovalchik 1993: 195; Titus et al. 1998; Crowe et al. 2004: 138; Wells 2006: 146  |
| <i>Calamagrostis nutkaensis</i> - <i>Carex</i> spp. - <i>Juncus</i> spp. Grassland                   | Pacific reedgrass - sedge - rush                  | CEGL003378 | G2S1     | CR             | WA?                                  | FM           | Christy 2004: 74; Sawyer et al. 2009; Schirokauer et al. 2003   |
| <i>Calamagrostis nutkaensis</i> - <i>Elymus glaucus</i>  | Pacific reedgrass - blue wildrye                  | CEGL001564 | G2S1     | CR             | CA, WA?                              |              | Ripley 1983: 114; Crowe et al. 2004   |
| <i>Calamagrostis nutkaensis</i> / <i>Baccharis pilularis</i> grassland                               | Pacific reedgrass / coyotebrush grassland         | CEGL003377 | G2S2     | CR             | CA, WA                               |              | Schirokauer et al. 2003; Sawyer et al. 2009   |
| <i>Calliscirpus criniger</i> - <i>Eleocharis quinqueflora</i> Fen [Provisional]                      | Fringed cottongrass - few-flowered spikerush      | OR1040     | G2S2     | KM             | CA                                   | SF           | Titus and Christy 2017: 3   |
| <i>Callitriche heterophylla</i>  | different-leaved water-starwort aquatic bed       | CEGL003301 | G4S4     | CR, KM, WC, WV | AK?, WA                              | AB           | Titus and Christy 1996a; Christy 2004: 75   |
| <i>Callitriche verna</i> AquaticVegetation [Provisional]   | Spring water-starwort                             | OR1042     | G4S4     | CR, EC, KM, WV | WA?                                  | AB           | Crowe et al. 2004: 69   |
| <i>Callitropsis nootkatensis</i> / <i>Oplopanax horridus</i>   | Alaska cedar / devil's club                       | CEGL000349 | G3S2     | WC             | WA                                   | FW           | Dyrness et al. 1974a: 50  |
| <i>Callitropsis nootkatensis</i> / <i>Vaccinium membranaceum</i>                                     | Alaska cedar / thin-leaved blueberry              | CEGL000350 | G3S2     | WC             | WA?                                  |              | Antos and Zobel 1986  |
| <i>Calocedrus decurrens</i> - <i>Pseudotsuga menziesii</i> / <i>Arctostaphylos nevadensis</i> Forest | Incense cedar - Douglas-fir / pinemat manzanita   | CEGL000066 | G3S3     | KM             | CA?                                  |              | Atzet et al. 1996   |
| <i>Caltha leptosepala</i> - <i>Carex obnupta</i> Fen [Provisional]                                   | White marshmarigold - slough sedge                | OR1043     | G3S1     | CR             | WA?                                  | FE           | Christy 2004: 77  |
| <i>Caltha leptosepala</i> wet meadow   | white marsh-marigold                              | CEGL001954 | G4S4     | BM, CR, EC, WC | CO, ID, MT, UT, WY                   | WM           | del Moral 1973: 32; Hickman 1976: 150; Hemstrom et al. 1987: 256; Padgett et al. 1989: 100; Murray 2000: 13; Christy 2004: 76; McCain et al. 2014: 70   |
| <i>Camassia cusickii</i> wet meadow  | Cusick's camas wet meadow                         | CEGL003440 | G2S1     | BM             | ID                                   | WM           | Moseley 1998; Johnson and Simon 1987; Jankovsky-Jones et al. 2001; Crowe et al. 2004: 185   |
| <i>Camassia quamash</i>  | common camas prairie                              | CEGL003341 | G3S3     | KM, WV         | ID, WA                               | WP           | Titus and Christy 1996b; Christy 2004: 78; Erixson and Cogan 2012c; Copass and Ramm-Granberg 2016b; Christy 2004: 78; Chappell 2006a  |
| <i>Camassia quamash</i> - <i>Triteleia hyacinthina</i> Vernal Pool [Provisional]                     | Common camas - hyacinth triteleia                 | OR1044     | G1S1     | KM             | CA?                                  | VP           | Borgias 2004: Appendix 3 p 10   |
| <i>Carex amplifolia</i>  | bigleaf sedge meadow                              | CEGL003427 | G3S3     | BM, CR, EC, WC | ID, WA                               | WM           | Kovalchik 1987: 112; Larkin 1990: 3; Crowe and Clausnitzer 1997: 204; Titus et al. 1998; Murray 2000: 14; Christy 2004: 79; Crowe et al. 2004: 77; Wells 2006: 137  |
| <i>Carex angustata</i> Wet Meadow [Provisional]  | Wide-fruited sedge                                | OR1045     | G4S4     | BM, EC         |                                      | WM           | Christy 2004: 80; Crowe et al. 2004: 79; Wells 2006: 135  |
| <i>Carex aperta</i> Lowland Wet Meadow   | Columbia sedge marsh                              | CEGL001801 | G1S1     | WV             | ID?, MT, WA                          | WM           | Christy and Putera 1993: 40; Kunze 1994: 44; Christy 2004: 81; Piper and Beattie 1915; Murray 2000; McCain and Christy 2005; Jankovsky-Jones et al. 1999; Hansen et al. 1995; Hansen et al. 1991; Gorman 1926; Boggs et al. 1990; Murray 2000: 14 |

| Scientific Name   | Common Name                                     | ELCODE     | G/S Rank | Ecoregions | W S & P                                     | Wetland Type | References  |
|---|---|------------|----------|------------|---|--------------|---|
| <i>Carex aquatilis</i> var. <i>aquatilis</i>                    | water sedge fen                                 | CEGL001802 | G5S4     | BM, BR, EC | AB, AZ?, CA, CO, ID, MT, NM, NV, UT, WA, WY | FE           | Hall 1973: 6; Volland 1976: 20; Hopkins 1979a: 13; Kauffman 1982: 59; Kauffman et al. 1985: 16; Kovalchik 1987: 104; Johnson and Simon 1987: 225; Padgett et al. 1989: 101; Manning and Padgett 1991: 391; Kovalchik 1993: 168; Crowe and Clausnitzer 1997; Crowe et al. 2004: 81; Wells 2006: 125; Christy 2013: 20  |
| <i>Carex aquatilis</i> var. <i>dives</i> - Comarum palustre fen | Sitka sedge - purple marshlocks                 | CEGL003433 | G2S2     | CR         | AK?, BC?, WA                                | FE           | Howarth 1995: 9; Christy 2001a: 33; Christy and Brophy 2002; Christy 2004: 84   |
| <i>Carex aquatilis</i> var. <i>dives</i> Fen                    | Sitka sedge fen                                 | CEGL001826 | G4S4     | EC, KM, WC | AK, BC, CA?, WA                             | FE           | Campbell 1973: 41; Seyer 1979: 39; Frenkel et al. 1986: 33; Wilson 1986: 19; Hemstrom et al. 1987: 255; Kovalchik 1987: 114; Kunze 1994: 27, 84; Titus 1996; Titus and Christy 1996a; Titus et al. 1998; Murray 2000: 14; Christy 2004: 83; Crowe et al. 2004: 84; Odion et al. 2013: 68; McCain et al. 2014: 74, 79  |
| <i>Carex breweri</i>  | Brewer sedge meadow                             | CEGL001805 | G3?S3    | EC, WC     | CA, WA                                      | WM           | Douglas and Bliss 1977: 119; Kovalchik 1987: 126; Titus et al. 1998   |
| <i>Carex buxbaumii</i> fen                                      | Buxbaum's sedge fen                             | CEGL001806 | G3S2     | WC         | AB?, CO, ID, MT, UT, WY                     | FE           | Tuhy 1981; Titus et al. 1998; Titus and Christy 1996a; Reid et al. 2004; Pierce and Johnson 1986; Pierce 1986; Padgett et al. 1989; Moseley et al. 1994; Moseley et al. 1991; McCain and Christy 2005; Mattson 1984; Hop et al. 2007; Hansen et al. 1988b; Crowe et al. 2004: 89; Cogan et al. 2005; Christy 2004: 85 |
| <i>Carex canescens</i> Fen [Provisional]                        | Gray sedge                                      | OR1046     | G5S2     | BM, WC     |   | FE           | Crowe et al. 2004: 90   |
| <i>Carex cusickii</i>   | Cusick's sedge fen                              | CEGL000230 | G3S2     | BM, CR     | BC?, CA?, ID, WA                            | FE           | Kovalchik 1993: 164; Crowe and Clausnitzer 1997: 176; Titus et al. 1998; Kunze 1994: 25; Murray 2000: 15; Christy 2004: 86; Crowe et al. 2004: 91   |
| <i>Carex densa</i> - <i>Deschampsia cespitosa</i> Wet Prairie   | dense sedge - tufted hairgrass wet prairie      | CEGL003455 | G2S2     | KM, WV     | WA  | WP           | Boss 1983: 98; Titus and Christy 1996b; Titus et al. 1996   |
| <i>Carex densa</i> - <i>Eleocharis palustris</i> Wet Prairie    | dense sedge prairie                             | CEGL003456 | G3S2     | KM         | CA?   | WP           | Titus and Christy 1996b   |
| <i>Carex echinata</i> Fen [Provisional]                         | Star sedge                                      | OR1047     | G4S2     | BM, EC, WC |   | FE           | Crowe et al. 2004: 93; Wells 2006: 149  |
| <i>Carex exsiccata</i>  | inflated sedge marsh                            | CEGL003312 | G4S3     | CR, KM, WC | BC?, WA                                     | WM           | Christy and Cornelius 1980; Henderson and McAllister 1983: 2; Padgett et al. 1989: 102; Kunze 1994: 28; Titus et al. 1996; Christy et al. 1998: 110; Christy 2001a: 34; Christy 2004: 88; Murray 2000: 15; Christy 2004: 88; Odion et al. 2013: 75; McCain et al. 2014: 83  |
| <i>Carex feta</i> Wet Prairie [Provisional]                     | Green-sheath sedge                              | OR1048     | G3S2     | WV         | WA  | WP           | Christy 2004: 89  |
| <i>Carex hoodii</i>   | Hood sedge avalanche slope                      | CEGL001595 | G3S3     | BM         | ID, WA                                      |              | Cole 1977b: 96; Cole 1982: 17   |
| <i>Carex illota</i> - <i>Eleocharis quinqueflora</i>            | small-headed sedge - few-flowered spikerush fen | CEGL001876 | G3S3     | BM         | CO, WY                                      | WM           | Titus et al. 1998   |
| <i>Carex interrupta</i> Marsh [Provisional]                     | Green-fruited sedge                             | OR1049     | G3S2     | EC         | CA?,  | FM           | Crowe et al. 2004: 94   |
| <i>Carex kelloggii</i> Wet Meadow [Provisional]                 | Kellogg's sedge                                 | OR1050     | G4S3     | BM, EC, WC | ID?, WA?                                    | WM           | Murray 2000: 16; Christy 2004: 91; Crowe et al. 2004: 98; Wells 2006: 136; McCain et al. 2014: 87   |
| <i>Carex lasiocarpa</i>   | slender sedge fen                               | CEGL001810 | G4S2     | BM, BR, WC | AB, AK?, BC, CA?, CO, ID, MT, UT,           | FE           | Kovalchik 1987: 108; Padgett et al. 1989: 95; Kovalchik 1993: 170; Crowe and Clausnitzer 1997: 200; Kunze 1994: 26; Titus and Christy 1996a; Titus et al. 1998; Christy 2004: 90; Crowe et al. 2004: 96   |
| <i>Carex leporinella</i> Marsh [Provisional]                    | Sierra hair-sedge                               | OR1051     | G4S4     | BM         |   | FM           | Crowe et al. 2004: 100; Wells 2006: 136   |

| Scientific Name   | Common Name   | ELCODE     | G/S Rank | Ecoregions         | W S & P  | Wetland Type | References  |
|---|---|------------|----------|--------------------|--|--------------|---|
| <i>Carex limosa</i>   | mud sedge   | CEGL001811 | G2S2     | BM, EC, WC         | AK?, BC?, CA, CO, ID, MT, NM, UT, WA, WY       | FE           | Carsey et al. 2003a: 440; Christy 2004: 92; Wells 2006: 135   |
| <i>Carex luzulina</i> Fen [Provisional]   | woodrush sedge fen                                  | OR1052     | G4S3     | BM, EC, WC         | ID, WA?  | FE           | Crowe and Clausnitzer 1997: 172; Titus et al. 1998; Christy 2004: 93; Christy 2004: 93; Crowe et al. 2004: 101; Wells 2006: 142; Odion et al. 2013: 72  |
| <i>Carex lyngbyei</i> - ( <i>Distichlis spicata</i> - <i>Triglochin maritimum</i> )   | Lyngby sedge - (saltgrass - arrow grass) salt marsh | CEGL003285 | G4S2     | CR                 | AK, BC, WA                                     | SM           | Eilers 1976: 27; Frenkel et al. 1978: 98; Taylor and Frenkel 1979: 74; Frenkel and Boss 1988: 39; Taylor 1980: 71; Thomas 1980: 8; Dethier 1990: 34; Viereck et al. 1992: 187   |
| <i>Carex lyngbyei</i> - <i>Potentilla anserina</i> ssp. <i>pacifica</i> Salt Marsh    | Lyngby sedge - Pacific silverweed salt marsh        | CEGL003289 | G4S2     | CR                 | BC, WA   | SM           | Dethier 1990: 37; Viereck et al. 1992: 186, 187; Shephard 1995: 164; Christy et al. 1998: 120   |
| <i>Carex lyngbyei</i> marsh   | Lyngby sedge marsh                                  | CEGL003369 | G4S3     | CR                 | AK, BC, WA                                     | FM           | Frenkel and Eilers 1976: 52; Frenkel et al. 1978: 103; Taylor and Frenkel 1979: 58; Taylor 1980: 55; Thomas 1980: 10, 55; Dethier 1990: 33, 35; Viereck et al. 1992: 183; Kunze 1994: 54, 96  |
| <i>Carex macrocephala</i>   | largehead sedge                                     | CEGL003368 | G1G2S1   | CR                 | BC, WA   |              | Christy 2004; Kunze 1984; Copass and Ramm-Granberg 2016a  |
| <i>Carex mendocinensis</i> Fen and Wet Meadow [Provisional]                           | Mendocino sedge                                     | OR1053     | G2S2     | KM                 | CA?  | SF, WM       | Titus and Christy 2017: 2   |
| <i>Carex microptera</i> wet meadow  | small-wing sedge wet meadow                         | CEGL001792 | G4S3     | BM, BR, EC, KM, WC | CO, ID, MT, UT, WY                             | WM           | Youngblood et al. 1985b; Youngblood et al. 1985a; Salas et al. 2005; Reid et al. 2004; Padgett et al. 1989; Padgett et al. 1988b; Kittel et al. 1999b; Kittel 1994; Hop et al. 2007; Hansen et al. 1988b; Cogan et al. 2005; Carsey et al. 2003a  |
| <i>Carex nebrascensis</i>   | Nebraska sedge meadow                               | CEGL001813 | G4S4     | BM, BR, EC         | AB, AZ, CA, CO, ID, MT, NM?, NV, UT, WA?, WY + | WM           | Hall 1973: 6; Beguin and Major 1975: 353; Christy and Cornelius 1980; Kovalchik 1987: 100; Padgett et al. 1989: 107; Manning and Padgett 1991: 416; Crowe and Clausnitzer 1997: 192; Titus et al. 1998  |
| <i>Carex nigricans</i>  | black alpine sedge fen                              | CEGL001816 | G4S4     | BM, BR, EC, WC     | BC, CA?, ID, MT, WA                            | FE, WM       | Kuramoto and Bliss 1970: 325; Campbell 1973: 20, 22; Cole 1977b: 113; Cole 1982: 20; Kovalchik 1987: 128; Kovalchik 1993: 172; Viereck et al. 1992: 191; Brett et al. 1998: 20; Titus et al. 1998; Christy 2004: 95; Crowe et al. 2004: 106; McCain et al. 2014: 174  |
| <i>Carex nudata</i> Wet Herbaceous Riparian [Provisional]                             | Torrent sedge                                       | OR1054     | G3S3     | BM, CP             | WA?  | HR           | Crowe et al. 2004: 108  |
| <i>Carex obnupta</i>  | slough sedge marsh                                  | CEGL003313 | G4S4     | CR, WV             | WA   | FE, WM       | Wiedemann 1966: 131; Taylor and Frenkel 1979: 58; Boss 1983: 45, 98; Ripley 1983: 109; Marshall 1985: 143; Sanville et al. 1986: 127; Kunze 1994: 26, 42, 45, 55, 81; Titus et al. 1996; Christy et al. 1998: 106; Christy 2001a: 34; Christy 2004: 96; Taylor and Frenkel 1979: 60; Taylor 1980: 57; Kunze 1994: 22; Murray 2000: 16; Christy 2004: 96 |
| <i>Carex obnupta</i> - <i>Potentilla anserina</i> ssp. <i>pacifica</i> Brackish Marsh | slough sedge - Pacific silverweed deflation plain   | CEGL001820 | G4S4     | CR                 | CA?, WA?                                       | SM           | Boss 1983: 72; Christy et al. 1998: 108   |
| <i>Carex pachystachya</i> Wet Prairie [Provisional]                                   | Thick-headed sedge                                  | OR1055     | G3S2     | WV                 | WA?  | WP           | Christy 2004: 97  |

| Scientific Name  | Common Name  | ELCODE     | G/S Rank | Ecoregions         | W S & P                                     | Wetland Type | References   |
|--|--|------------|----------|--------------------|---|--------------|--|
| <i>Carex pellita</i>   | woolly sedge fen                                     | CEGL001809 | G3S3     | BM, BR, EC         | BC, CA, CO, ID, MT, NM, NV, UT, WA, WY      | FE, WM       | Ganskopp 1979: 33; Kovalchik 1987: 98; Evenden 1990: 48; Padgett et al. 1989: 108; Manning and Padgett 1991: 421; Crowe and Clausnitzer 1997: 186; Titus et al. 1998; Crowe et al. 2004: 109; Christy 2013: 24   |
| <i>Carex praeegracilis</i>   | clustered field sedge marsh                          | CEGL002660 | G3S2     | BM, BR             | AZ, CA?, CO, ID, MT, NM, UT, WA, WY         | WM           | Crowe and Clausnitzer 1997: 199; Titus et al. 1998; Christy 2013: 26   |
| <i>Carex scirpoidea</i> - <i>Micranthes odontoloma</i> Wet Herbaceous Spring [Provisional] | Northern singlespike sedge - stream saxifrage        | OR1056     | G2S1     | BM                 |   | SP           | Wells 2006: 140  |
| <i>Carex scopulorum</i>  | Holm sedge meadow                                    | CEGL001822 | G5S4     | BM, BR, WC         | BC?, CA, CO, ID, MT, NV, UT?, WA, WY?       | WM           | Campbell 1973: 36; Cole 1977b: 102; Kovalchik 1987: 132; Evenden 1990: 44; Manning and Padgett 1991: 387; Kovalchik 1993: 162; Crowe and Clausnitzer 1997: 170; Titus et al. 1998; Christy 2004: 98; Crowe et al. 2004: 112, 114; Wells 2006: 148; McCain et al. 2014: 223   |
| <i>Carex scopulorum</i> - <i>Eleocharis quinqueflora</i>                                   | Holm sedge - few-flowered spikerush fen              | CEGL001837 | G3S3     | BM, EC, WC         | CA, NV                                      | FE, WM       | Cole 1977b: 102; Ratliff 1982: 8; Manning and Padgett 1991: 399; Wells 2006: 138; McCain et al. 2014: 228  |
| <i>Carex sheldonii</i> wet meadow  | Sheldon sedge  | CEGL005210 | G3S2     | BM, BR, EC         | ID  | WM           | Crowe and Clausnitzer 1997: 201; Moseley 1998: 46; Titus et al. 1998; Crowe et al. 2004: 116; Christy 2013: 29   |
| <i>Carex simulata</i>  | short-beaked sedge fen                               | CEGL001825 | G4S4     | BM, BR, EC         | CA, CO, ID, MT, NM, NV, UT, WA, WY          | FE, WM       | Christy and Cornelius 1980; Kovalchik 1987: 106; Padgett et al. 1989: 104; Manning and Padgett 1991: 395; Titus and Christy 1996a; Crowe and Clausnitzer 1997: 200; Titus et al. 1998; Christy 2004: 99; Crowe et al. 2004: 117  |
| <i>Carex spectabilis</i> - <i>Polygonum bistortoides</i>                                   | showy sedge - American bistort alpine meadow         | CEGL001828 | G4S3     | WC                 | BC?, WA                                     |              | Crawford et al. 2009; Kuramoto and Bliss 1970  |
| <i>Carex spectabilis</i> - <i>Potentilla flabellifolia</i>                                 | showy sedge - high mountain cinquefoil alpine meadow | CEGL001829 | G4QS3    | WC                 | WA  |              | Crawford et al. 2009; Hamann 1972  |
| <i>Carex spectabilis</i> meadow  | showy sedge meadow                                   | CEGL001827 | G5S4     | BM, WC             | BC?, CA, WA                                 | WM           | Douglas 1972; Douglas and Bliss 1977: 129; Cole 1977b: 113; Cole 1982: 20  |
| <i>Carex stipata</i> Wet Meadow [Provisional]  | Awl-fruit sedge                                      | OR1058     | G3S1     | BM, EC             | ID?, WA?                                    | WM           | Crowe et al. 2004: 119   |
| <i>Carex unilateralis</i> - <i>Hordeum brachyantherum</i>                                  | one-sided sedge - meadow barley prairie              | CEGL001830 | G2S2     | KM, WV             | WA?   | WM           | Moir and Mika 1972: 12   |
| <i>Carex utriculata</i>  | beaked sedge marsh                                   | CEGL001562 | G5S4     | BM, BR, CR, EC, WC | AB, AZ?, CA, CO, ID, MT, NM, NV, UT, WA, WY | WP           | Seyer 1979: 35; Kauffman 1982: 59; Kauffman et al. 1985: 16; Frenkel et al. 1986: 33; Halpern 1986: 11; Johnson and Simon 1987: 225; Kovalchik 1987: 118, 118; Viereck et al. 1992: 183; Kunze 1994: 26, 63; Rodwell 1995b: 166; Murray 2000: 16; Christy 2004: 100; Crowe et al. 2004: 120; Wells 2006: 127; McCain et al. 2014: 91 |
| <i>Carex vernacula</i> - <i>Poa fendleriana</i> wet meadow                                 | Native sedge - muttongrass wet meadow                | CEGL001869 | G2G3S2   | BR                 | NV  | FM           | Blackburn et al. 1968b   |
| <i>Carex vesicaria</i>   | blister sedge  | CEGL002661 | G4S4     | BM, BR, CR, EC     | AZ, CA, CO, ID, MT, NV?, WA, WY?            | FM           | Kovalchik 1987: 116; Crowe and Clausnitzer 1997: 180; Manning and Padgett 1991: 452; Titus et al. 1998; Titus and Christy 1996a; Crowe et al. 2004: 123; Wells 2006: 129   |

| Scientific Name   | Common Name   | ELCODE     | G/S Rank | Ecoregions     | W S & P                    | Wetland Type | References   |
|---|---|------------|----------|----------------|----------------------------|--------------|--|
| <i>Ceanothus cuneatus</i> - <i>Cercocarpus betuloides</i> - ( <i>Prunus subcordata</i> ) chaparral [Provisional]  | buckbrush - birchleaf mountain mahogany - Klamath plum chaparral                | OR0013     | G3S3     | KM, EC         | CA                         |              | ORBIC unpubl. data   |
| <i>Ceanothus cuneatus</i> / <i>Achnatherum lemmonii</i>   | buckbrush / Lemmon needlegrass  | CEGL003158 | GNRS2    | KM             | CA                         |              | Keeler-Wolf et al. 2012; Keeler-Wolf et al. 2003a  |
| <i>Ceanothus integerrimus</i> shrubland   | deerbrush shrubland   | CEGL003027 | G4?SNR   | KM             | CA                         |              | Sawyer et al. 2009; Sawyer and Keeler-Wolf 1995; Howard 1997c; Gordon and White 1994                           |
| <i>Ceanothus thrysiflorus</i> - <i>Baccharis pilularis</i> - <i>Toxicodendron diversilobum</i> chaparral  | blueblossom - coyotebrush - Pacific poison oak chaparral                        | CEGL003198 | G4?S2    | KM             | CA                         |              | Schirokauer et al. 2003; Sawyer et al. 2009; Keeler-Wolf 1990a   |
| <i>Ceanothus thrysiflorus</i> - <i>Vaccinium ovatum</i> - <i>Rubus parviflorus</i> shrubland  | blueblossom - California huckleberry - thimbleberry shrubland                   | CEGL003199 | G3S2     | KM             | CA                         |              | Schirokauer et al. 2003; Sawyer et al. 2009  |
| <i>Celtis reticulata</i> / <i>Philadelphus lewisii</i>  | hackberry / mockorange  | CEGL000792 | G1S1     | BM, CP         | ID?, WA                    | SS           | Crowe et al. 2004: 187; Wells 2006: 116, 118   |
| <i>Celtis reticulata</i> / <i>Pseudoroegneria spicata</i>   | hackberry / bluebunch wheatgrass  | CEGL001085 | G2G3S3   | BM, CP         | CA?, CO, ID, WA            |              | Johnson and Simon 1987: 198  |
| <i>Celtis reticulata</i> / <i>Toxicodendron rydbergii</i> wet scrub   | hackberry / western poison-ivy  | CEGL003451 | G2S2     | BM, CP         | ID, WA?                    | SS           | Crowe et al. 2004  |
| <i>Ceratophyllum demersum</i>   | coon's tail aquatic bed   | CEGL004528 | G5S5     | CR, EC, KM, WV | +                          | AB           | McCain and Christy 2005; Rodwell 1995a; Penfound 1953; Hoagland 2000; Christy 2004: 101; Crowe et al. 2004: 69 |
| <i>Cercocarpus ledifolius</i> / <i>Artemisia arbuscula</i> / <i>Poa secunda</i> - <i>Pseudoroegneria spicata</i>  | curlleaf mountain mahogany / low sagebrush / bunchgrass                         | CEGL001487 | G4QS4    | BR             | CA?                        |              | Scheldt 1969   |
| <i>Cercocarpus ledifolius</i> / <i>Artemisia tridentata</i> ssp. <i>vaseyana</i>  | curlleaf mountain mahogany / mountain big sagebrush                             | CEGL001022 | G3S2     | BM, BR         | CA, CO, ID?, NV, UT        |              | Dealy 1975: 74-81; Dealy et al. 1981: 20, 22   |
| <i>Cercocarpus ledifolius</i> / <i>Calamagrostis rubescens</i>  | curlleaf mountain mahogany / pinegrass  | CEGL000961 | G2S1     | BM, BR, EC     | ID                         |              | Dealy 1975:116-122; Dealy et al. 1981: 24  |
| <i>Cercocarpus ledifolius</i> / <i>Festuca idahoensis</i>   | curlleaf mountain mahogany / Idaho fescue                                       | CEGL000962 | G3S3     | BM, BR, EC     | ID, MT, NV                 |              | Dealy 1971: 60; Dealy 1975: 85; Dealy et al. 1981: 22  |
| <i>Cercocarpus ledifolius</i> / <i>Festuca idahoensis</i> - <i>Pseudoroegneria spicata</i>  | curlleaf mountain mahogany / Idaho fescue - bluebunch wheatgrass                | CEGL000968 | G3G4S2   | BM, BR         | CA?                        |              | Dealy 1971: 55; Dealy 1975: 88; Johnson and Clausnitzer 1992: 133  |
| <i>Cercocarpus ledifolius</i> / <i>Prunus virginiana</i>  | curlleaf mountain mahogany / chokecherry  | CEGL000966 | G4S3     | BR             | CA?, CO, NV                |              | Lewis 1975a; Coles et al. 2008a  |
| <i>Cercocarpus ledifolius</i> / <i>Pseudoroegneria spicata</i>  | curlleaf mountain mahogany / bluebunch wheatgrass                               | CEGL000967 | G4QS3    | BM, BR, EC     | CA, CO, ID, MT, NV, UT, WY |              | Hall 1973: 21; Cole 1977b: 91; Dealy et al. 1981: 22; Cole 1982: 17; Johnson and Simon 1987: 192               |
| <i>Cercocarpus ledifolius</i> / <i>Symphoricarpos oreophilus</i>  | curlleaf mountain mahogany / mountain snowberry                                 | CEGL000970 | G2S2     | BM, BR         | ID, NV                     |              | Dealy 1975: 99-111   |
| <i>Chamaecyparis lawsoniana</i> - <i>Abies concolor</i> - <i>Pseudotsuga menziesii</i> / ( <i>Mahonia nervosa</i> var. <i>nervosa</i> ) / <i>Achlys triphylla</i> | Port Orford cedar - white fir - Douglas-fir / (dwarf Oregonrape) / vanillaleaf  | CEGL000041 | G2S2     | CR, KM         | CA                         |              | Hawk 1977; Atzet and Wheeler 1984: 67, 72, 137; Atzet et al. 1996; Odion et al. 2013; Jimerson 1994; Hawk 1977 |
| <i>Chamaecyparis lawsoniana</i> - <i>Abies concolor</i> / <i>Quercus sadleriana</i> / <i>Leucothe davisiae</i> * - <i>Rhododendron macrophyllum</i>               | Port Orford cedar - white fir / Sadler oak / leucothoe - western rhododendron   | CEGL000042 | G2S2     | CR, KM         | CA?                        |              | Hawk 1977; Zobel et al. 1985   |
| <i>Chamaecyparis lawsoniana</i> - <i>Picea sitchensis</i> / <i>Vaccinium ovatum</i> - <i>Rhododendron macrophyllum</i>  | Port Orford cedar - Sitka spruce / evergreen huckleberry - western rhododendron | CEGL000054 | G1S1     | CR             | CA?                        |              | Kagan et al. 1998; Hawk 1977   |
| <i>Chamaecyparis lawsoniana</i> - <i>Pseudotsuga menziesii</i> / ( <i>Rhododendron macrophyllum</i> ) / <i>Xerophyllum tenax</i>                                  | Port Orford cedar - Douglas-fir / (western rhododendron) / beargrass            | CEGL000044 | G2S2     | CR, KM         | CA                         |              | Hawk 1977  |

| Scientific Name   | Common Name   | ELCODE     | G/S Rank | Ecoregions | W S & P | Wetland Type | References  |
|---|---|------------|----------|------------|---------|--------------|---|
| Chamaecyparis lawsoniana - Pseudotsuga menziesii / Notholithocarpus densiflorus / Gaultheria shallon                              | Port Orford cedar - Douglas-fir / tanoak / salal                                      | CEGL000043 | G2S2     | CR, KM     | CA      |              | Hawk 1977: 117; Atzet and Wheeler 1984: 138, 166; Atzet et al. 1996: CHLA 14; Jimerson 1994   |
| Chamaecyparis lawsoniana - Tsuga heterophylla / Polystichum munitum   | Port Orford cedar - western hemlock / sword fern                                      | CEGL000046 | G1S1     | CR, KM     | CA      |              | Hawk 1977: 101; Atzet et al. 1996   |
| Chamaecyparis lawsoniana - Tsuga heterophylla / Rhododendron macrophyllum - Gaultheria shallon                                    | Port Orford cedar - western hemlock / western rhododendron - salal                    | CEGL000045 | G1S1     | CR, KM     |         |              | Hawk 1977: 107; Atzet et al. 1996   |
| Chamaecyparis lawsoniana / Rhododendron occidentale / Carex ultramafic riparian   | Port Orford cedar / western azalea / sedge ultramafic riparian                        | CEGL000047 | G2S2     | KM         | CA      | SF           | Hawk 1977: 157; Copeland 1978: 9; Becking et al. 1982: 9; Zobel et al. 1985: 34; Atzet et al. 1996  |
| Chamaecyparis lawsoniana / Rhododendron occidentale forest  | Port Orford cedar / western azalea  | CEGL003443 | G1S1     | KM         | CA      | SF           | Atzet and McCrimmon 1990; Sawyer et al. 2009; Jimerson et al. 1995; Jimerson 1994; Hawk 1977  |
| Chamaecyparis lawsoniana / Vaccinium ovatum   | Port Orford cedar / evergreen huckleberry dune oldgrowth forest                       | CEGL000048 | G1S1     | CR         | CA?     |              | Hawk 1977; Christy et al. 1998: 40; Randall 1996  |
| Chrysolepis chrysophylla var. chrysophylla - Arbutus menziesii - Notholithocarpus densiflorus [Provisional]                       | chinquapin - madrone - tanoak   | OR0014     | G3S3     | KM, EC     | CA      |              | Uchytel 1991b; Sawyer et al. 2009; Sawyer 2006; McDonald et al. 1983; McDonald and Tappeiner 1990; Jimerson et al. 1996; Atzet and Wheeler 1982; Evens et al. 2006                                  |
| Chrysosplenium glechomifolium Wet Herbaceous Riparian [Provisional]   | Western golden carpet   | OR1059     | G3S3     | CR         |         | HR           | McCain 2004: 188  |
| Cornus sericea - Salix (hookeriana, sitchensis) shrub swamp   | red-osier dogwood - (dune willow, Sitka willow) shrub swamp                           | CEGL003292 | G3S2     | CR, WV     | BC?, WA | SS           | MacKenzie and Moran 2004; Kunze 1994; Frenkel and Eilers 1976; Christy and Putera 1993  |
| Cornus sericea / Lysichiton americanus Shrub Swamp [Provisional]  | Creek dogwood / skunk cabbage   | OR1060     | G3S3     | WC         | WA?     | SS           | Murray 2000: 33; Christy 2004: 40   |
| Cornus sericea Pacific shrub swamp  | red-osier dogwood Pacific shrub swamp   | CEGL005301 | G4S3     | BM, BR, EC | WA      | SS           | Rocchio et al. 2012; MacKenzie and Moran 2004; Diaz and Mellen 1996; Crowe et al. 2004; Crowe and Clausnitzer 1997; Crawford 2003; Crowe et al. 2004: 165, 167, 169, 171, 172, 226; Wells 2006: 108 |
| Corydalis aquae-gelidae Wet Herbaceous Riparian [Provisional]   | Clackamas corydalis   | OR1061     | G3S2     | WC         |         | HR           | McCain 2004: 46   |
| Corydalis scouleri wet meadow   | Scouler's Fumewort wet meadow   | CEGL001939 | G3S3     | WC         | WA      | HR           | Henderson and Peter 1982  |
| Crataegus douglasii - Philadelphus lewisii - Physocarpus malvaceus - Acer glabrum - Prunus virginiana Wet Shrubland [Provisional] | Douglas hawthorn - Lewis' mockorange - mallow ninebark - mountain maple - chokecherry | OR1062     | G3S2     | BM, CP, EC | ID, WA  | SS           | Crowe et al. 2004: 182  |
| Crataegus douglasii - Rhamnus alnifolia Wet Shrubland [Provisional]   | Creek dogwood - alder buckthorn   | OR1063     | G2S2     | CP         |         | SS           | Crowe et al. 2004: 177  |
| Crataegus douglasii / Rosa woodsii wet shrubland  | black hawthorn / Woods' rose wet shrubland  | CEGL001095 | G2G2     | BM, BR, CP | ID, WA  | SS           | Kovalchik 1987; Evans 1989a; Crowe et al. 2004: 179; Crawford 2003  |
| Danthonia californica - Festuca idahoensis wet meadow   | California oatgrass - Idaho fescue wet meadow   | CEGL001607 | G1S1     | BM         | ID      | WP           | Kagan 1989a; Kagan 1987a; Jankovsky-Jones et al. 2001; Kagan 2010   |
| Danthonia californica valley grassland  | California oatgrass valley grassland  | CEGL001598 | G1S1     | WV         | CA, WA  | WP           | Sawyer et al. 2009; Moir and Mika 1972; Kagan and Seyer 1982; Kagan 1980; Johannessen et al. 1971; Grossman et al. 1994; Connelly and Kauffman 1991; Chappell 2006b; Chappell 2006a                 |
| Danthonia unispicata - Poa secunda  | onespike oatgrass - Sandberg bluegrass wet meadow                                     | CEGL001783 | G3S2     | BM, EC     | WA?, WY |              | Johnson and Simon 1987: 145; Hall 1973: 8, 47; Ganskopp 1979: 43, 100; Johnson and Simon 1987: 143, 214; Hall 1973; Ganskopp 1979   |
| Darlingtonia californica - Rudbeckia glaucescens Fen  | California pitcherplant - California coneflower fen                                   | CEGL003046 | G2S2     | KM         | CA      | SF           | Sawyer et al. 2009; Sawyer and Keeler-Wolf 1995; Titus and Christy 2017: 2  |
| Dasiphora fruticosa ssp. floribunda / Deschampsia cespitosa Wet Shrubland   | shrubby cinquefoil / tufted hairgrass   | CEGL001107 | G4S2     | BM         |         | SS           | Crowe et al. 2004: 229, 271; Wells 2006: 96; Kittel et al. 1999b; Hansen et al. 1995; Crowe and Clausnitzer 1997; Carsey et al. 2003a   |

| Scientific Name   | Common Name  | ELCODE     | G/S Rank | Ecoregions | W S & P                                    | Wetland Type | References   |
|---|--|------------|----------|------------|--|--------------|--|
| Deschampsia cespitosa - (Carex lyngbyei, Distichlis spicata) Salt marsh                         | tufted hairgrass - (Lyngbye's sedge, Saltgrass) Salt marsh     | CEGL003357 | G3G4S3   | CR         | BC?, WA                                    | SM           | Dethier 1990   |
| Deschampsia cespitosa - Argentina egedii  | tufted hairgrass - Pacific silverweed high salt marsh          | CEGL003383 | G3G4S2   | CR         | BC?, WA                                    | SM           | Jefferson 1975: 58, 60; Stout 1976: 37; Frenkel et al. 1978: 89; Taylor and Frenkel 1979: 74; Taylor 1980: 71; Viereck et al. 1992: 166  |
| Deschampsia cespitosa - Artemisia lindleyana wet prairie  | tufted hairgrass - Columbia River wormwood marsh               | CEGL003425 | G1S1     | EC, WC     | WA   | WP           | McCain and Christy 2005; Kunze 1994; Glad and Halse 1993; Christy and Putera 1993; Christy 2004: 107   |
| Deschampsia cespitosa - Carex douglasii moist meadow  | tufted hairgrass - Douglas' sedge moist meadow                 | CEGL001602 | G2S2     | BM         | ID?, WA?                                   | WM           | Kagan 1987c; Copeland 1979   |
| Deschampsia cespitosa - Carex microptera wet meadow   | tufted hairgrass - small-wing sedge wet meadow                 | CEGL001883 | G2G3S2   | BM         | CO, ID?, WY                                | WM           | Youngblood et al. 1985a; Walford et al. 1997; Salas et al. 2010b; Padgett et al. 1989; Jones and Ogle 2000; Johnson 1961b; Hansen et al. 1995; Girard et al. 1997; Cogan et al. 2005   |
| Deschampsia cespitosa - Carex nebrascensis  | tufted hairgrass - Nebraska sedge meadow                       | CEGL001601 | G3?QS3   | BM, BR, EC | CO, MT?, NV, UT?, WY                       | WM           | Terwilliger et al. 1979b; Sawyer et al. 2009; Padgett et al. 1989; Manning and Padgett 1995; Kittel et al. 1999b; Hansen et al. 1995; Crowe et al. 2004  |
| Deschampsia cespitosa - Danthonia californica - Rudbeckia glaucescens Wet Prairie [Provisional] | Tufted hairgrass - California oatgrass - California coneflower | OR1065     | G2S2     | KM         | CA?  | SF           | Titus and Christy 2017: 3  |
| Deschampsia cespitosa - Danthonia californica marsh   | tufted hairgrass - California oatgrass marsh                   | CEGL001604 | G2S2     | KM, WV     | WA   | WP           | Titus et al. 1996; Savonen 1988; Moir and Mika 1972; McCain and Christy 2005; Lippert and Jameson 1964; Kauffman and Connelly 1989; Kagan 1983; Kagan 1980; Johannessen et al. 1971; Crowe et al. 2004; Connelly and Kauffman 1991; Connelly 1989; Christy 2004: 108 |
| Deschampsia cespitosa - Juncus balticus Brackish Marsh [Provisional]                            | Tufted hairgrass - Baltic rush                                 | OR1066     | G4S2     | CR         |  | SM           | Taylor 1980: 71  |
| Deschampsia cespitosa - Potentilla anserina ssp. pacifica Salt Marsh                            | Tufted hairgrass - Pacific silverweed                          | CEGL003383 | G3S2     | CR         |  | SM           | Boggs 2000; Christy et al. 1998; Dethier 1990; Frenkel et al. 1978; Jefferson 1975; Kagan et al. 2012; Macdonald 1977  |
| Deschampsia cespitosa - Trifolium longipes Wet Meadow [Provisional]                             | Tufted hairgrass - longstalk clover                            | OR1067     | G4S3     | BM, EC, WC | WA?  | WM           | Christy 2004: 106; Crowe et al. 2004: 144; McCain et al. 2014: 101   |
| Deschampsia cespitosa wet meadow  | tufted hairgrass wet meadow                                    | CEGL001599 | G4S4     | BM, EC     | AB, AZ, CA, CO, ID, MT, NM, NV, UT, WA, WY | WM           | Hall 1973: 4, 5; Kovalchik 1987: 95; Crowe and Clausnitzer 1997: 190; Titus et al. 1998; Titus and Christy 1996a; Christy 2004: 102; Volland 1976: 21; Hopkins 1979a: 12; Murray 2000: 17; Crowe et al. 2004: 139; McCain et al. 2014: 96, 106                       |
| Deschampsia danthonioides - Danthonia unispicata Vernal Pool [Provisional]                      | Annual hairgrass - onespikes oatgrass                          | OR1068     | G3S2     | BM         | ID, WA                                     | VP           | Johnson and Simon 1987   |
| Deschampsia danthonioides - Lasthenia californica Vernal Pool [Provisional]                     | Annual hairgrass - slender goldfields                          | OR1069     | G1S1     | KM         | CA   | VP           | Titus and Christy 2017: 5; Borgias 2004: Appendix 3 p 10   |
| Deschampsia danthonioides - Plagiobothrys leptocladus Vernal Pool [Provisional]                 | Annual hairgrass - slender-branched popcorn flower             | OR1070     | G2S2     | CP         |  | VP           | Meinke and Magee 1986: 34  |
| Deschampsia danthonioides Vernal Pool [Provisional]   | Annual hairgrass   | OR1071     | G2S2     | KM         |  | VP           | Titus and Christy 2017: 5; Borgias 2004: Appendix 3 p 10   |
| Distichlis spicata - (Amphiscirpus nevadensis) Alkaline Wet Meadow                              | alkali saltgrass - (Nevada bulrush) playa                      | CEGL001773 | G4S4     | BM, BR     | CA?, CO, ID, NV?, WA?                      | AW           | Saul 1974; Salas et al. 2010b; Peterson 2008; Griffiths 1902; Daubenmire 1970; Copeland 1979; Daubenmire 1970: 77  |
| Distichlis spicata - (Salicornia perennis) Salt Marsh   | saltgrass - (Virginia glasswort) salt marsh                    | CEGL003356 | G4S2     | CR         | BC?, WA                                    | SM           | Eilers 1984: 8; Dethier 1990: 32; Stout 1976: 35; Frenkel et al. 1978: 82, 89; Frenkel et al. 1981: 200; Frenkel and Boss 1988: 39   |



| Scientific Name   | Common Name                                | ELCODE     | G/S Rank | Ecoregions     | W S & P   | Wetland Type | References  |
|---|--|------------|----------|----------------|---|--------------|---|
| Distichlis spicata - Potentilla anserina ssp. pacifica Salt Marsh [Provisional] | Saltgrass - Pacific silverweed             | OR1072     | G3S2     | CR             | WA  | SM           | Frenkel et al. 1978: 89; Frenkel et al. 1978; Mitchell 1981; Frenkel and Boss 1988; Christy et al. 1998: 124  |
| Distichlis spicata alkaline wet meadow  | saltgrass playa (interior alkaline)        | CEGL001770 | G5S4     | BM, BR, CP     | AZ, CA, CO, ID, MT, NM, NV, UT, WA, WY +              | AW           | Poulton 1955; Daubenmire 1970: 45, 50; Saul 1974: 7; Zedler et al. 1999; Zedler et al. 1992; Weaver and Albertson 1956; Von Loh et al. 2002; Vestal 1914; Ungar et al. 1969; Ungar 1970; Ungar 1968; Ungar 1967; Tuhy and Jensen 1982; Thorne 1976; Tendick et al. 2017; Tendick et al. 2012; Stearns-Roger, Inc. 1978; Solomeshch and Barbour 2006; Shupe et al. 1986; Shanks 1977; Schulz and Hall 2011; Sawyer et al. 2009; Sawyer and Keeler-Wolf 1995; Salas et al. 2010b; Rogers 1953; Rodriguez et al. 2017; Ramaley 1942; Ralston 1969; Pickart 2006; Peterson 2008; Osborn 1974; Muldavin et al. 2000a; Klipple and Costello 1960; Kittel et al. 2012a; Kittel et al. 1999b; Kittel et al. 1999a; Kittel et al. 1994; Kittel and Lederer 1993; Keeler-Wolf and Vaghti 2000; Jones and Walford 1995; Johnston 1987; Hyder et al. 1966; Hansen et al. 1995; Hansen et al. 1991; Graham 1937; Evens et al. 2014; Erixson et al. 2011b; Dodd and Coupland 1966; Daubenmire 1970; Daniels 1911; Crouch 1961a; Costello 1944b; Coles et al. 2008a; Cogan and Taylor 2014; Christy 2013; Carsey et al. 2003a; Bunin 1985; Buck-Diaz et al. 2012; Brotherson 1987; Beatley 1976; Baker 1984a; Christy 2013: 31 |
| Downingia yina Vernal Pool [Provisional]  | Willamette downingia                       | OR1073     | G2S2     | KM             | CA?   | VP           | Titus and Christy 2017: 5; Borgias 2004: Appendix 3 p 10  |
| Dulichium arundinaceum Shore Fen  | threeway sedge fen                         | CEGL001831 | G3S3     | CR, EC, WC, WV | AK?, BC, CA, ID, MT, WA, WY                           | FE           | Kunze 1994: 28; Titus and Christy 1996a; Christy et al. 1998: 111; Titus et al. 1998; Christy 2001a: 36; Christy 2004: 110; Crowe et al. 2004: 76   |
| Eleocharis acicularis marsh   | needle spikerush marsh                     | CEGL001832 | G4S4     | EC, WC         | CA, CO, ID, NV, WY                                    | FM           | Christy and Cornelius 1980; Boss 1983: 147; Titus et al. 1998; Sanville et al. 1986; Salas et al. 2010b; Peterson 2008; Nachlinger 1985; McCain and Christy 2005; Klein et al. 2007; Jankovsky-Jones et al. 1999; Crowe et al. 2004; Cogan et al. 2005; Carsey et al. 2003b; Carsey et al. 2003a; Christy 2004: 111; Crowe et al. 2004: 74  |
| Eleocharis bella Mudflat [Provisional]  | Delicate spikerush                         | OR1074     | G3S1     | BM             |   | FM           | Crowe et al. 2004: 75   |
| Eleocharis obtusa mudflat   | Blunt spikerush                            | CEGL003326 | G4S3     | CR, WV         | WA  | FM           | Lippert and Jameson 1964: 192; Titus et al. 1996; Christy 2004: 112   |
| Eleocharis palustris  | creeping spikerush marsh                   | CEGL001833 | G5S5     | ALL            | AB, AK?, AZ, BC, CA?, CO, ID, MT, NM, NV?, UT, WA, WY | FM           | Padgett 1981: 79; Henderson and McAllister 1983: 2; Boss 1983: 67; Kovalchik 1987: 120; Evenden 1990: 45; Padgett et al. 1989: 94; Manning and Padgett 1991: 384; Kunze 1994: 42, 45, 55; Rodwell 1995b: 203; Crowe and Clausnitzer 1997: 182; Murray 2000: 17; Christy 2004: 113; Crowe et al. 2004: 66; Christy 2013  |
| Eleocharis palustris - Carex unilateralis wet meadow                            | creeping spikerush - one-sided sedge marsh | CEGL003411 | G2S2     | WV             |   | WP           | Lippert and Jameson 1964: 189   |
| Eleocharis quinqueflora   | few-flowered spikerush fen                 | CEGL001836 | G4S2     | BM, BR, EC, WC | CA, CO, ID, MT, NV?, UT, WA, WY                       | FE           | Campbell 1973: 36; Cole 1977b: 102; Seyer 1979: 37, 38; Wilson 1986: 19, 20; Kovalchik 1987: 110; Padgett et al. 1989: 104; Manning and Padgett 1991: 399; Kovalchik 1993: 177; Titus 1995b; Crowe and Clausnitzer 1997: 199; Murray 2000: 15, 18; Christy 2004: 114; Crowe et al. 2004: 126; Wells 2006: 131; McCain et al. 2014: 110  |

| Scientific Name  | Common Name   | ELCODE     | G/S Rank | Ecoregions         | W S & P                         | Wetland Type | References   |
|--|---|------------|----------|--------------------|---------------------------------|--------------|--|
| <i>Eleocharis rostellata</i>   | beaked spikerush marsh                                      | CEGL003428 | G3S3     | BR                 | BC?, CA, CO, ID, MT, NV, WA, WY | AW           | Odion et al. 1992; Lesica 1990; Jankovsky-Jones et al. 2001; Hansen et al. 1995; Hansen et al. 1988a; Evens et al. 2014; Carsey et al. 2003a; Christy 2016: 28                 |
| <i>Elodea canadensis</i>   | Canadian waterweed bed                                      | CEGL003303 | G5S5     | CR, EC, WC, WV     | WA                              | AB           | Kunze 1994: 42, 46, 55; Rodwell 1995b: 76; Titus et al. 1998; Titus and Christy 1996a; Christy 2004: 116; Crowe et al. 2004: 70  |
| <i>Elymus lanceolatus</i> - <i>Hesperostipa comata</i> herbaceous vegetation                                   | downy wheatgrass - needle-and-thread                        | CEGL001746 | G1S1     | CP                 | WA                              |              | Mayfield and Kjølmyr 1984; Kagan 1987c; Copeland 1978  |
| <i>Elymus lanceolatus</i> - <i>Lupinus argenteus</i> grassland   | thick-spike wheatgrass - silvery lupine grassland           | CEGL005595 | G4S1     | BR, CP             | CO, ID, MT, UT, WA              |              | Bell et al. 2009   |
| <i>Empetrum nigrum</i> - <i>Gaultheria shallon</i>   | crowberry - salal oceanfront shrubland                      | CEGL000971 | G2S2     | CR                 | CA                              |              | Kagan et al. 1998  |
| <i>Equisetum arvense</i>   | common horsetail marsh                                      | CEGL003314 | G5S5     | BM, CR, EC, WC, WV | NM, WA                          | HR           | Crowe and Clausnitzer 1997: 210; Diaz and Mellen 1996: 159; Titus et al. 1998; Titus et al. 1999; Christy 2004: 117; Murray 2000: 18; McCain 2004: 185; Crowe et al. 2004: 159 |
| <i>Equisetum fluviatile</i> marsh  | water horsetail marsh                                       | CEGL002746 | G4S3     | CR, EC, WC         | AB, AK, BC, ID, MT, WA          | FM           | Viereck et al. 1992: 196; Kovalchik 1993: 187; Christy and Putera 1993: 40; Kunze 1994: 56, 80; Rodwell 1995b: 172; Shephard 1995: 191; Titus et al. 1998                      |
| <i>Equisetum telmateia</i> Marsh [Provisional]   | Giant horsetail   | OR1076     | G4S3     | CR                 |                                 | WM           | Murray 2000: 19  |
| <i>Eragrostis hypnoides</i> - <i>Gnaphalium palustre</i>   | creeping lovegrass - lowland cudweed mudflat or vernal pool | CEGL003327 | G2S1     | WV                 | BC, CA, WA                      | FM           | Titus et al. 1996; Christy 2004: 118; McCain and Christy 2005  |
| <i>Ericameria parryi</i> shrubland   | Parry's rabbitbrush shrubland                               | CEGL003040 | G3G4SU   | BR                 | CA, NV?                         |              | Sawyer and Keeler-Wolf 1995; Barbour and Major 1988  |
| <i>Eriogonum douglasii</i> / <i>Poa secunda</i>  | Douglas buckwheat / Sandberg bluegrass dwarf-shrub scabland | CEGL001785 | G3S3     | BM, CP             | ID, WA                          |              | Daubenmire 1970; Johnson and Simon 1987: 148   |
| <i>Eriogonum microthecum</i> - <i>Physaria oregana</i>   | buckwheat - Oregon bladderpod scabland                      | CEGL001737 | G2S2     | BM                 | ID, WA                          |              | Daubenmire 1970; Johnson and Simon 1987: 205   |
| <i>Eriogonum sphaerocephalum</i> / <i>Poa secunda</i> dwarf-shrub grassland                                    | rock Buckwheat / Sandberg bluegrass dwarf-shrub grassland   | CEGL001448 | G3S3     | BM, BR, CP, EC     | ID, WA                          |              | Daubenmire and Daubenmire 1968; Daubenmire 1970  |
| <i>Eriogonum strictum</i> / <i>Poa secunda</i>   | strict buckwheat / Sandberg bluegrass scabland              | CEGL001788 | G4S4     | BM, CP             | CA?, ID                         |              | Johnson and Simon 1987: 152  |
| <i>Eryngium petiolatum</i> - <i>Grindelia nana</i>   | coyote-thistle - low gumweed vernal pool                    | CEGL003345 | G1S1     | KM                 |                                 | VP           | Lippert and Jameson 1964: 193  |
| <i>Eryngium petiolatum</i> - <i>Lasthenia glaberrima</i>   | coyote-thistle - smooth lasthenia vernal pool               | CEGL003458 | G1S1     | KM, WV             |                                 | VP           | Alverson 1990; : Appendix 3 p 10   |
| <i>Eryngium petiolatum</i> - <i>Navarretia leucocephala</i> ssp. <i>leucocephala</i> Vernal Pool [Provisional] | Coyote-thistle - white flowered navarretia                  | OR1077     | G1S1     | KM                 | CA                              | VP           | Borgias 2004: Appendix 3 p 10  |
| <i>Erythranthe guttata</i> - ( <i>Mimulus</i> spp.) seep or herbaceous riparian                                | seep monkeyflower - (monkeyflower species) seep             | CEGL005305 | G3S3     | WC                 | CA, CO, UT                      | HR           | Tendick et al. 2011b; Smith 1998b; Sawyer et al. 2009; Potter 2005; Padgett et al. 1989; Klein et al. 2007; Kittel et al. 2012a; Diaz and Mellen 1996; McCain et al. 2014: 266 |
| <i>Erythranthe guttata</i> Wet Herbaceous Riparian [Provisional]   | Yellow monkeyflower   | OR1079     | G3S2     | WC                 |                                 | HR           | McCain 2004: 43, 44  |
| <i>Euthamia occidentalis</i>   | western goldenrod strand                                    | CEGL003328 | G3S3     | WV                 | ID, WA                          | FM           | Christy and Putera 1993: 41; Kunze 1994: 49; Christy 2004: 119   |
| <i>Festuca brachyphylla</i>  | sheep fescue subalpine grassland                            | CEGL001797 | G4?S3    | BM, BR             | CA?, CO, ID, UT, WA             |              | Douglas and Bliss 1977: 128  |
| <i>Festuca brachyphylla</i> - <i>Trisetum spicatum</i> alpine turf   | sheep fescue - spike oatgrass alpine turf                   | CEGL001896 | G3?S4    | BM                 | CO, WY                          |              | Tweit and Houston 1980; Salas et al. 2010b   |

| Scientific Name   | Common Name  | ELCODE     | G/S Rank | Ecoregions     | W S & P         | Wetland Type | References   |
|---|--|------------|----------|----------------|-----------------|--------------|--|
| <i>Festuca campestris</i> - ( <i>Festuca idahoensis</i> ) - <i>Achnatherum richardsonii</i> grassland | Rough fescue - (Idaho fescue ) - Richardson's needlegrass grassland          | CEGL005869 | G2G3SU   | BM             | ID?, MT, WA?    |              | Willoughby et al. 1998; Reid et al. 2004; Mueggler and Stewart 1980; Lynch 1955; Lesica 2002; Koterba and Habeck 1971; Kartesz 1999; Jaques 1976; Hop et al. 2007; Hitchcock et al. 1977a; Hitchcock et al. 1969; Hitchcock et al. 1961; Hitchcock et al. 1959; Hitchcock et al. 1955; Dorn 1984; Cronquist et al. 1977; Aiken et al. 1996; Aiken and Darbyshire 1990  |
| <i>Festuca campestris</i> - <i>Festuca idahoensis</i> - <i>Geranium viscosissimum</i> grassland       | Rough fescue - Idaho fescue - Sticky Purple <i>Geranium</i> grassland        | CEGL005870 | G3?SU    | BM             | AB, MT, WA?     |              | Reid et al. 2004; Mueggler and Stewart 1980; Lesica 2002; Kartesz 1999; Hop et al. 2007; Hitchcock et al. 1977a; Dorn 1984; Cronquist et al. 1977; Aiken et al. 1996; Aiken and Darbyshire 1990  |
| <i>Festuca campestris</i> - <i>Festuca idahoensis</i> grassland                                       | rough fescue - Idaho fescue grassland  | CEGL005875 | G3S3     | BM, BR         | AB, ID, MT, WA  |              | Hall 1973: 45; Willoughby et al. 1998; Willoughby 1997; Willms et al. 1985; Willms and Fraser 1992; Tisdale and McLean 1957; Tisdale and Bramble-Brodahl 1983; Tisdale 1982; Tisdale 1979; Tisdale 1947; Reid et al. 2004; Mueggler and Stewart 1980; McLean 1970; Lynch 1955; Lesica 2002; Koterba and Habeck 1971; Jaques 1976; Hop et al. 2007; Hodgkinson and Young 1973; Hitchcock et al. 1977a; Dorn 1984; Daubenmire 1970; Cronquist et al. 1977; Cooper 2003; Aiken et al. 1996; Aiken and Darbyshire 1990 |
| <i>Festuca idahoensis</i> - ( <i>Hieraceum cynoglossoides</i> )                                       | Idaho fescue - (houndstongue hawkweed)                                       | CEGL001619 | G1G2S2   | CP, EC         | WA              |              | Daubenmire 1970; Reid et al. 1994  |
| <i>Festuca idahoensis</i> - ( <i>Koeleria macrantha</i> )   | Idaho fescue - (prairie junegrass)   | CEGL001620 | G3Q3S2   | BM, CP         | CA?, ID, WA     |              | Poulton 1955: 115; Tisdale 1979: 6; Johnson and Simon 1987: 33, 39, 44, 51   |
| <i>Festuca idahoensis</i> - ( <i>Symphoricarpos albus</i> )   | Idaho fescue - (common snowberry)  | CEGL001509 | G2S2     | BM, CP         | ID?, WA         |              | Daubenmire 1970; Johnson and Simon 1987: 50, 68  |
| <i>Festuca idahoensis</i> - <i>Carex hoodii</i>   | Idaho fescue - Hood sedge  | CEGL001609 | G3G4S3   | BM             | NV, UT?         |              | Johnson and Simon 1987: 80   |
| <i>Festuca idahoensis</i> - <i>Eriogonum heracleoides</i>   | Idaho fescue - Wyeth buckwheat   | CEGL001616 | G3S3     | BM             | WA              |              | Ganskopp 1979; Daubenmire 1970   |
| <i>Festuca idahoensis</i> subalpine grassland   | Idaho fescue subalpine grassland   | CEGL001897 | G4S3     | BM, BR         | CA?, CO, MT, WA |              | Hall 1973: 45; Erixson et al. 2011b  |
| <i>Festuca roemeri</i> - <i>Sidalcea virgata</i>  | Roemer fescue valley prairie   | CEGL001744 | G1S1     | WV             |                 |              | Magee 1985; Macdonald 1989; Habeck 1962; Habeck 1961; Alverson 1990  |
| <i>Festuca rubra</i> - <i>Armeria maritima</i> coastal headland grassland                             | red fescue - sea-pink coastal headland grassland                             | CEGL001567 | G2S2     | CR             | CA, WA          |              | Wiedemann 1966; Wiedemann 1984; Schirokauer et al. 2003; Sawyer and Keeler-Wolf 1995; Rocchio et al. 2012; Alpert 1984   |
| <i>Festuca rubra</i> - <i>Danthonia californica</i>   | red fescue - California oatgrass south coast headland or hillslope grassland | CEGL001597 | G2S2     | CR             | CA              |              | Sawyer and Keeler-Wolf 1995; Reid et al. 1994; Holland 1986b; Barbour and Major 1988   |
| <i>Festuca rubra</i> dune grasslands  | red fescue stabilized sand dunes   | CEGL001774 | G1S1     | CR             | WA              |              | Christy et al. 1998: 94, 98; Pickart 1987; Kunze 1984; Copass and Ramm-Granberg 2016a  |
| <i>Festuca viridula</i> - <i>Carex hoodii</i>   | green fescue - Hood sedge  | CEGL001596 | G3S3     | BM             | CA?, ID?, WA    |              | Cole 1982: 39; Johnson and Simon 1987: 20  |
| <i>Festuca viridula</i> - <i>Lupinus latifolius</i> meadow  | greenleaf fescue - broadleaf lupine meadow                                   | CEGL001635 | G4S4     | BM, BR, WC     | ID?, WA         |              | Reid et al. 1980; Layser 1980; Johnson and Simon 1987; Johnson and Simon 1985; Henderson and Peter 1982; Henderson 1973; Hamann 1972; Hall 1967; Douglas and Bliss 1977; Daubenmire 1981   |
| <i>Festuca viridula</i> - <i>Lupinus laxiflorus</i>   | green fescue - spurred lupine  | CEGL001634 | G3Q3S3   | BM             | ID?, WA         |              | Johnson and Simon 1987: 24; Johnson and Swanson 2005   |
| <i>Fontinalis</i> ( <i>antipyretica</i> , <i>neomexicana</i> ) Nonvascular Aquatic Vegetation         | Fountain moss  | CEGL003304 | G5S5     | CR, EC, WC, WV | WA              | AB           | Seyer 1979: 45, 46; Viereck et al. 1992: 209; Christy 2004: 152  |
| <i>Fraxinus latifolia</i> - ( <i>Populus trichocarpa</i> ) / <i>Cornus sericea</i>                    | Oregon ash - (black cottonwood) / creek dogwood                              | CEGL003390 | G4S4     | CR, WV         | WA              | FW           | Smith and Smith 1976: 115, 159, 183; Christy and Putera 1993: 41; Kunze 1994: 52; Titus et al. 1996  |
| <i>Fraxinus latifolia</i> - <i>Populus trichocarpa</i> / <i>Acer circinatum</i>                       | Oregon ash - black cottonwood / vine maple                                   | CEGL003404 | G3S3     | WV             | WA?             | FW           | Titus et al. 1996; McCain 2004: 267  |

| Scientific Name  | Common Name  | ELCODE     | G/S Rank | Ecoregions         | W S & P                 | Wetland Type | References  |
|--|--|------------|----------|--------------------|-------------------------|--------------|---|
| Fraxinus latifolia - Populus trichocarpa / Corylus cornuta - Physocarpus capitatus | Oregon ash - black cottonwood / hazelnut - Pacific ninebark    | CEGL003364 | G3S3     | WV                 | WA                      | FW           | Titus et al. 1996; McCain 2004: 257   |
| Fraxinus latifolia - Populus trichocarpa / Rubus spectabilis                       | Oregon ash - black cottonwood / salmonberry                    | CEGL003405 | G2S2     | WV                 | WA?                     | FW           | Titus et al. 1996; McCain 2004: 271   |
| Fraxinus latifolia - Populus trichocarpa / Symphoricarpos albus                    | Oregon ash - black cottonwood / snowberry                      | CEGL000641 | G3S3     | CR, WV             | WA                      | FW           | Smith and Smith 1976: 165; Heinitz 1982: 20; Frenkel and Heinitz 1987: 208; Kunze 1994: 33, 53; Titus et al. 1996   |
| Fraxinus latifolia / Carex aquatilis var. aquatilis Riparian Forest [Provisional]  | Oregon ash / water sedge                                       | OR1080     | G1S1     | WV                 |                         | FW           | Christy 2004: 23  |
| Fraxinus latifolia / Carex leptopoda - Urtica dioica                               | Oregon ash / Dewey sedge - stinging nettle                     | CEGL003365 | G1S1     | WV                 | WA                      | FW           | Christy and Putera 1993: 41; Kunze 1994: 52; Titus et al. 1996; Christy 2004: 24  |
| Fraxinus latifolia / Carex obnupta   | Oregon ash / slough sedge                                      | CEGL000640 | G4S4     | WV                 | WA                      | FW           | Heinitz 1982: 20; Marshall 1985: 142; Frenkel and Heinitz 1987: 208; Kunze 1994: 33; Titus et al. 1996; Christy 2004: 25; Murray 2000: 44   |
| Fraxinus latifolia / Juncus patens   | Oregon ash / spreading rush                                    | CEGL003391 | G2S2     | KM, WV             | WA?                     | FW           | Titus and Christy 1996b   |
| Fraxinus latifolia / Spiraea douglasii   | Oregon ash / hardhack  | CEGL003392 | G3S3     | WV                 | WA                      | FW           | Titus et al. 1996; Christy 2004: 26   |
| Fraxinus latifolia / Symphoricarpos albus  | Oregon ash / common snowberry                                  | CEGL003393 | G4S4     | KM, WV             | WA                      | FW           | Heinitz 1982: 20; Frenkel and Heinitz 1987: 208; Kunze 1994: 33; Titus et al. 1996; Christy 2004: 27  |
| Gaultheria shallon - Vaccinium ovatum / Pteridium aquilinum                        | salal - California huckleberry / western brackenfern shrubland | CEGL000972 | G3S3     | CR                 | CA?, WA                 |              | Wiedemann 1966; Kumler 1969: 700; Wiedemann 1984  |
| Glossopetalon spinescens var. aridum / Pseudoroegneria spicata                     | spiny greenbush / bluebunch wheatgrass                         | CEGL001100 | G4S3     | BM, BR             | ID                      |              | Johnson and Simon 1987: 195   |
| Glyceria borealis  | northern mannagrass marsh                                      | CEGL001569 | G4S4     | BM, BR             | CO, ID, MT, NM, WA, WY? | FM           | Boss 1983: 146; Sanville et al. 1986: 127; Manning and Padgett 1991: 452; Viereck et al. 1992: 182; Kovalchik 1993: 179; Titus et al. 1998; Titus and Christy 1996a; Crowe et al. 2004: 64                          |
| Glyceria grandis   | American mannagrass marsh                                      | CEGL003429 | G2S2     | BR                 | CO, ID, MT, WA          | FM           | Evenden 1990: 45  |
| Glyceria striata   | fowl mannagrass marsh  | CEGL000219 | G3S3     | BM, EC, WC         | WA                      | FM           | Kauffman 1982: 59; Kauffman et al. 1985: 16; Manning and Padgett 1991: 452; Crowe and Clausnitzer 1997: 208; Titus and Christy 1996a; Titus et al. 1998; Murray 2000: 19; Christy 2004: 120; Crowe et al. 2004: 147 |
| Gratiola ebracteata Vernal Pool [Provisional]                                      | Bractless hedge-hyssop - bracted popcorn flower                | OR1081     | G2S2     | KM                 | CA?                     | VP           | Titus and Christy 2017: 6   |
| Grayia spinosa / Achnatherum hymenoides  | spiny hopsage / bunchgrass                                     | CEGL001350 | G4S3     | BR                 | CA?, CO, NV, WY         |              | Easterly and Salstrom 1997: 28  |
| Grayia spinosa / Achnatherum thurberianum shrubland                                | spiny hopsage / Thurber's needlegrass shrubland                | CEGL002681 | G2G3S1   | BR                 | CA?, NV                 |              | Roberts 1979; Price and Seibert 1981  |
| Hastingsia bracteosa Fen [Provisional]   | Purple-flowered rush-lily                                      | OR1082     | G2S2     | KM                 |                         | SF           | Titus and Christy 2017: 3   |
| Hesperocyparis macnabiana forest   | Macnab's cypress   | CEGL003043 | G2S1     | KM                 | CA                      |              | Vogl et al. 1988; Sawyer and Keeler-Wolf 1995; Keeler-Wolf 1990a; Griffin and Critchfield 1972; Cheatham and Haller 1975  |
| Hesperostipa comata - Poa secunda  | needle-and-thread - Sandberg bluegrass                         | CEGL001704 | G1S1     | CP                 | BC?, ID, MT, NV, WA     |              | Poulton 1955; Daubenmire 1970   |
| Hippuris vulgaris  | common mares-tail marsh  | CEGL003315 | G5S3     | BM, BR, CR, EC, WV | AK, CO, WA              | FM           | Viereck et al. 1992: 205; Kunze 1994: 22; Christy and Brophy 2002; Christy 2004: 121  |

| Scientific Name   | Common Name   | ELCODE     | G/S Rank | Ecoregions | W S & P  | Wetland Type | References  |
|---|---|------------|----------|------------|--|--------------|---|
| <i>Hordeum brachyantherum</i> lowland wet meadow  | meadow barley lowland wet meadow  | CEGL003430 | G2S2     | ALL        | CA, ID, NV, WY                                   | WM           | Smith 1998b; Moir and Mika 1972; Manning and Padgett 1995; Kittel et al. 2012a; Jankovsky-Jones et al. 2001; Hansen and Hall 2002; Friesen et al. 2010; Evens and San 2004  |
| <i>Hydrocotyle ranunculoides</i> aquatic bed  | floating water-pennywort marsh  | OR0015     | G5S3     | CR         | CA?, WA?   | FM           | McCain and Christy 2005: 301; Christy 2004: 122   |
| <i>Hypericum anagalloides</i> Fen [Provisional]   | Bog St. John's wort   | OR1084     | G5S3     | CR, WC     |  | FE           | Murray 2000: 20   |
| <i>Isoetes bolanderi</i> Vernal Pool [Provisional]  | Bolander's quillwort  | OR1085     | G1S1     | KM         |  | VP           | Titus and Christy 2017: 6   |
| <i>Isoetes nuttallii</i> - <i>Plagiobothrys bracteatus</i> Vernal Pool [Provisional]                          | Nuttall's quillwort - bracted popcorn flower                              | OR1086     | G2S2     | KM         |  | VP           | Titus and Christy 2017: 6   |
| <i>Isoetes nuttallii</i> wet meadow   | Nuttall quillwort bed   | CEGL003343 | G3S3     | WV         | BC?, WA?   | SM           | Titus et al. 1996; Christy 2004: 123  |
| <i>Juncus balticus</i> - <i>Bistorta bistortoides</i> Wet Meadow [Provisional]                                | Baltic rush - American bistort  | OR1087     | G4S4     | EC, WC     |  | FE, WM       | Murray 2000: 21; Christy 2004: 124  |
| <i>Juncus balticus</i> - <i>Carex obnupta</i> Brackish Marsh [Provisional]                                    | Baltic rush - slough sedge  | OR1088     | G4S4     | CR         |  | SM           | Taylor 1980: 57; Kunze 1994: 22   |
| <i>Juncus balticus</i> Wet Meadow   | Baltic rush marsh   | CEGL001838 | G5S5     | ALL        | AB, AZ, BC, CA, CO, ID, MT, NM, NV, UT, WA, WY + | FE, WM       | Volland 1976: 20; Taylor and Frenkel 1979: 60; Taylor 1980: 57; Padgett 1981: 73; Henderson and McAllister 1983: 2; Kovalchik 1987: 138; Evenden 1990: 47; Padgett et al. 1989: 111; Manning and Padgett 1991: 436; Kunze 1994: 22; Crowe and Clausnitzer 1997; Taylor and Frenkel 1979: 60; Taylor 1980: 57; Kunze 1994: 22; Christy 2004: 109; Crowe et al. 2004: 129, 145; Wells 2006: 151; Christy 2013: 35 |
| <i>Juncus drummondii</i> - <i>Micranthes tolmiei</i> Alpine Meadow [Provisional]                              | Drummond's rush - - Tolmie saxifrage                                      | OR1089     | G4S3     | EC, WC     |  | SD           | McCain et al. 2014: 263   |
| <i>Juncus effusus</i> Pacific Coast Marsh   | lamp rush Pacific Coast wet meadow  | CEGL003317 | G5S3     | CR, KM, WV | CA, WA   | FM           | Titus 1996; Schirokauer et al. 2003; Rocchio et al. 2012; Murray 2000; McCain and Christy 2005; Keeler-Wolf and Evens 2006; Kagan et al. 2012; Jankovsky-Jones et al. 1999; Hickman 1993; Christy 2004: 125   |
| <i>Juncus ensifolius</i> Marsh [Provisional]  | Dagger-leaf rush  | OR1101     | G4S4     | KM         |  | FM           | Titus and Christy 2017: 4   |
| <i>Juncus falcatus</i> - <i>Trifolium wormskjoldii</i> Wet Meadow   | Sickle-leaved rush - springbank clover                                    | CEGL001570 | G4S3     | CR         | WA?  | SM           | Kunze 1994:85; Christy et al. 1998: 102   |
| <i>Juncus nevadensis</i>  | Nevada rush marsh   | OR0016     | G4S4     | EC         | CA?, NV  | FM, WM       | Kovalchik 1987: 138; Manning and Padgett 1991: 453; Titus and Christy 1996a; Titus et al. 1998; Christy 2004: 126; Crowe et al. 2004: 131   |
| <i>Juniperus occidentalis</i> / <i>Achnatherum thurberiana</i>  | western juniper / Thurber's needlegrass                                   | CEGL002635 | G2S2     | BM, BR     | CA?, NV?   |              | Youtie and Winward 1977   |
| <i>Juniperus occidentalis</i> / <i>Artemisia arbuscula</i> / <i>Danthonia unispicata</i> - <i>Poa secunda</i> | western juniper / low sagebrush / onespikes oatgrass - Sandberg bluegrass | CEGL001715 | G3S3     | BM, BR, CP | CA?  |              | Johnson and Clausnitzer 1992: 130   |
| <i>Juniperus occidentalis</i> / <i>Artemisia arbuscula</i> / <i>Festuca idahoensis</i>                        | western juniper / low sagebrush / Idaho fescue                            | CEGL001716 | G3?S3    | BM, BR, EC | CA, ID   |              | Eckert 1957: 135; Hall 1973: 18; Hopkins 1979a: 16  |
| <i>Juniperus occidentalis</i> / <i>Artemisia arbuscula</i> / <i>Pseudoroegneria spicata</i>                   | western juniper / low sagebrush / bluebunch wheatgrass                    | CEGL001717 | G3G4S4   | BM, BR, CP | CA?  |              | Eckert 1957: 153; Hall 1973: 18; Johnson and Clausnitzer 1992: 130  |
| <i>Juniperus occidentalis</i> / <i>Artemisia rigida</i> / <i>Poa secunda</i>                                  | western juniper / rigid sagebrush / Sandberg bluegrass                    | CEGL001718 | G2G3S3   | BM, BR, CP |  |              | Hall 1973: 17; Johnson and Clausnitzer 1992: 130  |
| <i>Juniperus occidentalis</i> / <i>Artemisia tridentata</i> - <i>Purshia tridentata</i>                       | western juniper / big sagebrush - bitterbrush / bunchgrass                | CEGL001722 | G4QS4    | BM, BR, EC | CA?  |              | Driscoll 1964a: 26  |
| <i>Juniperus occidentalis</i> / <i>Artemisia tridentata</i> / <i>Carex filifolia</i>                          | western juniper / big sagebrush / threadleaf sedge                        | CEGL001719 | G1S1     | BM         |  |              | Franklin et al. 1972  |
| <i>Juniperus occidentalis</i> / <i>Artemisia tridentata</i> / <i>Festuca idahoensis</i>                       | western juniper / big sagebrush / Idaho fescue                            | CEGL001720 | G3S3     | BM, BR, EC | CA?, WA  |              | Eckert 1957: 109; Driscoll 1964a: 14; Hall 1973: 19; Hopkins 1979a; Dealy et al. 1981: 25   |

| Scientific Name  | Common Name  | ELCODE     | G/S Rank | Ecoregions     | W S & P              | Wetland Type | References  |
|--|--|------------|----------|----------------|----------------------|--------------|---|
| <i>Juniperus occidentalis</i> / <i>Artemisia tridentata</i> / <i>Pseudoroegneria spicata</i>                           | western juniper / big sagebrush / bluebunch wheatgrass                         | CEGL001721 | G3G4S3   | BM, BR, EC     | CA?, WA              |              | Eckert 1957: 69; Driscoll 1964a: 20, 22, 30; Hall 1973: 19; Hopkins 1979a; Dealy et al. 1981: 25  |
| <i>Juniperus occidentalis</i> / <i>Artemisia tridentata</i> var. <i>vaseyana</i>                                       | western juniper / mountain big sagebrush                                       | CEGL000723 | G4S4     | BM, EC         | CA, ID               |              | Johnson and Clausnitzer 1992: 129   |
| <i>Juniperus occidentalis</i> / <i>Cercocarpus ledifolius</i> - <i>Symphoricarpos oreophilus</i>                       | western juniper / curlleaf mountain mahogany - mountain snowberry              | CEGL000726 | G2S2     | BR             | ID, NV?              |              | Dealy 1975: 91-111; Dealy et al. 1981: 22   |
| <i>Juniperus occidentalis</i> / <i>Cercocarpus ledifolius</i> / <i>Carex geyeri</i>                                    | western juniper / curlleaf mountain mahogany / elk sedge                       | CEGL000724 | G2S2     | BM, BR         | CA?                  |              | Dealy 1975: 91; Johnson and Clausnitzer 1992: 129   |
| <i>Juniperus occidentalis</i> / <i>Cercocarpus ledifolius</i> / <i>Leymus cinereus</i><br>wooded grassland             | western Juniper / curl-leaf Mountain-mahogany / basin wildrye wooded grassland | CEGL001723 | G1QS1    | BR             |                      |              | Dealy 1975  |
| <i>Juniperus occidentalis</i> / <i>Cercocarpus ledifolius</i> / <i>Pseudoroegneria spicata</i>                         | western juniper / curlleaf mountain - mahogany rimrock & canyons               | CEGL000725 | G4S4     | BM, BR         | CA, NV?              |              | Dealy 1975: 85; Johnson and Clausnitzer 1992: 129   |
| <i>Juniperus occidentalis</i> / <i>Festuca idahoensis</i>  | western juniper / Idaho fescue   | CEGL001724 | G2S2     | BM, EC         | CA?, ID, WA          |              | Driscoll 1964a: 16, 24, 28; Hall 1973: 16; Johnson and Simon 1987: 183; Johnson and Clausnitzer 1992: 127; Hall 1973: 16; Johnson and Clausnitzer 1992: 127   |
| <i>Juniperus occidentalis</i> / <i>Poa secunda</i> - <i>Achnatherum occidentale</i>                                    | western juniper / Sandberg bluegrass - western needlegrass                     | CEGL001727 | GUS1     | BM             |                      |              | Kagan 1988; Copeland 1980b  |
| <i>Juniperus occidentalis</i> / <i>Pseudoroegneria spicata</i>   | western juniper / bluebunch wheatgrass   | CEGL001728 | G3S3     | BM, BR, CP, EC | CA?, ID, NV?, WA     |              | Driscoll 1964a: 24; Hall 1973: 16; Johnson and Clausnitzer 1992: 127; Johnson and Simon 1987: 126   |
| <i>Juniperus occidentalis</i> / <i>Purshia tridentata</i> / <i>Festuca idahoensis</i> - <i>Pseudoroegneria spicata</i> | western juniper / bitterbrush / Idaho fescue - bluebunch wheatgrass            | CEGL002622 | G3S3     | BM, EC         | CA?                  |              | Driscoll 1964a: 18, 26; Segura-Bustamante 1970: 143; Volland 1976: 31; Johnson and Clausnitzer 1992: 125  |
| <i>Kalmia microphylla</i> / <i>Carex aquatilis</i> var. <i>dives</i> Wet Shrubland [Provisional]                       | Alpine laurel / Sitka sedge  | OR1103     | G3S2     | WC             |                      | FE           | Christy 2004: 41  |
| <i>Kalmia microphylla</i> / <i>Carex nigricans</i>   | bog laurel / black alpine sedge shrub swamp                                    | CEGL001402 | G3S2     | BM, BR         | AB?, BC?, CA, MT, WA | SS           | Cole 1977b: 104; Hamann 1972; Kovalchik 1993: 102; Crowe et al. 2004: 264; Wells 2006: 92   |
| <i>Kalmia microphylla</i> / <i>Carex scopulorum</i>  | bog laurel / Holm sedge shrub swamp  | CEGL001403 | G3S3     | BM             | CA?, ID, MT          | SS           | Cole 1977b: 104   |
| <i>Krascheninnikovia lanata</i> / <i>Poa secunda</i> - <i>Elymus elymoides</i>   | winterfat / Sandberg bluegrass - bottlebrush squirreltail flat                 | CEGL001326 | G3S2     | BR             | CO, ID, NV, WA, WY   |              | Daubenmire 1970   |
| <i>Larix occidentalis</i> / <i>Clintonia uniflora</i> - <i>Xerophyllum tenax</i> forest                                | western Larch / bride's bonnet - common beargrass                              | CEGL005881 | GNRS1S2  | BM             | ID, MT, WA           |              | Williams et al. 1995; Reid et al. 2004; Pfister et al. 1977; Lillybridge et al. 1995; Leavell 2000; Johnson and Simon 1987; Johnson and Clausnitzer 1992; Hop et al. 2007; Daubenmire and Daubenmire 1968; Cooper et al. 1987                     |
| <i>Larix occidentalis</i> / <i>Clintonia uniflora</i> forest   | western Larch / bride's bonnet   | CEGL005880 | GNRS1S2  | BM             | ID, MT, WA           |              | Williams et al. 1995; Steele et al. 1981; Reid et al. 2004; Pfister et al. 1977; Lillybridge et al. 1995; Leavell 2000; Johnson and Simon 1987; Johnson and Clausnitzer 1992; Hop et al. 2007; Daubenmire and Daubenmire 1968; Cooper et al. 1987 |
| <i>Lemna minor</i>   | duckweed bed   | CEGL003305 | G5S5     | ALL            | WA                   | AB           | Titus et al. 1996; Rodwell 1995a; Murray 2000: 22; McCain and Christy 2005; Kunze 1994; Kagan et al. 2012; Christy 2004: 127; Buck-Diaz et al. 2012   |

| Scientific Name   | Common Name   | ELCODE     | G/S Rank | Ecoregions     | W S & P                                  | Wetland Type | References   |
|---|---|------------|----------|----------------|--|--------------|--|
| Lemna spp. western North American aquatic vegetation                          | duckweed species western North America aquatic vegetation | CEGL005450 | G5S4     | All            | AZ, CA, CO, ID, MT, NM, NV, UT, WA, WY + | AB           | Windell et al. 1986; Sawyer and Keeler-Wolf 1995; Owns et al. 2004; Fuller 1930  |
| Lepidium davisii Playa [Provisional]  | Davis pepperweed  | OR1104     | G3S1     | BR             |  | AW           | Moseley 1995; Meinke 2014  |
| Leymus cinereus   | basin wildrye bottomlands                                 | CEGL001480 | G1S1     | BM, BR, CP, EC | CA, ID, WA                               | AW           | Daubenmire 1970; Day and Wright 1985: 4; Johnson and Simon 1987: 210; Crowe et al. 2004: 151; Wells 2006: 148  |
| Leymus cinereus - Distichlis spicata  | giant wildrye - saltgrass alkali grassland                | CEGL001481 | G3S3     | BR, CP         | CA, CO, ID, NV, UT, WA                   | AW           | Poulton 1955: 70; Daubenmire 1970: 50; Crawford 2003; Coles et al. 2008a   |
| Leymus cinereus alkaline wet meadow   | basin wildrye alkaline wet meadow                         | CEGL001479 | G3S1     | BR, CP         | CA, CO, ID, MT, NV, UT, WA, WY           | AW           | Walker and Brotherson 1982; Vories 1974; Thomas et al. 2009b; Thilenius et al. 1995; Tendick et al. 2010; Stoddart 1941; Schulz and Hall 2011; Peterson 2008; Mueggler and Stewart 1980; Knight et al. 1976; Keammerer 1977; Jones and Ogle 2000; Johnson and Simon 1987; Johnson and Simon 1985; Friesen et al. 2010; Ferchau 1973; Erixson et al. 2011b; Erixson and Cogan 2012a; DiPaolo et al. 2015; DeVelice 1992; Dean 1960; Daubenmire 1988; Daubenmire 1970; Crowe et al. 2004; Coles et al. 2010; Coles et al. 2008a; Cogan et al. 2012; Bell et al. 2009; Baker 1984a; Baker 1982b; Aldous and Shantz 1924 |
| Leymus mollis ssp. mollis - Lathyrus japonicus                                | unstabilized coastal dune wildrye                         | CEGL001796 | G2S1     | CR             | BC, CA, WA                               |              | Wiedemann 1966; Christy et al. 1998: 92; Stumpf et al. 2017; Sawyer et al. 2009; Rocchio et al. 2012; Pickart and Sawyer 1998; Pickart and Barbour 2007; Kumler 1969; Copass and Ramm-Granberg 2016a   |
| Leymus triticoides - Poa secunda ssp. juncifolia                              | creeping wildrye - alkali bluegrass playa                 | CEGL001572 | G2S2     | BR             | CA, NV                                   | AW           | Easterday and Mamone 1980: 14; Peterson 2008; Odion et al. 1992; Christy 2013  |
| Leymus triticoides Wet Meadow   | Creeping wildrye  | CEGL001571 | G2S2     | BR             |  | AW           | Christy 2013: 37; Sawyer et al. 2009; Holstein 2001; Buck-Diaz et al. 2012   |
| Lilaeopsis occidentalis   | lilaeopsis marsh  | CEGL003329 | G3S3     | CR, WV         | BC?, WA                                  | FM           | Christy and Putera 1993: 40; Kunze 1994: 56, 97; Christy 2004: 128   |
| Lomatium martindalei rock garden  | Martindale lomatium rock garden                           | CEGL001972 | G2S2     | CR             | WA?                                      |              | Kagan et al. 2012; Frenkel and Copeland 1979; Chappell 2006a; Aldrich 1972; Alaback and Frenkel 1978   |
| Lonicera involucrata / Potentilla anserina Brackish Shrub Swamp [Provisional] | Black twinberry / Pacific silverweed                      | OR1106     | G3S2     | CR             |  | SM           | Brophy 2007  |
| Ludwigia palustris - Persicaria hydropiperoides                               | water purslane - waterpepper marsh                        | CEGL003330 | G3S3     | CR, KM, WV     | WA                                       | FM           | Christy and Putera 1993: 40; Kunze 1994: 46; Titus et al. 1996; Christy et al. 1998: 131; Christy 2004: 129  |
| Luetkea pectinata - Micranthes tolmiei Alpine Meadow                          | partridgefoot - Tolmie saxifrage                          | CEGL001918 | G5S4     | EC, WC         | BC, CA, WA                               | SD           | Douglas 1972: 153; Schreiner 1994; Henderson 1974; Henderson 1973; Douglas 1972; Crawford et al. 2009  |
| Lupinus latifolius ssp. subalpinus - Carex spectabilis alpine meadow          | Cascade lupine - showy sedge alpine meadow                | CEGL001973 | G4S3     | BM, EC, WC     | BC?, WA                                  | WM           | Kovalchik 2001; Douglas and Bliss 1977; Crowe et al. 2004: 119; McCain et al. 2014: 202  |
| Lupinus littoralis dune community   | seashore lupine dunes                                     | CEGL001974 | G3S3     | CR             | WA                                       |              | Wiedemann 1966; Davidson 1967: 46; Christy et al. 1998: 130  |
| Lysichiton americanus - (Athyrum filix-femina) Marsh [Provisional]            | Skunk cabbage   | OR1107     | G4S4     | WV             |  | FM           | Diaz and Mellen 1996: 167; Murray 2000: 22   |
| Lysichiton americanus marsh   | skunk cabbage marsh                                       | CEGL003318 | G4S4     | EC, WC         | WA                                       | FM           | Diaz and Mellen 1996: 167; Titus et al. 1998   |

| Scientific Name  | Common Name   | ELCODE     | G/S Rank | Ecoregions             | W S & P                     | Wetland Type | References   |
|--|---|------------|----------|------------------------|-----------------------------|--------------|--|
| <i>Lysimachia maritima</i> - <i>Poa secunda</i> Rich Fen   | Sea-milkwort - Sandberg bluegrass                           | CEGL005661 | G3S2     | BR                     |                             | AW           | Christy 2016: 32; Carsey et al. 2003a; Cooper 1996   |
| <i>Malus fusca</i> - ( <i>Salix hookeriana</i> ) / <i>Carex obnupta</i> shrub swamp  | Oregon Crabapple - (dune willow) / slough sedge shrub swamp | CEGL003294 | G3S2     | CR                     | BC, WA                      | SS           | Sanville et al. 1986; Rocchio et al. 2012; Kunze 1994; Kagan et al. 2012; Copass and Ramm-Granberg 2016a; Christy et al. 1998; Christy and Putera 1993; Christy 2004; Christy 2001a; Boss 1983   |
| <i>Malus fusca</i> / <i>Carex obnupta</i>  | crabapple / slough sedge shrub swamp                        | CEGL003385 | G3S3     | CR, WV                 | BC?, WA                     | SS           | Kunze 1994: 34; Christy 2004: 49; MacKenzie and Moran 2004   |
| <i>Marsilea oligospora</i> - <i>Eleocharis acicularis</i> Vernal Pool [Provisional]  | Pacific watercress - needle spikerush                       | OR1108     | G2S2     | EC                     |                             | VP           | Bjork 2002: 26   |
| <i>Menyanthes trifoliata</i>   | buckbean marsh  | CEGL003410 | G5S4     | BM, CR, EC, WC, WV     | AK, BC, CA, CO, WA, WY      | FE           | Viereck et al. 1992: 198; Shephard 1995: 197; Crowe and Clausnitzer 1997: 200; Titus et al. 1996; Titus et al. 1998; Christy 2001a: 38; Murray 2000: 23; Christy 2004: 130; Crowe et al. 2004: 61  |
| <i>Mertensia paniculata</i> - <i>Urtica dioica</i> ssp. <i>gracilis</i> Wet Meadow [Provisional]                           | Bluebell - northwest nettle                                 | OR1109     | G4S4     | BM                     |                             | WM           | Cole 1982: 17  |
| <i>Micranthes ferruginea</i> - <i>Camassia quamash</i> Wet Outcrop [Provisional]   | Rusty saxifrage - Common camas                              | OR1110     | G4S3     | CR, WC                 |                             | WP           | Glavich 2016: 44   |
| <i>Micranthes odontoloma</i> Wet Meadow  | Brook saxifrage   | CEGL001985 | G4S3     | BM, EC, WC             |                             | WM           | Crowe et al. 2004: 161; Carsey et al. 2003a; Diaz and Mellen 1996; Komarkova 1976; Kovalchik 2001  |
| <i>Muhlenbergia asperifolia</i> Wet Meadow   | Alkali muhly  | CEGL001779 | G3S2     | BR                     |                             | AW           | Christy 2013: 39; Carsey et al. 2003a; Kittel et al. 1999b; Bolen 1964   |
| <i>Myrica gale</i> / <i>Carex</i> ( <i>aquatilis</i> var. <i>dives</i> , <i>utriculata</i> ) fen                           | sweet gale / sedge fen                                      | CEGL003376 | G3S1     | CR                     | AK?, BC, WA?                | FE           | Viereck et al. 1992; Shephard 1995; McCain and Christy 2005; Kunze 1994; Christy 2001a; Boggs 2000; Murray 2000: 33; Christy 2004: 50  |
| <i>Myriophyllum hippuroides</i>  | western water-milfoil bed                                   | CEGL003331 | G3S2     | WV                     | BC, WA                      | AB           | Christy and Putera 1993: 39; Kunze 1994: 47, 57  |
| <i>Myriophyllum hippuroides</i> Aquatic Vegetation [Provisional]   | Western water-milfoil                                       | OR1111     | G3S2     | WV                     |                             | AB, FM       | Kunze 1994: 47, 57   |
| <i>Myriophyllum sibiricum</i>  | Siberian water-milfoil bed                                  | CEGL002000 | G4S3     | WC                     | AB, CO, WY?                 | AB           | Titus et al. 1996; Salas et al. 2010b; Reid et al. 2004; Owns et al. 2004; Johnson and Muller 1993a; Johnson 1941; Johnson 1939; Johnson 1936; Hop et al. 2007; Achuff et al. 2002   |
| <i>Navarretia intertexta</i> - <i>Polygonum polygaloides</i> ssp. <i>kelloggii</i> Vernal Pool [Provisional]               | Needle-leaf navarretia - Kellogg knotweed                   | OR1112     | G2S2     | BM, KM                 |                             | VP           | Johnson and Simon 1987: 224  |
| <i>Navarretia leucocephala</i> ssp. <i>leucocephala</i> Vernal Pool [Provisional]  | White flowered navarretia                                   | OR1113     | G2S2     | KM                     |                             | VP           | Borgias 2004: Appendix 3 p 10  |
| <i>Navarretia leucocephala</i> ssp. <i>minima</i> - <i>Polygonum polygaloides</i> ssp. <i>confertiflorum</i> [Provisional] | Least navarretia - closeflowered knotweed                   | OR1114     | G2S2     | EC                     |                             | VP           | Bjork 2002: 25   |
| <i>Nephrrophyllum crista-galli</i> Fen [Provisional]   | Deer cabbage  | OR1115     | G4S1     | WC                     |                             | FE           | Murray 2000: 19; Christy 2004: 131   |
| <i>Nuphar lutea</i> ssp. <i>polysepalum</i>  | pond-lily bed   | CEGL002001 | G5S5     | BM, BR, CR, EC, WC, WV | BC, CA, CO, ID, MT, WA, WY? | AB           | Seyer 1979: 46; Kovalchik 1993: 183; Viereck et al. 1992: 204; Kunze 1994: 23, 80; Rodwell 1995a: 48; Shephard 1995: 187; Christy et al. 1998: 134; Titus and Christy 1996a; Titus et al. 1998; Christy 2004: 132; Crowe et al. 2004: 62; Wells 2006: 156; Odion et al. 2013: 64 |
| <i>Oenanthe sarmentosa</i>   | water-parsley marsh   | CEGL003319 | G4S4     | CR, WV                 | WA                          | FM           | Frenkel et al. 1978: 99; Taylor and Frenkel 1979: 54; Taylor 1980: 51; Mitchell 1981: 114; Boss 1983: 107; Frenkel and Morlan 1990: 47; Titus et al. 1996; Christy 2004: 133; Murray 2000: 23; McCain 2004: 192  |
| <i>Oplopanax horridum</i> - ( <i>Rubus spectabilis</i> , <i>Ribes bracteosum</i> ) Wet Shrubland [Provisional]             | Devil's club - (salmonberry, stink currant)                 | OR1116     | G3S3     | CR, WC                 |                             | SS           | McCain 2004: 158, 214  |
| <i>Oxalis</i> - <i>Hydrophyllum tenuipes</i> - <i>Tolmiea menziesii</i> Herbaceous Riparian [Provisional]                  | Oxalis - Pacific waterleaf - piggyback plant                | OR1117     | G3S3     | CR, WC                 |                             | HR           | McCain 2004: 116, 196  |



| Scientific Name   | Common Name  | ELCODE     | G/S Rank | Ecoregions                     | W S & P                              | Wetland Type | References   |
|---|--|------------|----------|--------------------------------|--------------------------------------|--------------|--|
| <i>Paspalum distichum</i>   | knotgrass marsh  | CEGL003320 | G3S3     | CR, WV                         | CA?, WA                              | FM           | Christy and Putera 1993: 40; Kunze 1994: 47; Christy et al. 1998: 114; Christy 2004: 134   |
| <i>Persicaria amphibia</i> Marsh [Provisional]  | Water smartweed  | OR1118     | G5S3     | BR, WV                         |                                      | FM           | Christy 2004: 135  |
| <i>Persicaria lapathifolia</i> Marsh [Provisional]  | Curltop ladysthumb   | OR1119     | G3S2     | BR                             |                                      | FM           | Christy 2013: 41   |
| <i>Petasites frigidus</i> - <i>Equisetum arvense</i> Wet Herbaceous Riparian [Provisional]                      | Sweet coltsfoot - common horsetail                                       | OR1120     | G4S4     | WC                             |                                      | HR           | McCain 2004: 53  |
| <i>Petasites frigidus</i> - <i>Stachys cooleyae</i> Wet Herbaceous Riparian [Provisional]                       | Sweet coltsfoot - great betony   | OR1121     | G4S4     | WC                             |                                      | HR           | McCain 2004: 56  |
| <i>Phalaris arundinacea</i> western marsh   | reed canarygrass western marsh   | CEGL001474 | G5S4     | BM, BR, CP, CR, EC, KM, WC, WV | AB, CA, CO, ID, MT, NM, UT, WA, WY + | FM           | Willoughby et al. 2004; Von Loh et al. 2002; Von Loh 2000; Thompson and Hansen 2002; Tendick et al. 2017; Tendick et al. 2010; Stumpf et al. 2017; Stevens et al. 2015; Salas and Pucherelli 2002a; Reid et al. 2004; Owns et al. 2004; Muldavin et al. 2000a; MacKenzie and Moran 2004; Hop et al. 2007; Hansen et al. 1995; Hall and Hansen 1997; Erixson et al. 2011b; Erixson and Cogan 2012a; Crawford 2003; Crawford 2001; Copass and Ramm-Granberg 2016b; Cooper et al. 1995; Coles et al. 2010; Christy 2013; Carsey et al. 2003a; Buck-Diaz et al. 2012 |
| <i>Philadelphus lewisii</i> / <i>Symphoricarpos albus</i> wet shrubland   | Lewis' mock orange / common snowberry wet shrubland                      | CEGL000875 | G2S2     | BM, BR, CP                     | ID?, WA                              | SS           | Crowe et al. 2004; Crawford 2001   |
| <i>Philadelphus lewisii</i> talus   | mockorange talus   | CEGL001170 | G2S2     | BM, BR, CP, EC                 | ID, WA                               | SS           | Moseley 1998: 45; ORBIC unpubl. data; Crowe et al. 2004: 186   |
| <i>Phragmites australis</i>   | common reed marsh  | CEGL001475 | GNR53    | BM, BR, CP                     | AZ, CA, CO, ID, MT, NM, NV, UT, WY + | FM           | Myhre and Clements 1972: 4; Rodwell 1995a: 140   |
| <i>Phyllodoce empetriformis</i> - <i>Cassiope mertensiana</i>   | red mountain heath - Merten mountain heather                             | CEGL001398 | G5S4     | BM, EC, WC                     | CA, ID, WA                           |              | Douglas and Bliss 1977: 126, 127; del Moral 1979; Schreiner 1994; Hamann 1972; Edwards 1980; Crawford et al. 2009  |
| <i>Phyllodoce empetriformis</i> / <i>Vaccinium deliciosum</i> Alpine Dwarf-shrubland                            | Pink mountain heather / Cascade bilberry                                 | CEGL001407 | G4S3     | BM, EC, WC                     |                                      | SS           | Crowe et al. 2004: 265; Crawford et al. 2009; Douglas 1972; Hamann 1972; Henderson 1974; Henderson and Peter 1982; Kuramoto and Bliss 1970   |
| <i>Phyllodoce empetriformis</i> parkland  | red mountain heath parkland  | CEGL001404 | G5S5     | BM, EC, WC                     | BC?, CA?, WA                         |              | Kuramoto and Bliss 1970: 324; Douglas and Bliss 1977: 127; Cole 1977b: 112; Cole 1982: 19; Wells 2006: 94; McCain et al. 2014: 206, 215  |
| <i>Physocarpus malvaceus</i> - <i>Symphoricarpos albus</i>  | mallow ninebark - common snowberry                                       | CEGL001171 | G3S3     | BM, CP                         | ID, WA                               |              | Hall 1973: 23; Ganskopp 1979: 71; Johnson and Simon 1987: 177  |
| <i>Picea (engelmannii x glauca, engelmannii)</i> / <i>Carex disperma</i> Swamp Forest                           | Engelmann spruce / softleaf sedge  | OR1184     | G3S2     | BM, EC                         |                                      | FW           | Crowe et al. 2004: 431; Kovalchik 2001; Crowe and Clausnitzer 1997: 38, 46; Steele et al. 1983   |
| <i>Picea breweriana</i> - <i>Abies concolor</i> / <i>Chimaphila umbellata</i>                                   | Brewer spruce - white fir / prince's-pine                                | CEGL000050 | G2S1     | KM                             | CA                                   |              | Atzet and Wheeler 1984: 64   |
| <i>Picea breweriana</i> - <i>Abies concolor</i> / <i>Gaultheria ovatifolia</i> - <i>Orthilia secunda</i>        | Brewer spruce - white fir / salal / one-sided wintergreen                | CEGL000051 | G2S1     | KM                             | CA?                                  |              | Atzet and Wheeler 1984: 63   |
| <i>Picea breweriana</i> - <i>Abies concolor</i> / <i>Vaccinium membranaceum</i> / <i>Goodyera oblongifolia</i>  | Brewer spruce - white fir / thin-leaved blueberry / rattlesnake-plantain | CEGL000052 | G2S1     | KM                             | CA?                                  |              | Atzet and Wheeler 1984: 62   |
| <i>Picea breweriana</i> - <i>Chamaecyparis lawsoniana</i> - <i>Abies concolor</i> / <i>Quercus vaccinifolia</i> | Brewer spruce - Port Orford cedar - white fir / shrub oak                | CEGL000049 | G1S1     | KM                             | CA?                                  |              | Atzet and Wheeler 1984   |
| <i>Picea engelmannii</i> - ( <i>Abies lasiocarpa</i> ) / <i>Gymnocarpium dryopteris</i>                         | Engelmann spruce - (subalpine fir) / oak fern                            | CEGL002611 | GNRQSU   | EC                             | WA                                   |              | Kovalchik 1993: 54, 68   |
| <i>Picea engelmannii</i> / <i>Bromus vulgaris</i> Riparian Forest [Provisional]                                 | Engelmann spruce / Columbia brome  | OR1122     | G2S2     | BM                             |                                      | FW           | Crowe et al. 2004: 436   |

| Scientific Name  | Common Name   | ELCODE     | G/S Rank | Ecoregions | W S & P                      | Wetland Type | References  |
|--|---|------------|----------|------------|------------------------------|--------------|---|
| <i>Picea engelmannii</i> / <i>Carex angustata</i>  | Engelmann spruce / widefruit sedge                                    | CEGL000359 | G3S3     | EC         |                              | FW           | Kovalchik 1987: 55; Titus et al. 1998; Crowe et al. 2004: 433, 442  |
| <i>Picea engelmannii</i> / <i>Carex disperma</i>   | Engelmann spruce / soft-leaved sedge                                  | CEGL000358 | G2S2     | BM, EC     |                              | FW           | Steele et al. 1981: 47; Steele et al. 1983: 38; Crowe and Clausnitzer 1997: 38, 46; Titus et al. 1998   |
| <i>Picea engelmannii</i> / <i>Cinna latifolia</i>  | Engelmann spruce / drooping woodreed                                  | OR0017     | G3SU     | BM         | ID?                          | FW           | Crowe and Clausnitzer 1997: 47; Titus et al. 1998   |
| <i>Picea engelmannii</i> / <i>Clintonia uniflora</i>   | Engelmann spruce / queencup beadlily                                  | CEGL000360 | G3S3     | EC         | CA?                          |              | Volland 1976: 79; Kovalchik 1987: 49; Titus et al. 1998   |
| <i>Picea engelmannii</i> / <i>Cornus sericea</i>   | Engelmann spruce / creek dogwood riparian                             | CEGL002677 | G3S3     | BM         | AB?, CO, ID, MT, UT?, WA, WY | FW           | Crowe and Clausnitzer 1997: 46; Kovalchik 1993; Titus et al. 1998; Crowe et al. 2004: 438   |
| <i>Picea engelmannii</i> / <i>Eleocharis quinqueflora</i>  | Engelmann spruce / small-flowered spikerush                           | CEGL000361 | G3S3     | EC, WC     |                              | FE           | Kovalchik 1987: 45; Crowe et al. 2004: 444  |
| <i>Picea engelmannii</i> / Equisetum arvense swamp forest  | Engelmann spruce / common horsetail swamp                             | CEGL005927 | G4S3     | BM, EC     | AB, CO, ID, MT, UT, WA, WY   | FW           | Steele et al. 1981: 49; Steele et al. 1983: 36; Kovalchik 1987: 57; Padgett et al. 1989: 29; Crowe and Clausnitzer 1997: 46; Kovalchik 1993: 52; Titus et al. 1998; Crowe et al. 2004: 428                                    |
| <i>Picea engelmannii</i> / <i>Senecio triangularis</i>   | Engelmann spruce / arrowleaf groundsel swamp                          | CEGL000376 | G3S3     | BM, EC     |                              | FW           | Cole 1977b: 78; Crowe and Clausnitzer 1997: 44; Crowe et al. 2004: 425; Wells 2006: 46  |
| <i>Picea engelmannii</i> / <i>Vaccinium scoparium</i>  | Engelmann spruce / grouseberry  | CEGL000381 | G3G5SU   | BM, EC     | CO, MT, NM, UT, WY           |              | Steele et al. 1983: 40; Titus et al. 1998   |
| <i>Picea engelmannii</i> / <i>Vaccinium uliginosum</i>   | subalpine fir / bog blueberry   | CEGL000380 | G3SU     | BM, EC     |                              | FW           | Crowe and Clausnitzer 1997: 39; Kovalchik 1987: 51, 53; Titus et al. 1998; Crowe et al. 2004: 410, 440; Wells 2006: 38, 44  |
| <i>Picea sitchensis</i> - ( <i>Alnus rubra</i> ) / <i>Rubus spectabilis</i> / <i>Polystichum munitum</i> forest            | Sitka spruce / salmonberry / swordfern                                | CEGL007297 | GNRS3    | CR         | BC, WA                       | FW           | Henderson 1970: 42; Smith and Smith 1976: 112; Henderson 1979: 200; Hemstrom and Logan 1986: 69; Klinka et al. 1996: 152; McCain and Diaz 2002a   |
| <i>Picea sitchensis</i> - ( <i>Pseudotsuga menziesii</i> ) / <i>Oplopanax horridus</i> Forest                              | Sitka spruce / devil's club   | CEGL005527 | G4S3     | CR         |                              | FW           | Meidinger et al. 2005; Hemstrom and Logan 1986  |
| <i>Picea sitchensis</i> - <i>Abies grandis</i> / <i>Gaultheria shallon</i> / <i>Polystichum munitum</i>                    | Sitka spruce - grand fir / salal - evergreen huckleberry / sword fern | CEGL000053 | G1S1     | CR         |                              |              | Atzet et al. 1996   |
| <i>Picea sitchensis</i> - <i>Pinus contorta</i> var. <i>contorta</i> / <i>Gaultheria shallon</i> - <i>Vaccinium ovatum</i> | Sitka spruce - shore pine / salal - evergreen huckleberry             | CEGL000403 | G3S3     | CR         | CA?, WA                      |              | Martin and Frenkel 1978: 18, 48; Christy et al. 1998: 54  |
| <i>Picea sitchensis</i> - <i>Pseudotsuga menziesii</i> / <i>Gaultheria shallon</i> forest                                  | Sitka spruce - Douglas-fir / salal                                    | CEGL005526 | G3G4S2   | CR         | BC, CA?, WA                  |              | Quaye 1982; Meidinger et al. 2005; McCain and Diaz 2002a; Lawyer 1979; Kratz 1975; Klinka et al. 1996; Hemstrom and Logan 1986; Crawford et al. 2009; Christy et al. 1998; Bonacker et al. 1979; Bigley and Hull 1995         |
| <i>Picea sitchensis</i> - <i>Pseudotsuga menziesii</i> / <i>Oxalis oregana</i> forest                                      | Sitka spruce - Douglas-fir / redwood sorrel                           | CEGL005528 | G3G4S1   | CR         | WA                           |              | Quaye 1982; Meidinger et al. 2005; McCain and Diaz 2002a; Henderson et al. 1989; Henderson et al. 1986; Henderson et al. 1979; Hemstrom and Logan 1986; Fonda 1974; Crawford et al. 2009; Chappell 1999; Bigley and Hull 1995 |
| <i>Picea sitchensis</i> - <i>Pseudotsuga menziesii</i> / <i>Polystichum munitum</i> forest                                 | Sitka spruce / sword fern   | CEGL007308 | GNRS3    | CR         | WA                           |              | Martin and Frenkel 1978: 18, 48; Quaye 1982: 61, 64; Hemstrom and Logan 1986: 73; Bigley and Hull 1995: 19; Klinka et al. 1996: 151; Christy et al. 1998: 46; McCain and Diaz 2002a   |
| <i>Picea sitchensis</i> - <i>Pseudotsuga menziesii</i> / <i>Rubus spectabilis</i> forest                                   | Sitka spruce - Douglas-fir / salmonberry                              | CEGL007309 | G4S3     | CR         |                              |              | Meidinger et al. 2005   |

| Scientific Name  | Common Name   | ELCODE     | G/S Rank | Ecoregions | W S & P              | Wetland Type | References   |
|--|---|------------|----------|------------|----------------------|--------------|--|
| <i>Picea sitchensis</i> - <i>Tsuga heterophylla</i> - ( <i>Alnus rubra</i> ) / <i>Oplopanax horridus</i> / <i>Polystichum munitum</i> forest | Sitka spruce / devil's club   | CEGL005529 | GNRS3    | CR         | AK?, WA              | FW           | Hemstrom and Logan 1986: 61; Klinka et al. 1996: 152; McCain and Diaz 2002a  |
| <i>Picea sitchensis</i> - <i>Tsuga heterophylla</i> / <i>Polystichum munitum</i> - <i>Oxalis oregana</i> forest                              | Sitka spruce / wood sorrel  | CEGL005530 | GNRS2    | CR         | WA                   |              | Quaye 1982: 55; Hemstrom and Logan 1986: 65; Bigley and Hull 1995: 17; McCain and Diaz 2002a   |
| <i>Picea sitchensis</i> - <i>Tsuga heterophylla</i> / <i>Polystichum munitum</i> forest  | Sitka spruce - western Hemlock / western swordfern                            | CEGL003787 | G4S3     | CR         | BC, WA               |              | Quaye 1982; Mycek 1994; Meidinger et al. 2005; McCain and Diaz 2002a; Martin and Frenkel 1978; Lertzman et al. 2002; Kratz 1975; Klinka et al. 1996; Kagan et al. 2012; Juday 1976; Henderson et al. 1989; Hemstrom and Logan 1986; Green and Klinka 1994; Dorner and Wong 2003; Crawford et al. 2009; Christy et al. 1998; Cadrin and Wolowicz 2005; Bigley and Hull 1995; Banner et al. 2005; Banner et al. 1993 |
| <i>Picea sitchensis</i> - <i>Tsuga heterophylla</i> / <i>Rhododendron macrophyllum</i> - <i>Vaccinium ovatum</i>                             | Sitka spruce - western hemlock / western rhododendron - evergreen huckleberry | CEGL002603 | G1S1     | CR         | CA                   |              | Wiedemann 1984; Hemstrom and Logan 1986: 87; Christy et al. 1998: 52   |
| <i>Picea sitchensis</i> / <i>Calamagrostis nutkaensis</i> forest   | Sitka spruce / Pacific reedgrass  | CEGL005523 | G3S2     | CR         | AK, BC, WA           |              | Pawuk and Kissinger 1989; Meidinger et al. 2005; Martin et al. 1995; Kratz 1975; Kagan et al. 2012; Green and Klinka 1994; DeVelice et al. 1999; DeMeo et al. 1992; Crawford et al. 2009; Boggs 1996   |
| <i>Picea sitchensis</i> / <i>Carex obnupta</i> - <i>Lysichiton americanus</i>  | Sitka spruce / slough sedge - skunk cabbage swamp                             | CEGL000400 | G2S1     | CR         | CA, WA               | FW           | Smith and Smith 1976: 112, 129; Frenkel et al. 1978: 59; Boss 1983: 83; Kunze 1994: 91, 98; Bigley and Hull 1995: 20; Klinka et al. 1996: 153; Christy et al. 1998: 62; Christy 2001a: 10; Christy 2004: 28  |
| <i>Picea sitchensis</i> / <i>Cornus sericea</i> / <i>Lysichiton americanus</i>   | Sitka spruce / red-osier dogwood / skunk cabbage swamp                        | CEGL000055 | G2S1     | CR         | WA                   | FW           | Eilers 1975a: 261; Hirschberger 1978: 5; Frenkel et al. 1978: 99; Thomas 1980: 8; Christy 2004: 29   |
| <i>Picea sitchensis</i> / <i>Gaultheria shallon</i> forest   | Sitka spruce / salal  | CEGL005524 | GNRS3    | CR         | BC, CA?, WA          |              | Quaye 1982: 66; Hemstrom and Logan 1986: 67; Bigley and Hull 1995: 22; Klinka et al. 1996: 151; Christy et al. 1998: 42; McCain and Diaz 2002a; Atzet et al. 1996; Christy et al. 1998: 48   |
| <i>Picea sitchensis</i> / <i>Lonicera involucrata</i> - <i>Malus fusca</i> Brackish Swamp Forest [Provisional]                               | Sitka spruce / black twinberry - western crabapple                            | OR1123     | G3S2     | CR         |                      | SM           | Brophy et al. 2011   |
| <i>Picea sitchensis</i> / <i>Menziesia ferruginea</i> - <i>Vaccinium parvifolium</i>   | Sitka spruce / fool's huckleberry - red huckleberry                           | CEGL000056 | G3S3     | CR         | CA?, WA?             |              | Quaye 1982: 61; Hemstrom and Logan 1986: 63; McCain and Diaz 2002a   |
| <i>Picea sitchensis</i> / <i>Vaccinium ovatum</i>  | Sitka spruce / evergreen huckleberry  | CEGL007306 | GNRS3    | CR         | WA                   |              | Atzet et al. 1996; Christy et al. 1998: 48   |
| <i>Picrothamnus desertorum</i> shrubland   | bud sagebrush shrubland   | CEGL001452 | G3G4S2   | BR         | MT, NV               |              | Schulz and Hall 2011; Peterson 2008  |
| <i>Pinus albicaulis</i> - ( <i>Abies lasiocarpa</i> ) / <i>Carex geyeri</i> woodland   | whitebark pine - (subalpine fir) / Geyer's sedge woodland                     | CEGL000754 | G2G3S2   | BM         | ID, MT, WY           |              | Steele et al. 1983; Steele et al. 1981; Schmidt and McDonald 1990; Schlatterer 1972; Rust 1998; Reid et al. 2004; Nesser et al. 1997; Murray 1996; Jones and Ogle 2000; Johnston 1987; Hop et al. 2007; Hall 1973; Eyre 1980; Cooper 1975; Cogan et al. 2005; Burns and Honkala 1990a; Bowerman et al. 1997; Arno and Weaver 1990  |
| <i>Pinus albicaulis</i> - ( <i>Tsuga mertensiana</i> ) / <i>Luzula glabrata</i> var. <i>hitchcockii</i> woodland                             | whitebark pine - (mountain hemlock) / Hitchcock's smooth woodrush woodland    | CEGL007352 | G4S3     | EC, WC     | WA                   |              | Diaz et al. 1997: 67; Meidinger et al. 2005; McCain and Diaz 2002a; Crawford et al. 2009   |
| <i>Pinus albicaulis</i> - <i>Abies lasiocarpa</i> / <i>Vaccinium scoparium</i>   | whitebark pine - subalpine fir / grouseberry                                  | CEGL000752 | G4S4     | BM         | AB?, ID, MT, WA?, WY |              | Head 1959: 36; Cole 1977b: 88; Cole 1982: 14; Steele et al. 1983: 66; Johnson and Clausnitzer 1992: 42, 43   |
| <i>Pinus albicaulis</i> - <i>Pinus contorta</i> var. <i>latifolia</i> / <i>Penstemon laetus</i>  | whitebark pine - lodgepole pine / gay penstemon                               | CEGL000130 | G3S3     | EC         | CA?                  |              | Hopkins 1979a: 19  |
| <i>Pinus albicaulis</i> / <i>Festuca viridula</i> herbaceous vegetation with sparse Trees  | whitebark pine / greenleaf fescue herbaceous vegetation with sparse Trees     | CEGL007314 | G2S1     | BM, EC, WC | WA                   |              | Meidinger et al. 2005  |
| <i>Pinus albicaulis</i> / <i>Juniperus communis</i> woodland   | whitebark pine / mountain juniper   | CEGL000756 | G4S3     | EC, WC     | ID, MT, WA, WY       |              | Diaz et al. 1997: 47   |

| Scientific Name   | Common Name   | ELCODE     | G/S Rank | Ecoregions | W S & P                | Wetland Type | References  |
|---|---|------------|----------|------------|------------------------|--------------|---|
| <i>Pinus albicaulis</i> / <i>Luzula glabrata</i> var. <i>hitchcockii</i> woodland           | whitebark pine / Hitchcock's smooth woodrush woodland       | CEGL000758 | G3S1     | BM, EC, WC | CA, ID, WA             |              | Williams and Smith 1990; Lillybridge et al. 1995  |
| <i>Pinus albicaulis</i> / <i>Vaccinium scoparium</i>  | whitebark pine / grouseberry                                | CEGL000131 | G4S2     | BM, WC     | AB?, ID, MT, WY        |              | Terwilliger et al. 1979a; Steele et al. 1983; Reed 1976; Reed 1969; Jones and Ogle 2000; Jones 1999; Johnston 1987; Cooper 1975; Cogan et al. 2005  |
| <i>Pinus attenuata</i> / <i>Arctostaphylos nevadensis</i>                                   | knobcone pine / pinemat manzanita                           | CEGL000763 | G2S2     | KM         | CA                     |              | Sawyer and Keeler-Wolf 1995; Kagan and Borgais 1994; Hopkins 1979a  |
| <i>Pinus attenuata</i> / <i>Arctostaphylos viscida</i>                                      | knobcone pine / sticky whiteleaf manzanita                  | CEGL008623 | G3S2     | KM         | CA                     |              | Sawyer et al. 2009; Keeler-Wolf et al. 2012; Keeler-Wolf et al. 2003a; Keeler-Wolf 2002   |
| <i>Pinus contorta</i> - ( <i>Populus tremuloides</i> ) / <i>Vaccinium uliginosum</i> forest | lodgepole pine - (aspen) / bog blueberry                    | CEGL000158 | G3QS2    | EC, WC     |                        | FW           | Kovalchik 1987; Crowe et al. 2004   |
| <i>Pinus contorta</i> / <i>Calamagrostis rubescens</i> forest                               | lodgepole pine / pinegrass                                  | CEGL000139 | G5S5     | BM, EC, WC | ID, MT, WA, WY         |              | Tisdale and McLean 1957; Steele et al. 1983; Steele et al. 1981; Reid et al. 2004; Pfister et al. 1977; Oswald 1966; Mauk and Henderson 1984; Johnson and Clausnitzer 1992; Horton 1971; Hop et al. 2007; Erixson and Cogan 2012b; Cooper et al. 1987; Cooper 1975; Cogan et al. 2005   |
| <i>Pinus contorta</i> / <i>Carex (aquatilis, angustata)</i> swamp woodland                  | lodgepole pine / water or widefruit sedge swamp woodland    | CEGL000140 | G4S4     | BM, EC     |                        | FW           | Kovalchik 1987: 41; Titus et al. 1998; Volland 1976: 32; Crowe et al. 2004; Crowe and Clausnitzer 1997  |
| <i>Pinus contorta</i> / <i>Carex geyeri</i> forest  | lodgepole pine / Geyer's sedge                              | CEGL000141 | G4S4     | BM, EC     | CO, ID, MT, NM, WY     |              | Wasser and Hess 1982; Steen and Dix 1974; Steele et al. 1983; Steele et al. 1981; Salas et al. 2005; Moir 1969a; Komarkova et al. 1988b; Jones and Ogle 2000; Johnston 1987; Johnson and Clausnitzer 1992; Hess and Wasser 1982; Hess and Alexander 1986; Hess 1981; Cooper 1975; Cogan et al. 2005; Alexander 1986; Alexander 1981 |
| <i>Pinus contorta</i> / <i>Clintonia uniflora</i> - <i>Xerophyllum tenax</i> woodland       | lodgepole pine / bride's bonnet - common beargrass woodland | CEGL005921 | G4G5SU   | BM, EC     | AB, ID, MT, WA?        |              | Williams et al. 1995; Reid et al. 2004; Pfister et al. 1977; Lillybridge et al. 1995; Johnson and Simon 1987; Hop et al. 2007; Daubenmire and Daubenmire 1968; Cooper et al. 1987; Achuff et al. 2002   |
| <i>Pinus contorta</i> / <i>Clintonia uniflora</i> forest                                    | lodgepole pine / bride's bonnet                             | CEGL005916 | G5S4     | BM, EC     | AB, ID, MT, WA         |              | Williams et al. 1995; Williams and Lillybridge 1983; Steele et al. 1981; Reid et al. 2004; Pfister et al. 1977; Lotan and Perry 1983; Lillybridge et al. 1995; Johnson and Simon 1987; Hop et al. 2007; Grossman et al. 1998; Daubenmire and Daubenmire 1968; Cooper et al. 1987; Achuff et al. 2002                                |
| <i>Pinus contorta</i> / <i>Menziesia ferruginea</i> / <i>Clintonia uniflora</i> forest      | lodgepole pine / rusty menziesia / bride's bonnet           | CEGL005922 | G4G5SU   | BM, EC     | AB, ID, MT, WA?        |              | Williams et al. 1995; Reid et al. 2004; Pfister et al. 1977; Ogilvie 1962; Lillybridge et al. 1995; Johnson and Simon 1987; Hop et al. 2007; Grossman et al. 1998; Daubenmire and Daubenmire 1968; Cooper et al. 1987; Achuff et al. 2002   |
| <i>Pinus contorta</i> / <i>Vaccinium cespitosum</i> forest                                  | lodgepole pine / dwarf Bilberry                             | CEGL000168 | G5S3     | BM, EC     | AB, CO, ID, MT, UT, WY | FW           | Williams et al. 1990b; Steele et al. 1983; Steele et al. 1981; Salas et al. 2005; Roberts 1980; Reid et al. 2004; Pfister et al. 1977; Mauk and Henderson 1984; Johnston 1987; Hop et al. 2007; Cooper et al. 1987; Cooper 1975   |
| <i>Pinus contorta</i> / <i>Vaccinium membranaceum</i> / <i>Xerophyllum tenax</i> forest     | lodgepole pine / thinleaf huckleberry / common beargrass    | CEGL005913 | G4G5S4   | BM, EC, WC | AB, ID, MT, WA         |              | Williams et al. 1995; Steele et al. 1981; Reid et al. 2004; Pfister et al. 1977; Lillybridge et al. 1995; Johnson and Simon 1987; Hop et al. 2007; Daubenmire and Daubenmire 1968; Cooper et al. 1987; Achuff et al. 2002   |
| <i>Pinus contorta</i> / <i>Vaccinium membranaceum</i> Rocky Mountain forest                 | lodgepole pine / thinleaf huckleberry                       | CEGL000169 | G3G4S4   | BM, EC, WC | ID, MT, WA, WY         |              | Steele et al. 1983; Pfister et al. 1977; Johnson and Clausnitzer 1992; Hall 1973; Crawford et al. 2009; Cogan et al. 2005   |

| Scientific Name  | Common Name   | ELCODE     | G/S Rank | Ecoregions     | W S & P                     | Wetland Type | References   |
|--|---|------------|----------|----------------|-----------------------------|--------------|--|
| <i>Pinus contorta</i> / <i>Vaccinium scoparium</i> forest  | lodgepole pine / grouse whortleberry                        | CEGL000172 | G5S4     | BM, EC, KM, WC | CA?, CO, ID, MT, UT, WA, WY |              | Wasser and Hess 1982; Volland 1976; Ueckert 1968; Terwilliger et al. 1979a; Steen and Dix 1974; Steele et al. 1983; Steele et al. 1981; Salas et al. 2005; Rolston 1961; Reid et al. 2004; Pfister et al. 1977; Oswald 1966; Mauk and Henderson 1984; Marr et al. 1973b; Komarkova et al. 1988b; Jones and Ogle 2000; Jones and Fertig 1999d; Jones 1999; Johnston 1987; Johnson 1981a; Horton 1971; Hop et al. 2007; Hoffman and Alexander 1987; Hoffman and Alexander 1980; Hoffman and Alexander 1976; Hess and Alexander 1986; Hess 1981; Harrington 1978; Hall 1973; Daubenmire and Daubenmire 1968; Cooper et al. 1987; Cooper 1975; Cogan et al. 2005; Baker 1984a; Alexander et al. 1986 |
| <i>Pinus contorta</i> var. <i>contorta</i> - ( <i>Thuja plicata</i> ) / <i>Ledum glandulosum</i>                                 | shorepine - (western redcedar) / Labrador tea               | OR0018     | G2S2     | CR             | CA?, WA?                    | FW           | Cordes 1972: 300; Kunze 1994: 76, 78; Hebda and Biggs 1981: 8; Wiedemann 1984: 56; Howarth 1995: 2, 11; Klinka et al. 1996: 153  |
| <i>Pinus contorta</i> var. <i>contorta</i> - <i>Pseudotsuga menziesii</i> / <i>Morella californica</i> - <i>Vaccinium ovatum</i> | shorepine - Douglas-fir / waxmyrtle - evergreen huckleberry | CEGL000151 | G3S3     | CR             | CA?                         |              | Christy et al. 1998: 56; Wiedemann 1993; Wiedemann 1990; Wiedemann 1984; Sawyer and Keeler-Wolf 1995; Meidinger et al. 2005; Martin and Frenkel 1978; Kumler 1969; Kagan et al. 2012   |
| <i>Pinus contorta</i> var. <i>contorta</i> / <i>Arctostaphylos columbiana</i> woodland   | shorepine / hairy manzanita                                 | CEGL002682 | G1S1     | CR             | CA?                         |              | Wiedemann 1993; Wiedemann 1984; Kumler 1969; Egler 1934; Duebendorfer 1992; Christy et al. 1998  |
| <i>Pinus contorta</i> var. <i>contorta</i> / <i>Arctostaphylos uva-ursi</i>  | shorepine / kinnikinnick                                    | CEGL002605 | G1S1     | CR             | CA, WA                      |              | Wiedemann 1993; Wiedemann 1990; Wiedemann 1984; Kumler 1969; Kagan et al. 2012; Egler 1934; Duebendorfer 1992; Christy et al. 1998; Alpert 1984  |
| <i>Pinus contorta</i> var. <i>contorta</i> / <i>Carex obnupta</i>  | shorepine / slough sedge                                    | CEGL000142 | G2S2     | CR             | CA?, WA                     | FW           | Wiedemann 1993; Wiedemann 1984; Wiedemann 1966; Sawyer and Keeler-Wolf 1995; Meidinger et al. 2005; McCain and Christy 2005; Egler 1934; Christy et al. 1998; Christy 2004: 31; Christy 2001a; Christy 1979  |
| <i>Pinus contorta</i> var. <i>contorta</i> / <i>Gaultheria shallon</i> - <i>Vaccinium ovatum</i>                                 | pygmy shore pine on Blacklock soils                         | CEGL000152 | G1S1     | CR             | CA?                         |              | Jenny et al. 1969: 63; Martin and Frenkel 1978: 18, 48   |
| <i>Pinus contorta</i> var. <i>contorta</i> / <i>Rhododendron macrophyllum</i> - <i>Vaccinium ovatum</i>                          | shore pine / western rhododendron - evergreen huckleberry   | CEGL000151 | G3S2     | CR             | CA?                         |              | Wiedemann 1993; Wiedemann 1990; Wiedemann 1984; Sawyer and Keeler-Wolf 1995; Meidinger et al. 2005; Martin and Frenkel 1978; Kumler 1969; Kagan et al. 2012; Christy et al. 1998   |
| <i>Pinus contorta</i> var. <i>latifolia</i> - <i>Populus tremuloides</i> / <i>Spiraea douglasii</i>                              | lodgepole pine - quaking aspen / Douglas spiraea            | CEGL000157 | G3S3     | EC             | CA?                         | FW           | Kovalchik 1987: 35, 63; Titus et al. 1998; Crowe et al. 2004: 390, 392, 454  |
| <i>Pinus contorta</i> var. <i>latifolia</i> / ( <i>Arctostaphylos nevadensis</i> ) / <i>Xerophyllum tenax</i>                    | lodgepole pine / (pinemat manzanita) / beargrass            | CEGL000175 | G5S4     | EC             | ID, MT, WY?                 |              | Volland 1976: 52; Cooper et al. 1987; Arno et al. 1985; Volland 1985; Volland 1976   |
| <i>Pinus contorta</i> var. <i>latifolia</i> / <i>Achnatherum occidentale</i> ssp. <i>occidentale</i>                             | lodgepole pine / western needlegrass                        | CEGL000165 | G4QS3    | EC             |                             |              | Volland 1976: 42, 43, 48, 49; Johnson and Clausnitzer 1992: 43   |
| <i>Pinus contorta</i> var. <i>latifolia</i> / <i>Arctostaphylos nevadensis</i>   | lodgepole pine / pinemat manzanita                          | CEGL000133 | G3S3     | EC, WC         | CA?                         |              | Volland 1976: 50; Atzet and McCrimmon 1990: 62; Meidinger et al. 2005; Marsh et al. 1987   |
| <i>Pinus contorta</i> var. <i>latifolia</i> / <i>Arctostaphylos uva-ursi</i>   | lodgepole pine / kinnikinnick                               | CEGL000134 | G5S4     | EC             | CO, MT, UT, WA, WY          |              | Youngberg and Dahms 1970; Volland and Dell 1981; Volland 1976; Titus et al. 1998; Terwilliger et al. 1979a; Stephens 1966; Steen and Dix 1974; Shepherd 1975; Salas et al. 2005; Pfister 1972; Peet 1981; Peet 1980; Meidinger et al. 2005; Mauk and Henderson 1984; Kovalchik 1987; Jones and Ogle 2000; Johnston 1987; Hoffman and Alexander 1976; Franklin 1966; Driscoll et al. 1984; Douglas 1971; Despain 1973b; Crowe et al. 2004; Crawford et al. 2009; Bigley and Hull 1992; Baker 1984a  |
| <i>Pinus contorta</i> var. <i>latifolia</i> / <i>Artemisia tridentata</i> / <i>Elymus elymoides</i>                              | lodgepole pine / big sagebrush / bottlebrush squirreltail   | CEGL000137 | G3S3     | EC             |                             |              | Volland 1976: 36   |

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|--|--|------------|----------|------------|---------------------|--------------|---|
| <i>Pinus contorta</i> var. <i>latifolia</i> / <i>Artemisia tridentata</i> / <i>Festuca idahoensis</i>                            | lodgepole pine / big sagebrush / Idaho fescue      | CEGL000136 | G3S3     | EC         |                     |              | Volland 1976: 37  |
| <i>Pinus contorta</i> var. <i>latifolia</i> / <i>Calamagrostis canadensis</i>  | lodgepole pine / bluejoint reedgrass               | CEGL000138 | G5S3     | BM, EC     | CA?, ID, MT, UT, WY | FW           | Tuhy and Jensen 1982; Tuhy 1981; Titus et al. 1998; Steele et al. 1983; Steele et al. 1981; Reid et al. 2004; Pfister et al. 1977; Padgett et al. 1989; Mutz and Queiroz 1983; Mauk and Henderson 1984; Jones and Ogle 2000; Hop et al. 2007; Henderson et al. 1977; Girard et al. 1997; Crowe et al. 2004: 462; Crowe and Clausnitzer 1997; Cooper et al. 1987; Cooper 1975; Cogan et al. 2005 |
| <i>Pinus contorta</i> var. <i>latifolia</i> / <i>Carex (aquatilis</i> var. <i>aquatilis, angustata)</i> Swamp Woodland           | Lodgepole pine / aquatic sedge, widefruit sedge    | CEGL000140 | G4S3     | BM, EC     |                     | FW           | Crowe et al. 2004: 457, 459; Kovalchik 1987: 41; Titus and Christy 1999   |
| <i>Pinus contorta</i> var. <i>latifolia</i> / <i>Carex inops</i> ssp. <i>inops</i>   | lodgepole pine / long-stolon sedge                 | CEGL000143 | G3G4S4   | BM, EC, WC | CA?                 |              | Volland 1976: 46, 47; Hopkins 1979a: 22; Atzet and McCrimmon 1990: 59   |
| <i>Pinus contorta</i> var. <i>latifolia</i> / <i>Ceanothus velutinus</i>   | lodgepole pine / snowbrush                         | CEGL000145 | G4S4     | EC         | MT, WY              |              | Volland 1976: 45  |
| <i>Pinus contorta</i> var. <i>latifolia</i> / <i>Danthonia californica</i>   | lodgepole pine / California oatgrass               | CEGL000146 | G3QS3    | EC         |                     |              | Dealy 1971: 45  |
| <i>Pinus contorta</i> var. <i>latifolia</i> / <i>Deschampsia cespitosa</i>   | lodgepole pine / tufted hairgrass                  | CEGL000147 | G3S3     | BM, EC     | CA?                 | FW           | Kovalchik 1987: 136; Crowe and Clausnitzer 1997: 50; Titus et al. 1998; Crowe et al. 2004: 463  |
| <i>Pinus contorta</i> var. <i>latifolia</i> / <i>Festuca idahoensis</i>  | lodgepole pine / Idaho fescue                      | CEGL000149 | G3S2     | EC         | ID, WY              |              | Dealy 1971: 40; Hopkins 1979a: 21; Steele et al. 1981: 85   |
| <i>Pinus contorta</i> var. <i>latifolia</i> / <i>Linnaea borealis</i>  | lodgepole pine / twinflower                        | CEGL000153 | G5S4     | BM         | AB, MT,             |              | Steele et al. 1983: 72; Johnson and Simon 1987: 305   |
| <i>Pinus contorta</i> var. <i>latifolia</i> / <i>Purshia tridentata</i> - <i>Ribes cereum</i>                                    | lodgepole pine / bitterbrush - wax currant         | CEGL000161 | G4S4     | EC         |                     |              | Volland 1976: 35, 38, 41  |
| <i>Pinus contorta</i> var. <i>latifolia</i> / <i>Purshia tridentata</i> / <i>Achnatherum occidentale</i> ssp. <i>occidentale</i> | lodgepole pine / bitterbrush / western needlegrass | CEGL000162 | G3S3     | EC         |                     |              | Volland 1976: 35, 38, 40, 42  |
| <i>Pinus contorta</i> var. <i>latifolia</i> / <i>Purshia tridentata</i> / <i>Carex inops</i> ssp. <i>inops</i>                   | lodgepole pine / bitterbrush / long-stolon sedge   | CEGL000159 | G4S4     | EC         |                     |              | Volland 1976: 44,45   |
| <i>Pinus contorta</i> var. <i>latifolia</i> / <i>Purshia tridentata</i> / <i>Festuca idahoensis</i>                              | lodgepole pine / bitterbrush / Idaho fescue        | CEGL000160 | G3S3     | EC         |                     |              | Volland 1976: 39  |
| <i>Pinus contorta</i> var. <i>latifolia</i> / <i>Spiraea douglasii</i>   | lodgepole pine / Douglas spiraea                   | CEGL002604 | G3S3     | EC         | CA?                 | FW           | Kovalchik 1987: 33, 35, 136; Titus et al. 1998; Crowe et al. 2004: 451  |
| <i>Pinus contorta</i> var. <i>latifolia</i> / <i>Vaccinium membranaceum</i>  | lodgepole pine / thin-leaved blueberry             | CEGL000170 | G4S4     | BM         | WA                  |              | Hall 1973: 35; Cole 1977b: 67; Cole 1982: 15; Johnson and Simon 1987: 259; Johnson and Clausnitzer 1992: 42, 76   |
| <i>Pinus contorta</i> var. <i>latifolia</i> / <i>Vaccinium scoparium</i>   | lodgepole pine / grouseberry                       | CEGL000174 | G3S3     | BM, EC     | BC, ID, MT, WA, WY  |              | Hall 1973: 36; Volland 1976: 51; Steele et al. 1981: 85; Steele et al. 1983: 72; Johnson and Simon 1987: 250; Cooper et al. 1991: 79; Johnson and Clausnitzer 1992: 41, 77, 79  |
| <i>Pinus contorta</i> var. <i>latifolia</i> / <i>Vaccinium scoparium</i> / <i>Carex inops</i> ssp. <i>inops</i>                  | lodgepole pine / grouseberry / long-stolon sedge   | CEGL000173 | G3S3     | BM, EC     |                     |              | Hopkins 1979b: 13; Volland 1976   |
| <i>Pinus contorta</i> var. <i>latifolia</i> / <i>Vaccinium uliginosum</i>  | lodgepole pine / western bog blueberry             | CEGL000171 | G3S3     | EC, WC     | CA, ID              | FW           | Volland 1976; Tuhy and Jensen 1982; Titus et al. 1998; Titus and Christy 1996a; Seyer 1979; Sawyer et al. 2009; Moseley et al. 1994; Kovalchik 1987; Keeler-Wolf et al. 2012; Keeler-Wolf et al. 2003a; Crowe et al. 2004: 447, 449   |
| <i>Pinus contorta</i> var. <i>murrayana</i> / sparse understory forest   | Sierra lodgepole pine / sparse understory forest   | CEGL003069 | G4S4     | EC, KM     | CA, NV +            |              | Sawyer et al. 2009; Sawyer and Keeler-Wolf 1995; Keeler-Wolf et al. 2012; Keeler-Wolf et al. 2003a; Keeler-Wolf 2002  |

| Scientific Name  | Common Name  | ELCODE     | G/S Rank | Ecoregions | W S & P                         | Wetland Type | References  |
|--|--|------------|----------|------------|---------------------------------|--------------|---|
| <i>Pinus flexilis</i> / <i>Juniperus communis</i> subalpine parkland   | limber pine / mountain juniper   | CEGL000807 | G5S1     | BM         | AB, CA?, CO, ID, MT, NV, UT, WY |              | Cole 1977b: 62; Steele et al. 1981: 22; Cole 1982: 8; Wasser and Hess 1982; Steele et al. 1983; Steele et al. 1981; Schulz and Hall 2011; Salas et al. 2010b; Salas et al. 2005; Reid et al. 2004; Pfister et al. 1977; Jones and Ogle 2000; Jones 1992b; Johnston et al. 2001; Johnston and Hendzel 1985; Johnston 1987; Hop et al. 2007; Hoffman and Alexander 1980; Hess and Alexander 1986; Hess 1981; Coles et al. 2008a; Cole 1982; Cogan et al. 2012; Burns and Honkala 1990a; Baker 1984a; Alexander 1986; Achuff et al. 2002; Achuff et al. 1997 |
| <i>Pinus flexilis</i> / <i>Juniperus scopulorum</i> woodland   | limber pine / Rocky Mountain Juniper woodland                                    | CEGL000809 | G3S1     | BM         | MT, WY                          |              | Stevens et al. 2015; Lesica and DeVelice 1992; DeVelice and Lesica 1993   |
| <i>Pinus jeffreyi</i> - <i>Calocedrus decurrens</i> / <i>Quercus vaccinifolia</i>  | Jeffrey pine - incense cedar / huckleberry oak                                   | CEGL000820 | G4S4     | KM         | CA                              |              | Atzet and Wheeler 1984: 268; Sawyer et al. 2009; Potter 1994; Jimerson et al. 1995; Atzet et al. 1996   |
| <i>Pinus jeffreyi</i> - <i>Pinus monticola</i> / <i>Arctostaphylos nevadensis</i>  | Jeffrey pine - western white pine / pinemat manzanita                            | CEGL000818 | G3S3     | KM         | CA?                             |              | Atzet and Wheeler 1984: 267   |
| <i>Pinus jeffreyi</i> / <i>Ceanothus pumilus</i>   | low elevation Jeffrey pine serpentine savanna                                    | CEGL000816 | G4S3     | KM         | CA?                             |              | Atzet and Wheeler 1984: 269, 270; Atzet et al. 1996; Jimerson et al. 1995   |
| <i>Pinus jeffreyi</i> / <i>Festuca roemeri</i> woodland and savanna  | high elevation Jeffrey pine / serpentine bunchgrass savanna                      | CEGL000817 | G4S4     | KM         | CA                              |              | Atzet and Wheeler 1984: 271; Atzet et al. 1996  |
| <i>Pinus jeffreyi</i> / <i>Quercus vacciniifolia</i> - <i>Arctostaphylos nevadensis</i> woodland   | Jeffrey pine / huckleberry oak - pinemat manzanita woodland                      | CEGL003448 | G2S2     | KM         | CA?                             |              | Sawyer et al. 2009; Jimerson et al. 1995; Atzet et al. 1996   |
| <i>Pinus jeffreyi</i> / <i>Quercus vacciniifolia</i> - <i>Garrya buxifolia</i> woodland  | Jeffrey pine / huckleberry oak - dwarf silktassel woodland                       | CEGL003447 | G2G3S1   | KM         | CA?                             |              | Jimerson et al. 1995; Atzet et al. 1996   |
| <i>Pinus jeffreyi</i> / <i>Ceanothus pumilus</i> - <i>Arctostaphylos viscida</i>   | low elevation, mixed conifer serpentine woodland                                 | CEGL000819 | G3S3     | KM         | CA?                             |              | Atzet and Wheeler 1984: 228   |
| <i>Pinus lambertiana</i> - <i>Pinus ponderosa</i> - <i>Pseudotsuga menziesii</i> / <i>Festuca californica</i>                                    | sugar pine - ponderosa pine - Douglas-fir / California fescue                    | CEGL000065 | G1S1     | KM         | CA?                             |              | Atzet et al. 1996; Atzet and Wheeler 1984   |
| <i>Pinus monticola</i> - <i>Pseudotsuga menziesii</i> / <i>Quercus vaccinifolia</i> - <i>Notholithocarpus densiflorus</i> ssp. <i>echinoides</i> | western white pine - Douglas-fir / huckleberry oak - tan oak                     | CEGL003449 | G2S2     | KM         | CA                              |              | Atzet et al. 1996; Jimerson et al. 1995: F-10; Stumpf et al. 2017; Sawyer et al. 2009   |
| <i>Pinus monticola</i> / <i>Clintonia uniflora</i> forest  | western white pine / bride's bonnet  | CEGL000176 | G1S1     | BM         | ID?, MT, WA                     |              | Johnson 1981a; Dyrness et al. 1975  |
| <i>Pinus monticola</i> / <i>Deschampsia cespitosa</i> riparian forest  | western white pine / tufted hairgrass riparian forest                            | CEGL003441 | G1S1     | BM         |                                 | FW           | Titus et al. 1996; Crowe et al. 2004: 372; Crowe and Clausnitzer 1997   |
| <i>Pinus monticola</i> / <i>Xerophyllum tenax</i>  | western white pine / beargrass   | CEGL000177 | G2S2     | KM         | CA                              |              | Sawyer et al. 2009; Sawyer and Keeler-Wolf 1995; Jimerson et al. 1995; Atzet et al. 1996; Atzet and Wheeler 1984  |
| <i>Pinus ponderosa</i> - <i>Abies concolor</i> / <i>Carex inops</i>  | ponderosa pine - white fir / long-stolon sedge                                   | CEGL000257 | G3S3     | EC         | CA?                             |              | Hopkins 1979a; Baker 1980b  |
| <i>Pinus ponderosa</i> - <i>Juniperus occidentalis</i> / <i>Artemisia tridentata</i> - <i>Purshia tridentata</i> woodland                        | ponderosa pine - western juniper / big sagebrush - bitterbrush                   | CEGL002688 | G4S4     | BM, EC     | CA                              |              | Hopkins 1979a; Baker 1980b  |
| <i>Pinus ponderosa</i> - <i>Juniperus occidentalis</i> / <i>Artemisia tridentata</i> - <i>Purshia tridentata</i> woodland                        | Ponderosa pine - western Juniper / big sagebrush - antelope bitterbrush woodland | CEGL002688 | G4S4     | KM, EC, BM | CA                              |              | Hopkins 1979a; Baker 1980b  |
| <i>Pinus ponderosa</i> - <i>Populus tremuloides</i> / <i>Carex</i> - ( <i>Poa</i> )  | ponderosa pine - quaking aspen / sedge - (bluegrass)                             | CEGL000191 | G2G3S2   | BM, EC     |                                 | FW           | Hopkins 1979a: 28, 36   |
| <i>Pinus ponderosa</i> - <i>Pseudotsuga menziesii</i> / <i>Arctostaphylos nevadensis</i>   | ponderosa pine - Douglas-fir / pinemat manzanita                                 | CEGL000208 | G2S2     | KM, EC     | CA?                             |              | Mitchell and Moir 1976: 50; Atzet and Wheeler 1984: 258   |

| Scientific Name  | Common Name  | ELCODE     | G/S Rank | Ecoregions     | W S & P          | Wetland Type | References  |
|--|--|------------|----------|----------------|------------------|--------------|---|
| <i>Pinus ponderosa</i> - <i>Pseudotsuga menziesii</i> / <i>Arctostaphylos patula</i>                           | ponderosa pine - Douglas-fir / greenleaf manzanita           | CEGL000209 | G3S3     | KM, EC         | CA?              |              | Atzet and Wheeler 1984: 258   |
| <i>Pinus ponderosa</i> - <i>Pseudotsuga menziesii</i> / <i>Carex geyeri</i>                                    | ponderosa pine - Douglas-fir / elk sedge                     | CEGL000211 | GNRQS3   | BM             |                  |              | Hall 1973: 29; Cole 1977b: 56   |
| <i>Pinus ponderosa</i> - <i>Pseudotsuga menziesii</i> / <i>Physocarpus malvaceus</i>                           | ponderosa pine - Douglas-fir / ninebark                      | CEGL000213 | GNRQS3   | BM             | WA               |              | Hall 1973: 31   |
| <i>Pinus ponderosa</i> - <i>Pseudotsuga menziesii</i> / <i>Purshia tridentata</i>                              | ponderosa pine - Douglas-fir / bitterbrush                   | CEGL000214 | G3S3     | EC             | BC?, CA?, UT, WA |              | Sawyer et al. 2009; Romme et al. 1993; Marsh et al. 1987; Crawford et al. 2009; Clark et al. 2009; Williams and Smith 1990; Williams and Lillybridge 1983                               |
| <i>Pinus ponderosa</i> - <i>Quercus garryana</i> / <i>Arctostaphylos viscida</i> / <i>Festuca californica</i>  | ponderosa pine - white oak / bunchgrass savanna              | CEGL000880 | G1S1     | KM             | CA?              |              | Kagan 2010  |
| <i>Pinus ponderosa</i> - <i>Quercus garryana</i> / <i>Balsamorhiza sagittata</i>                               | ponderosa pine - Oregon white oak / arrowleaf balsamroot     | CEGL000881 | G2S2     | EC             |                  |              | Topik et al. 1988: 43   |
| <i>Pinus ponderosa</i> - <i>Quercus garryana</i> / <i>Purshia tridentata</i>                                   | ponderosa pine - Oregon white oak / bitterbrush              | CEGL000883 | G3S3     | EC             | WA               |              | Topik et al. 1988: 47   |
| <i>Pinus ponderosa</i> - <i>Quercus garryana</i> / <i>Symphoricarpos albus</i>                                 | ponderosa pine - white oak / snowberry                       | CEGL000884 | G2G3S3   | EC, KM, WC, WV | CA?, WA          |              | Atzet and McCrimmon 1990: 324; John and Tart 1986   |
| <i>Pinus ponderosa</i> - <i>Quercus kelloggii</i> / <i>Arctostaphylos viscida</i> woodland                     | ponderosa pine - black oak / woodland and savanna            | CEGL008694 | G4?S1    | KM             | CA               |              | Sawyer et al. 2009; Keeler-Wolf et al. 2012; Keeler-Wolf et al. 2003a; Keeler-Wolf 2002   |
| <i>Pinus ponderosa</i> / <i>Arctostaphylos patula</i> - <i>Arctostaphylos viscida</i> manzanita                | ponderosa pine / greenleaf manzanita - sticky manzanita      | CEGL000061 | G2QS3    | EC             | CA?              |              | Atzet and Wheeler 1984: 258; Waring 1969; Franklin et al. 1972  |
| <i>Pinus ponderosa</i> / <i>Arctostaphylos patula</i> - <i>Ceanothus velutinus</i>                             | ponderosa pine / greenleaf manzanita - snowbrush             | CEGL000062 | G3S3     | EC             | CA?              |              | Dyrness 1960: 103; Dyrness and Youngberg 1966: 126; Dealy 1971: 23  |
| <i>Pinus ponderosa</i> / <i>Arctostaphylos patula</i> - <i>Purshia tridentata</i>                              | ponderosa pine / greenleaf manzanita - bitterbrush           | CEGL000063 | G3S3     | EC             | CA               |              | Dyrness 1960: 92; Dyrness and Youngberg 1966: 126; Dealy 1971: 23; Volland 1976: 58, 61, 64; Marsh et al. 1987: 34  |
| <i>Pinus ponderosa</i> / <i>Artemisia arbuscula</i>  | ponderosa pine / low sagebrush                               | CEGL000845 | G2G3S2   | BM             | CO?, ID?, NM     |              | Johnson and Clausnitzer 1992: 123   |
| <i>Pinus ponderosa</i> / <i>Artemisia tridentata</i> var. <i>vaseyana</i>                                      | ponderosa pine / mountain big sagebrush                      | CEGL000180 | G2G3S2   | BM, EC         |                  |              | Dealy 1971: 30; Hopkins 1979a: 29; Johnson and Clausnitzer 1992: 117, 123   |
| <i>Pinus ponderosa</i> / <i>Artemisia tridentata</i> var. <i>vaseyana</i> - <i>Purshia tridentata</i>          | ponderosa pine / mountain big sagebrush - bitterbrush        | CEGL000178 | G3S3     | EC             | CA?              |              | Volland 1976: 55, 56.; Hopkins 1979b: 9   |
| <i>Pinus ponderosa</i> / <i>Artemisia tridentata</i> var. <i>wyomingensis</i> / <i>Achnatherum occidentale</i> | ponderosa pine / Wyoming big sagebrush / western needlegrass | CEGL000179 | G1S1     | BR             | CA               |              | Berry 1963  |
| <i>Pinus ponderosa</i> / <i>Calamagrostis rubescens</i>  | ponderosa pine / pinegrass                                   | CEGL000181 | G2QS1    | BM             | ID, WA           |              | Johnson and Clausnitzer 1992: 109   |
| <i>Pinus ponderosa</i> / <i>Carex geyeri</i>   | ponderosa pine / elk sedge                                   | CEGL000182 | G3G4S2   | BM             | CO, MT, UT, WY   |              | Cole 1977b; Johnson and Clausnitzer 1992: 107   |
| <i>Pinus ponderosa</i> / <i>Ceanothus velutinus</i> - <i>Purshia tridentata</i>                                | ponderosa pine / snowbrush - bitterbrush                     | CEGL000064 | G4S4     | EC             | CA               |              | Dyrness 1960: 96; Dyrness and Youngberg 1966: 126; Volland 1976: 59, 62, 65, 70   |
| <i>Pinus ponderosa</i> / <i>Cercocarpus ledifolius</i> Central Rocky Mountain woodland                         | ponderosa pine / mountain mahogany                           | CEGL005646 | G4S2     | BM             | CA?              |              | Dealy 1971: 28; Dealy 1975: 94; Johnson and Clausnitzer 1992: 97, 99, 101   |
| <i>Pinus ponderosa</i> / <i>Crataegus douglasii</i>  | ponderosa pine / black hawthorn                              | CEGL000855 | G1S1     | BM             | ID, MT, WA, WY   | FW           | Kauffman et al. 1985: 17; Crowe and Clausnitzer 1997: 72; Kauffman et al. 1985; Daubenmire and Daubenmire 1968; Daubenmire 1968a; Crowe et al. 2004: 324; Crawford 2001; Wells 2006: 60 |
| <i>Pinus ponderosa</i> / <i>Elymus glaucus</i>   | ponderosa pine / blue wildrye                                | CEGL000184 | G2S2     | BM             |                  |              | Hall 1973: 28; Head 1959;   |



| Scientific Name   | Common Name  | ELCODE     | G/S Rank | Ecoregions | W S & P                     | Wetland Type | References   |
|---|--|------------|----------|------------|-----------------------------|--------------|--|
| <i>Pinus ponderosa</i> / <i>Festuca idahoensis</i>  | ponderosa pine / Idaho fescue                        | CEGL000857 | G4S2     | BM, EC     | CA?, CO, ID, MT, UT, WA, WY |              | Hall 1973: 26; Ganskopp 1979: 64, 96; Steele et al. 1981: 25; Johnson and Simon 1987: 378; Cooper et al. 1991: 82; Johnson and Clausnitzer 1992: 119; Marsh et al. 1987: 28; Dealy 1971: 36                                      |
| <i>Pinus ponderosa</i> / <i>Pseudoroegneria spicata</i> ssp. <i>spicata</i>               | ponderosa pine / bluebunch wheatgrass                | CEGL000865 | G4S2     | BM         | BC, ID, MT, WA, WY +        |              | Head 1959: 22; Hall 1973: 25; Ganskopp 1979: 63, 97; Steele et al. 1981: 24; Johnson and Simon 1987: 383; Cooper et al. 1991: 83; Johnson and Clausnitzer 1992: 121  |
| <i>Pinus ponderosa</i> / <i>Purshia tridentata</i> / <i>Achnatherum occidentale</i> s     | ponderosa pine / bitterbrush / western needlegrass   | CEGL000198 | G2S2     | EC         | CA                          |              | Dyrness 1960: 72; Dyrness and Youngberg 1966: 126; Volland 1976: 54, 60; Hopkins 1979b: 15   |
| <i>Pinus ponderosa</i> / <i>Purshia tridentata</i> / <i>Carex geyeri</i>                  | ponderosa pine / bitterbrush / elk sedge             | CEGL002606 | G3S3     | BM         | CA, WA?                     |              | Johnson and Clausnitzer 1992: 113; John et al. 1988; Hall 1973; Cole 1977b   |
| <i>Pinus ponderosa</i> / <i>Purshia tridentata</i> / <i>Carex inops</i> ssp. <i>inops</i> | ponderosa pine / bitterbrush / long-stolon sedge     | CEGL000193 | G3S3     | EC         | CA?                         |              | Volland 1976: 63; Volland 1985   |
| <i>Pinus ponderosa</i> / <i>Purshia tridentata</i> / <i>Carex rossii</i>                  | ponderosa pine / bitterbrush / Ross sedge            | CEGL000194 | G2G3S3   | BM         |                             |              | Dealy 1971: 19; Hall 1973: 27; Johnson and Clausnitzer 1992: 111   |
| <i>Pinus ponderosa</i> / <i>Purshia tridentata</i> / <i>Festuca idahoensis</i>            | ponderosa pine / bitterbrush / Idaho fescue          | CEGL000195 | G3S3     | BM, EC     | CA, ID?, MT, WA             |              | Dyrness 1960: 86; Dyrness and Youngberg 1966: 126; Dealy 1971: 10, 15; Volland 1976: 57; Williams 1978: 39, 43, 46; Hopkins 1979a: 25, 26; Hopkins 1979b: 14; Steele et al. 1981: 26; Smith 1994b: 36, 48                        |
| <i>Pinus ponderosa</i> / <i>Purshia tridentata</i> / <i>Oryzopsis hymenoides</i>          | ponderosa pine / bitterbrush / indian ricegrass      | CEGL000196 | G1S1     | BR         | CA                          |              | Moir et al. 1973b; Moir et al. 1973a; Clausnitzer and Zamora 1987; Berry 1963  |
| <i>Pinus ponderosa</i> / <i>Purshia tridentata</i> / <i>Pseudoroegneria spicata</i>       | ponderosa pine / bitterbrush / bluebunch wheatgrass  | CEGL000197 | G3S3     | BM, EC     | CA?, ID, MT?, WA            |              | Volland 1976: 53; Williams 1978: 36; Steele et al. 1981: 26; Johnson and Simon 1987: 388; Johnson and Clausnitzer 1992: 115  |
| <i>Pinus ponderosa</i> / <i>Ribes montigenum</i> woodland                                 | Ponderosa pine / gooseberry currant woodland         | CEGL000200 | G2Q52    | BM         |                             |              | Hopkins 1979a  |
| <i>Pinus ponderosa</i> / <i>Symphoricarpos albus</i>                                      | ponderosa pine / common snowberry riparian           | CEGL000203 | G4?S1    | BM, EC     | CA, ID, MT, WA, WY +        | FW           | Hall 1973: 30; Ganskopp 1979: 67, 95; Steele et al. 1981: 28; Kovalchik 1987: 27; Johnson and Simon 1987: 372, 377; Cooper et al. 1991: 81; Johnson and Clausnitzer 1992: 103; Crowe and Clausnitzer 1997: 72; Titus et al. 1998 |
| <i>Pinus ponderosa</i> / <i>Symphoricarpos albus</i> riparian woodland                    | Ponderosa pine / common snowberry riparian woodland  | CEGL000866 | G2S2     | BM, EC     | ID, WA                      | FW           | Mack 1988; Evans 1989a; Crowe and Clausnitzer 1997; Crawford 2003; Crowe et al. 2004: 321, 373   |
| <i>Pinus ponderosa</i> / <i>Symphoricarpos oreophilus</i>                                 | ponderosa pine / mountain snowberry                  | CEGL000205 | G3S2     | BM         | ID, UT                      |              | Steele et al. 1981: 27; Johnson and Clausnitzer 1992: 105  |
| <i>Pinus ponderosa</i> / <i>Wyethia mollis</i>  | ponderosa pine / woolly wyethia                      | CEGL000206 | G2Q52    | EC         | CA?                         |              | Hopkins 1979a: 27  |
| <i>Plagiobothrys figuratus</i> vernal pool  | fragrant Popcorn-flower vernal pool                  | CEGL003346 | G1S1     | KM, WV     |                             | VP           | ORBIC unpubl. data   |
| <i>Plagiobothrys leptocladus</i> - <i>Veronica peregrina</i> Vernal Pool [Provisional]    | Slender-branched popcorn flower - purslane speedwell | OR1124     | G2S2     | CP         |                             | VP           | Meinke and Magee 1986: 34  |
| <i>Poa cusickii</i>   | Cusick bluegrass meadow                              | CEGL001655 | G2S2     | BM, BR, EC | CA?, NV, WA?                | WM           | Volland 1976: 23; Kovalchik 1987: 90; Manning and Padgett 1991: 453; Titus et al. 1998; Crowe et al. 2004: 149   |
| <i>Poa secunda</i> - ( <i>Balsamorhiza serrata</i> )                                      | Sandberg bluegrass - serrate balsamroot scabland     | CEGL001782 | G3S3     | CP         | WA, WY                      |              | Poulton 1955; Cogan et al. 2005  |
| <i>Poa secunda</i> - <i>Aristida purpurea</i> var. <i>longiseta</i>                       | Sandberg bluegrass - red threeawn                    | CEGL001781 | G3S3     | BM         | ID, WA                      |              | Daubenmire 1970; Tisdale 1986  |
| <i>Poa secunda</i> - <i>Eriogonum compositum</i>  | Sandberg bluegrass - northern buckwheat scabland     | CEGL001784 | G3S3     | BM, CP     | ID?, WA                     |              | Daubenmire 1970; Erixson et al. 2011b  |
| <i>Poa secunda</i> - <i>Eriogonum sphaerocephalum</i>                                     | Sandberg bluegrass - rock buckwheat scabland         | CEGL001787 | G3G4S3   | CP         | BC?, WA                     |              | Daubenmire 1970; MacKenzie and Moran 2004; Kunze 1994; Crawford et al. 2009  |

| Scientific Name   | Common Name  | ELCODE     | G/S Rank | Ecoregions     | W S & P                       | Wetland Type | References   |
|---|--|------------|----------|----------------|-------------------------------|--------------|--|
| <i>Poa secunda</i> - Lomatium cous  | Sandberg bluegrass-cous biscuitroot scabland                       | CEGL001790 | G4S4     | BM, CP         | CA, WA                        |              | Copeland 1980b: 59; Winward and Youtie 1976  |
| <i>Poa secunda</i> - Muhlenbergia richardsonis moist meadow   | sandberg bluegrass - mat muhly                                     | CEGL002755 | GNRS2    | BR             | NV                            | WM           | Weixelman et al. 1996  |
| <i>Poa secunda</i> montane meadow   | Sandberg bluegrass montane meadow                                  | CEGL001657 | G4S4     | BR, EC         | CA?, CO, ID, MT, NV, UT       | WM           | Christy and Cornelius 1980; Boss 1983: 173; Manning and Padgett 1991: 379, 445; Tendick et al. 2011b; Tendick et al. 2011a; Tendick et al. 2010; Peterson 2008; Manning and Padgett 1995; Manning 1988; Coles et al. 2011; Coles et al. 2010; Blackburn et al. 1969a; Bell et al. 2009   |
| <i>Polygonum amphibium</i>  | water smartweed marsh  | CEGL002002 | G5S3     | WV             | BC, CA?, CO, ID, MT, UT, WA + | SD           | Christy and Putera 1993; Kunze 1994: 47; Rodwell 1995b: 56; Christy et al. 1998: 133; Christy 2004: 135; Von Loh et al. 2002; Von Loh 2000; Salas et al. 2010b; Rodwell 1995a; Ramaley 1942; Ramaley 1930; McCain and Christy 2005; Hansen et al. 1995; Hansen et al. 1991; Cooper and Severn 1992; Chappell et al. 1997; Butler et al. 2002 |
| <i>Polytrichum commune</i> Nonvascular Seasonal Pond [Provisional]  | Haircap moss   | OR1125     | G5S4     | EC, WC         |                               | SD           | Christy 2004: 152  |
| <i>Populus tremuloides</i> / <i>Alnus incana</i> - <i>Betula nana</i> - <i>Ribes</i> spp. Riparian Forest | quaking aspen / mountain alder - bog birch - currant               | CEGL001149 | G1S1     | BM             | ID?, WA?                      | FW           | Crowe et al. 2004: 395   |
| <i>Populus tremuloides</i> / <i>Alnus incana</i> - <i>Salix</i> spp.                                      | quaking aspen / mountain alder - willow spp.                       | CEGL001082 | G4S3     | BM             | NV                            | WM           | Smith 1994b; Manning and Padgett 1995; Manning and Padgett 1991; Evans 1989a   |
| <i>Populus tremuloides</i> / <i>Alnus incana</i> Riparian Forest  | Quaking aspen / mountain alder                                     | CEGL001150 | G3S2     | BM, BR, CP, EC |                               | FW           | Crowe et al. 2004: 395; Salas et al. 2005; Kittel et al. 1999b; Crowe and Clausnitzer 1997; Carsey et al. 2003a  |
| <i>Populus tremuloides</i> / <i>Amelanchier alnifolia</i>   | quaking aspen / serviceberry avalanche chute or snowbank shrubland | CEGL005886 | G3?S2    | BM, BR         | AB, MT, WY                    |              | Reid et al. 2004; Hop et al. 2007; Cogan et al. 2005; Allen 2013   |
| <i>Populus tremuloides</i> / <i>Artemisia tridentata</i> var. <i>vaseyana</i>                             | quaking aspen / mountain big sagebrush                             | CEGL000572 | G3G4SU   | BM, BR, EC     | CA, ID, NV, UT, WY            |              | Youngblood and Mueggler 1981; Schulz and Hall 2011; Sawyer et al. 2009; Mueggler 1988; Keeler-Wolf et al. 2012; Keeler-Wolf et al. 2003a; Jones and Ogle 2000; Johnston 1987; Dealy et al. 1981; Dealy 1971; Cogan et al. 2012; Blackburn et al. 1969d; Bell et al. 2009   |
| <i>Populus tremuloides</i> / <i>Betula occidentalis</i> Riparian Forest                                   | Quaking aspen / water birch  | CEGL002650 | G3S2     | BM, BR, CP     |                               | FW           | Crowe et al. 2004: 398; Carsey et al. 2003a; Cogan et al. 2012; Kittel et al. 1999b; Hansen et al. 1995  |
| <i>Populus tremuloides</i> / <i>Calamagrostis canadensis</i>  | quaking aspen / bluejoint reedgrass                                | CEGL000574 | G3S3     | BM, EC         | AB, CO, ID, MT, WA, WY?       | FW           | Crowe and Clausnitzer 1997: 84; Titus et al. 1998; Salas et al. 2010b; Salas et al. 2005; Reid et al. 2004; Powell 1988a; Mutel 1973; Jones and Ogle 2000; Huckaby and Moir 1998; Hop et al. 2007; Hess and Alexander 1986; Hansen et al. 1995; Hansen et al. 1991; Crowe et al. 2004: 388; Boggs et al. 1990; Baker 1984a                   |
| <i>Populus tremuloides</i> / <i>Calamagrostis rubescens</i> forest  | Quaking Aspen / pinegrass  | CEGL000575 | G5?SU    | BM, BR, EC     | AB?, ID, MT, NV?, UT, WA, WY  |              | Youngblood and Mueggler 1981; Williams and Lillybridge 1983; Reid et al. 2004; Mueggler and Campbell 1986; Mueggler and Campbell 1982; Mueggler 1988; Jones and Ogle 2000; Hop et al. 2007; Cooper and Pfister 1981; Cogan et al. 2005; Bell et al. 2009; Bader 1932; Alexander 1986   |
| <i>Populus tremuloides</i> / <i>Carex aquatilis</i> var. <i>aquatilis</i>                                 | quaking aspen / aquatic sedge                                      | CEGL003442 | G1S1     | BM, CP         | WA?                           | FW           | Crowe and Clausnitzer 1997: 84; Titus et al. 1998; Crowe et al. 2004: 384; Hall 1973   |
| <i>Populus tremuloides</i> / <i>Carex obnupta</i>   | quaking aspen / slough sedge                                       | CEGL003371 | G2S1     | WV             | BC, WA                        | FW           | Christy 2001a: 14; Christy 2004: 33; Rocchio et al. 2012; McCain and Christy 2005  |
| <i>Populus tremuloides</i> / <i>Carex pellita</i>   | quaking aspen / woolly sedge                                       | CEGL000577 | G2S2     | BM, BR, EC     | CA?, NV?, WA                  | FW           | Kovalchik 1993: 80; Crowe and Clausnitzer 1997: 78; Titus et al. 1998; Crowe et al. 2004: 385; Padgett 1982  |

| Scientific Name   | Common Name                                     | ELCODE     | G/S Rank | Ecoregions     | W S & P                               | Wetland Type | References   |
|---|---|------------|----------|----------------|---------------------------------------|--------------|--|
| <i>Populus tremuloides</i> / <i>Cornus sericea</i>  | quaking aspen / creek dogwood                   | CEGL000582 | G4S3     | BM, BR, CP, EC | AB, CA?, CO, ID, MT, UT, WA, WY       | FW           | Kovalchik 1993: 80, 88; Crowe and Clausnitzer 1997: 84; Titus et al. 1998; Salas et al. 2010b; Richard et al. 1996; Reid et al. 2004; Padgett et al. 1989; Manning and Padgett 1995; Kovalchik 2001; Kovalchik 1993; Kittel et al. 1999b; Kittel et al. 1999a; Kittel et al. 1994; Jankovsky-Jones et al. 2001; Hop et al. 2007; Hansen et al. 1995; Hansen et al. 1991; Hansen et al. 1990; Friesen et al. 2010; Evans 1989a; Crowe et al. 2004: 396; Crawford 2003; Crawford 2001; Carsey et al. 2003a   |
| <i>Populus tremuloides</i> / <i>Crataegus douglasii</i> / <i>Heracleum maximum</i> wet shrubland    | (Quaking aspen) / hawthorn / cow parsnip        | CEGL001094 | G1S1     | CP             | ID, WA                                | FW           | Daubenmire 1970; Crawford 2003   |
| <i>Populus tremuloides</i> / <i>Crataegus douglasii</i> / <i>Symphoricarpos albus</i> wet shrubland | (Quaking aspen) / hawthorn / snowberry          | CEGL001096 | G3S2     | BM, CP         | CA?, ID, WA                           | FW           | Daubenmire 1970; Crowe and Clausnitzer 1997; Crawford 2003; Crowe et al. 2004: 180; Wells 2006: 110, 112   |
| <i>Populus tremuloides</i> / <i>Elymus glaucus</i>  | quaking aspen / blue wildrye                    | CEGL000846 | G5S3     | BM, EC         | AZ, UT                                | FW           | Kovalchik 1987: 61; Titus et al. 1998; Youngblood and Mauk 1985; Wright et al. 1979; West and Hassan 1985; Thomas et al. 2010; Tendick et al. 2011b; Stuever and Hayden 1997a; Romme et al. 1993; Roberts et al. 1992; McMurray 1986a; Larson and Moir 1987; Johnston 1987; DeVelice et al. 1986; Cogan et al. 2004; Clark et al. 2009   |
| <i>Populus tremuloides</i> / <i>Prunus virginiana</i>   | quaking aspen / chokecherry                     | CEGL000596 | G3G4S3   | EC             | CO, ID, MT, UT, WY +                  | FW           | Youngblood and Mueggler 1981; Von Loh et al. 2007; Titus et al. 1998; Tendick et al. 2010; Severson and Thilenius 1976; Salas et al. 2005; Salas and Pucherelli 1998b; Mueggler and Campbell 1986; Mueggler 1988; Marriott et al. 1999; Marriott and Faber-Langendoen 2000; Komarkova et al. 1988b; Johnston 1987; Hoffman and Alexander 1987; Hansen et al. 1995; Girard et al. 1997; Girard 1991; Crowe et al. 2004: 399; Coles et al. 2010; Coles et al. 2008a; Cogan et al. 1999; Coenenberg and Deput 1979; Caicco et al. 1995; Bell et al. 2009  |
| <i>Populus tremuloides</i> / <i>Salix scouleriana</i>   | quaking aspen / Scouler willow                  | CEGL000604 | G4S2     | BR             | CO, ID, NV, UT, WY                    | FW           | Evenden 1990: 18; Manning and Padgett 1991: 112 - 118; Titus et al. 1998; Salas et al. 2010b; Mueggler 1988; Cogan et al. 2005   |
| <i>Populus tremuloides</i> / <i>Symphoricarpos albus</i>  | quaking aspen / common snowberry                | CEGL000609 | G3S2     | BM, BR, EC     | MT, WA, WY                            | FW           | Weixelman et al. 1996; Titus et al. 1998; Sawyer et al. 2009; Reid et al. 2004; Kovalchik 2001; Kovalchik 1987; Hop et al. 2007; Erixson et al. 2011b; Crowe et al. 2004; Crowe and Clausnitzer 1997; Crawford 2003; Crawford 2001; Cooper and Pfister 1981; Cogan et al. 2005; Crowe et al. 2004: 401   |
| <i>Populus tremuloides</i> / <i>Symphoricarpos albus</i> / <i>Elymus glaucus</i> Woodland           | Quaking aspen / common snowberry / blue wildrye | CEGL000946 | G3S2     | BM, BR, EC     |                                       | FW           | Crowe et al. 2004: 404; Manning and Padgett 1995; Weixelman et al. 1999  |
| <i>Populus tremuloides</i> / <i>Symphoricarpos oreophilus</i>                                       | quaking aspen / mountain snowberry              | CEGL000610 | G5S2     | BR, EC         | AZ?, CO, ID, MT, NM, NV, UT, WA, WY + |              | Youngblood and Mueggler 1981; Titus et al. 1998; Tendick et al. 2011b; Tendick et al. 2010; Schulz and Hall 2011; Salas et al. 2010b; Romme et al. 1993; Reed 1971; Mueggler 1988; Lewis 1975a; Kovalchik 1987; Komarkova et al. 1988a; Keammerer and Stoecker 1980; Keammerer and Stoecker 1975; Keammerer and Peterson 1981; Jones and Ogle 2000; Johnston and Hendzel 1985; Johnston 1987; Hoffman and Alexander 1983; Hoffman and Alexander 1980; Hess and Wasser 1982; Ferchau 1973; Dorn 1969; Day and Wright 1985; Coles et al. 2010; Coles et al. 2008a; Cogan et al. 2012; Clark et al. 2009; Boyce 1977; Bell et al. 2009; Baker 1982b |

| Scientific Name   | Common Name  | ELCODE     | G/S Rank | Ecoregions     | W S & P                | Wetland Type | References   |
|---|--|------------|----------|----------------|------------------------|--------------|--|
| <i>Populus tremuloides</i> / tall forbs Forest  | Quaking aspen / tall forbs   | CEGL000618 | G5S3     | BM, BR, CP, EC |                        | FW           | Crowe et al. 2004: 406; Youngblood and Mueggler 1981; Mueggler and Campbell 1986; Mueggler 1988; Kittel et al. 1999b; Carsey et al. 2003a; Bell et al. 2009  |
| <i>Populus tremuloides</i> / <i>Veratrum californicum</i>   | quaking aspen / California hellebore   | CEGL000621 | G3?S2    | BR, EC         | CA, CO, ID, NV, UT     | FW           | Sawyer et al. 2009; Potter 1998; Padgett et al. 1989; Padgett et al. 1988b; Mueggler and Campbell 1986; Mueggler 1988; Keeler-Wolf et al. 2012; Keeler-Wolf et al. 2003a; Keeler-Wolf 2002; Johnston and Hendzel 1985; Hoffman and Alexander 1980  |
| <i>Populus trichocarpa</i> - <i>Acer macrophyllum</i> / <i>Equisetum hyemale</i>  | black cottonwood - bigleaf maple / Dutch rush                                      | CEGL003406 | G3S3     | WV             | WA                     | FW           | Titus et al. 1996; McCain 2004: 256  |
| <i>Populus trichocarpa</i> - <i>Acer macrophyllum</i> / <i>Symphoricarpos albus</i>   | black cottonwood - bigleaf maple / common snowberry                                | CEGL003363 | G3S3     | WV             | BC?, WA                | FW           | Titus et al. 1996  |
| <i>Populus trichocarpa</i> - <i>Alnus rhombifolia</i>   | black cottonwood - white alder   | CEGL000668 | G1S1     | BM, BR, CP, WV | WA                     | FW           | Daubenmire 1970: 60; Titus et al. 1998; Holmstead 2001; Evans 1989a; Crowe et al. 2004: 331; Crowe and Clausnitzer 1997  |
| <i>Populus trichocarpa</i> - <i>Alnus rubra</i> / <i>Rubus spectabilis</i>  | black cottonwood - red alder / salmonberry   | CEGL003407 | G2G3S2   | WV             | BC?, WA                | FW           | McCain 2004: 269; McCain and Christy 2005: 174   |
| <i>Populus trichocarpa</i> - <i>Alnus rubra</i> / <i>Symphoricarpos albus</i>   | black cottonwood - red alder / common snowberry                                    | CEGL003362 | G3S3     | WV             | BC?, WA                | FW           | Titus et al. 1996  |
| <i>Populus trichocarpa</i> - <i>Picea sitchensis</i> - ( <i>Acer macrophyllum</i> ) / <i>Oxalis oregana</i> riparian forest | Black Cottonwood - Sitka spruce - (bigleaf maple) / redwood sorrel riparian forest | CEGL003418 | G2G3S2   | CR             | WA                     | FW           | Fonda 1974; Crawford et al. 2009; Chappell 1999  |
| <i>Populus trichocarpa</i> / <i>Acer glabrum</i> Riparian Forest [Provisional]  | Black cottonwood / mountain maple  | OR1126     | G2S2     | BR             |                        | FW           | Crowe and Clausnitzer 1997: 92; Kovalchik 1993: 80; Titus et al. 1998; Jankovsky-Jones et al. 2001; Crowe et al. 2004: 345   |
| <i>Populus trichocarpa</i> / <i>Alnus incana</i>  | black cottonwood / mountain alder  | CEGL000667 | G3S2     | BM, BR, EC     | ID, WA                 | FW           | Kauffman 1982: 60, 61; Kauffman et al. 1985: 17; Kovalchik 1987: 136; Kovalchik 1993: 84, 86; McNeil 1975: 85; Ferro et al. 1976: 13; Crowe and Clausnitzer 1997: 90; Titus et al. 1998; Crowe et al. 2004: 339, 349, 350; Wells 2006:64   |
| <i>Populus trichocarpa</i> / <i>Betula occidentalis</i> - <i>Salix</i> spp  | black cottonwood / western birch - willow  | CEGL003282 | G3S2     | BM, BR, CP     | AK                     | FW           | Manning and Padgett 1991: 86, 90, 137; Crowe et al. 2004: 335  |
| <i>Populus trichocarpa</i> / <i>Cicuta douglasii</i> riparian forest  | Black Cottonwood / western water-hemlock riparian forest                           | CEGL000671 | G1S1     | CR, WC, WV     | ID, WA                 | FW           | Evans 1989a; Daubenmire 1970;  |
| <i>Populus trichocarpa</i> / <i>Cornus sericea</i>  | black cottonwood / creek dogwood   | CEGL000672 | G3S3     | BM, BR, CP, EC | AB, CA, ID, MT, WA, WY | FW           | Walford et al. 2001; Titus et al. 1998; Reid et al. 2004; Manning and Padgett 1991; Kovalchik 1993; Kovalchik 1987; Hop et al. 2007; Hansen et al. 1995; Hansen et al. 1991; Hall and Hansen 1997; Evans 1989a; Crowe et al. 2004; Crawford et al. 2009; Crawford 2003; Cogan et al. 2005; Caicco 1988 |
| <i>Populus trichocarpa</i> / <i>Cornus sericea</i> / <i>Carex deweyana</i> ssp. <i>leptopoda</i>                            | black cottonwood / creek dogwood / Dewey sedge                                     | CEGL003408 | G1S1     | CR, WV         | WA                     | FW           | Christy and Putera 1993: 41; Kunze 1994: 60; Christy 2004: 32  |
| <i>Populus trichocarpa</i> / <i>Cornus sericea</i> / <i>Carex obnupta</i> riparian forest                                   | Black Cottonwood / red-osier dogwood / slough sedge riparian forest                | CEGL002844 | GNRS2?   | CR, WV         | BC, WA                 | FW           | Rocchio et al. 2012; Meidinger et al. 2005; Green and Klinka 1994; Brown and Hebda 1999  |
| <i>Populus trichocarpa</i> / <i>Cornus sericea</i> / <i>Impatiens capensis</i> Riparian Forest                              | Black cottonwood / creek dogwood / skunk cabbage - orange jewelweed                | CEGL003408 | G1S1     | CR, WV         | WA                     | FW           | Christy 2004: 32; Kunze 1994; Christy and Putera 1993  |
| <i>Populus trichocarpa</i> / <i>Crataegus douglasii</i>   | black cottonwood / black hawthorn  | CEGL000673 | G1S1     | BM, CP, EC     | ID, WA?                | FW           | Kauffman 1982; Kauffman et al. 1985: 17; Titus et al. 1998; Crowe et al. 2004: 337   |
| <i>Populus trichocarpa</i> / <i>Philadelphus lewisii</i> Riparian Forest [Provisional]                                      | black cottonwood / mockorange  | OR0019     | G3S3     | BM, BR, CP, EC | ID, WA?                | FW           | Titus et al. 1998; Crowe et al. 2004: 333  |
| <i>Populus trichocarpa</i> / <i>Salix exigua</i>  | black cottonwood / coyote willow   | CEGL000676 | G1S1     | BM, BR, CP     | CA?, ID?, NV?, WA      | FW           | Manning and Padgett 1991: 141; Titus et al. 1998; Sawyer and Keeler-Wolf 1995; Poulton 1955; Peterson 2008; Manning and Padgett 1995; Manning and Padgett 1992; Erixson et al. 2011b; Erixson et al. 2011a; Crawford 2003  |

| Scientific Name   | Common Name  | ELCODE     | G/S Rank | Ecoregions         | W S & P                          | Wetland Type | References   |
|---|--|------------|----------|--------------------|----------------------------------|--------------|--|
| <i>Populus trichocarpa</i> / <i>Salix lasiandra</i> var. <i>caudata</i> Riparian Woodland         | Black cottonwood / greenleaf willow                | CEGL003431 | G2S2     | BM                 |                                  | FW           | Crowe et al. 2004: 325, 328; Crawford 2001; Crowe and Clausnitzer 1997; Hansen et al. 1995; Jankovsky-Jones et al. 2001; Kovalchik 2001; Manning and Padgett 1995; Moseley 1998  |
| <i>Populus trichocarpa</i> / <i>Salix lasiolepis</i> Riparian forest [Provisional]                | Black cottonwood / arroyo willow                   | OR1129     | G3S1     | BR                 |                                  | FW           | Crowe et al. 2004: 327   |
| <i>Populus trichocarpa</i> / <i>Salix lucida</i> ssp. <i>caudata</i>                              | black cottonwood / Pacific willow riparian         | CEGL003431 | G2S2     | BM                 | BC?, ID, WA                      | FW           | Crowe and Clausnitzer 1997: 88; Moseley 1998: 16; Titus et al. 1998; Moseley 1998; Manning and Padgett 1995; Kovalchik 2001; Jankovsky-Jones et al. 2001; Hansen et al. 1995; Crowe et al. 2004; Crowe et al. 2002; Crawford 2001  |
| <i>Populus trichocarpa</i> / <i>Symphoricarpos albus</i>  | black cottonwood / snowberry                       | CEGL000677 | G2S2     | BM, CP, EC, WC     | BC?, ID, MT, WA, WY              | FW           | Poulton 1955: 87; Kauffman 1982: 61; Kauffman et al. 1985: 17; Kovalchik 1987: 136; Crowe and Clausnitzer 1997: 94; Moseley 1998: 17; Titus et al. 1998; Murray 2000: 44; Crowe et al. 2004: 346; Wells 2006: 66   |
| <i>Populus trichocarpa</i> alluvial bar   | black cottonwood alluvial bar                      | OR0020     | G4S4     | BM, BR, CP, EC     | CA, ID, WA                       | FW           | Crowe et al. 2004: 325; Manning and Padgett 1995; Hansen et al. 1995; Thompson and Hansen 2002; Jankovsky-Jones et al. 2001; Holmstead 2001; Kovalchik 2001  |
| <i>Potamogeton diversifolius</i>  | diverse-leaved pondweed bed                        | CEGL002007 | G4S3     | EC                 | CO                               | AB           | Kovalchik 2001; Jankovsky-Jones et al. 2001; Galatowitsch and Bourgeron 1985; Crowe et al. 2004: 72; Boggs 2000; Titus et al. 1998   |
| <i>Potamogeton gramineus</i> Aquatic Vegetation [Provisional]                                     | Variable pondweed                                  | OR1130     | G5S5     | ALL                |                                  | AB           | Crowe et al. 2004: 72  |
| <i>Potamogeton natans</i>   | floating-leaved pondweed bed                       | CEGL002925 | G5S5     | CR, EC, KM, WC, WV | BC, CA?, CO, ID, WA              | AB           | Kunze 1994: 23; Rodwell 1995b: 53; Titus and Christy 1996a; Titus and Christy 1996b; Christy et al. 1998: 136; Titus et al. 1998; Murray 2000: 24; Christy 2004: 136; Crowe et al. 2004: 73  |
| <i>Potentilla anserina</i> ssp. <i>pacifica</i> - <i>Juncus balticus</i> Salt Marsh               | Pacific silverweed - Baltic rush high salt marsh   | CEGL003382 | G3S2     | CR                 | BC?, WA                          | SM           | Frenkel et al. 1978: 57, 75, 82, 99; Frenkel et al. 1981: 200; Mitchell 1981: 112, 113; Frenkel and Boss 1988: 39; Dethier 1990: 37; Viereck et al. 1992: 194; Christy et al. 1998: 126  |
| <i>Potentilla anserina</i> ssp. <i>pacifica</i> - <i>Symphotrichum subspicatum</i> Brackish Marsh | Pacific silverweed - Douglas aster high salt marsh | CEGL003288 | G3S2     | CR                 | BC?, WA                          | SM           | Eilers 1975a: 256, 258; Eilers 1976: 27; Taylor and Frenkel 1979: 78; Taylor 1980: 75; Mitchell 1981: 112, 113; Frenkel and Boss 1988: 39; Dethier 1990: 38  |
| <i>Potentilla rivalis</i> Marsh [Provisional]   | Brook cinquefoil                                   | OR1131     | G3S2     | BR                 |                                  | FM           | Christy 2013: 45   |
| <i>Prunus emarginata</i> montane chaparral shrubland  | bitter cherry chaparral shrubland                  | CEGL005822 | G3?S1    | BR                 | CA                               |              | Keeler-Wolf et al. 2012  |
| <i>Prunus virginiana</i> - ( <i>Prunus americana</i> )  | chokecherry- (American plum) wet shrubland         | CEGL001108 | G4QS2    | BM, CP             | CO, ID, MT, NM, NV, UT, WA, WY + | SS           | Von Loh et al. 1999; Thomas et al. 2009b; Tendick et al. 2011b; Tendick et al. 2010; Stevens et al. 2015; Schulz and Hall 2011; Salas et al. 2010b; Rice et al. 2012b; Owns et al. 2004; Osborn et al. 1998; Muldavin et al. 2012a; Manning and Padgett 1995; Kudray et al. 2004; Kovalchik 1987; Kittel et al. 1999b; Kittel et al. 1996; Jones and Walford 1995; Jones 1992b; Johnston 1987; Hansen et al. 1995; Hansen et al. 1991; Hansen et al. 1988b; Hall and Hansen 1997; Friesen et al. 2010; Evans 1989b; Evans 1989a; Erixson and Cogan 2012c; Copeland 1980a; Cooper et al. 2001; Coles et al. 2010; Coles et al. 2008a; Cogan et al. 2005; Cogan et al. 1999; Carsey et al. 2003a; Caicco and Wellner 1983n; Caicco and Wellner 1983a |
| <i>Prunus virginiana</i> - Mixed shrub Talus shrubland  | chokecherry - mixed shrub talus shrubland          | CEGL005444 | GNR53    | BM, BR, CP, EC     | NV                               |              | Schulz and Hall 2011; DiPaolo et al. 2015; Cogan et al. 2012   |
| <i>Prunus virginiana</i> / <i>Leymus cinereus</i> shrubland                                       | Chokecherry / basin wildrye shrubland              | CEGL005606 | GNR51    | BR                 | CA, CO, ID, MT, WA, WY           |              | Bell et al. 2009   |

| Scientific Name   | Common Name   | ELCODE     | G/S Rank | Ecoregions     | W S & P                         | Wetland Type | References   |
|---|---|------------|----------|----------------|---------------------------------|--------------|--|
| Pseudoroegneria spicata - Balsamorhiza sagittata - Poa secunda  | bluebunch wheatgrass - arrowleaf balsamroot - Sandberg bluegrass canyon | CEGL001662 | G3S3     | BM, CP, EC     | ID, WA, WY                      |              | Poulton 1955; Daubenmire 1970; Ganskopp 1979; Johnson and Simon 1987: 69; Tisdale 1986; Stevens et al. 2015; Rust 1997a; Johnson and Simon 1985; Johnson and Clausnitzer 1992; Ganskopp 1979; Erixson et al. 2011b; Cogan et al. 2005; Bell et al. 2009      |
| Pseudoroegneria spicata - Eriogonum heracleoides  | bluebunch wheatgrass - Wyeth buckwheat                                  | CEGL001668 | G2QSU    | BM, CP, EC     | ID, WA                          |              | Johnson and Simon 1987: 87; Mueggler and Harris 1969; Johnson and Simon 1987; Johnson and Simon 1985; Ganskopp 1979; Erixson et al. 2011b  |
| Pseudoroegneria spicata - Festuca idahoensis canyon   | bluebunch wheatgrass - Idaho fescue canyon                              | CEGL001669 | G3S2     | BM, CP, EC     | ID, WA                          |              | Poulton 1955; Hall 1973: 9-12, 47; Ganskopp 1979; Tisdale 1979: 6; Copeland 1980a: 56; Johnson and Simon 1987: 59-68, 74-78  |
| Pseudoroegneria spicata - Festuca idahoensis palouse  | bluebunch wheatgrass - Idaho fescue palouse                             | CEGL001670 | G1S1     | CP             | ID, WA                          |              | Poulton 1955; Tisdale 1986; Johnson and Simon 1987; Johnson and Clausnitzer 1992; Hall 1973; Daubenmire 1970; Anderson 1956  |
| Pseudoroegneria spicata - Hesperostipa comata   | bluebunch wheatgrass - needle-and-thread                                | CEGL001679 | G4S1     | CP             | MT, NV, UT, WY                  |              | Poulton 1955; Williams 1961; Tweit and Houston 1980; Stevens et al. 2015; Schulz and Hall 2011; Poulton 1955; Mueggler and Stewart 1980; Jones and Ogle 2000; Johnston 1987; Hyde 1964; Daubenmire 1970; Coles et al. 2011; Cogan et al. 2012; Anderson 1956 |
| Pseudoroegneria spicata - Opuntia polyacantha - (Poa secunda)   | bluebunch wheatgrass - plains pricklypear - Sandberg bluegrass          | CEGL001673 | G3S3     | BM, CP         | ID, WA                          |              | Tisdale 1979: 7; Johnson and Simon 1987: 121   |
| Pseudoroegneria spicata - Poa secunda lithosol  | bluebunch wheatgrass - Sandberg bluegrass lithosol                      | CEGL001678 | G3S3     | BM, CP         | ID, WA                          |              | Poulton 1955; Daubenmire 1970; Hall 1973: 9-12, 47; Ganskopp 1979: 49, 51, 98; Tisdale 1979: 7; Copeland 1980a: 53; Day and Wright 1985: 4; Johnson and Simon 1987: 92-120, 134  |
| Pseudoroegneria spicata - Poa secunda Palouse   | bluebunch wheatgrass - Sandberg bluegrass Palouse                       | CEGL001677 | G4?S1    | CP             | BC?, CO, ID, MT, NV, UT, WA, WY |              | Poulton 1955; Daubenmire 1970  |
| Pseudoroegneria spicata - Sporobolus cryptandrus - Aristida purpurea  | bluebunch wheatgrass - sand dropseed - red threeawn                     | CEGL001589 | G2S2     | BM             | WA                              |              | Johnson and Simon 1987: 126  |
| Pseudotsuga menziesii - (Alnus rubra, Tsuga heterophylla) / Rubus spectabilis                                 | Douglas-fir (red alder, western hemlock) / salmonberry                  | CEGL005534 | GNR54    | CR             | WA                              |              | Hemstrom and Logan 1986: 97, 99; McCain and Diaz 2002a   |
| Pseudotsuga menziesii - (Tsuga heterophylla) / Acer circinatum - Corylus cornuta / Polystichum munitum forest | Douglas-fir - western hemlock / vine maple - hazel / swordfern          | CEGL007351 | GNR53    | CR, WV, WC     | WA                              |              | Meidinger et al. 2005  |
| Pseudotsuga menziesii - Abies grandis / Acer circinatum / Polystichum munitum                                 | Douglas-fir - grand fir / vine maple / sword fern                       | CEGL005631 | GNR53    | CR, WC, WV     | WA                              |              | McCain and Diaz 2002a; McCain and Diaz 2002b   |
| Pseudotsuga menziesii - Abies grandis / Corylus cornuta / Polystichum munitum forest                          | Douglas-fir - grand Fir / Beaked Hazelnut / western swordfern           | CEGL005632 | GNR52    | CR, EC, WC, WV | WA                              |              | Meidinger et al. 2005; Chappell 2006b; Chappell 2001; Chappell 1997; McCain and Diaz 2002b   |
| Pseudotsuga menziesii - Abies grandis / Mahonia nervosa - Anemone deltoidea forest                            | Douglas-fir - grand fir / dwarf Oregongrape / three-leaved anemone      | CEGL005633 | GNR53    | WC             |                                 |              | McCain and Diaz 2002b  |
| Pseudotsuga menziesii - Abies grandis / Mahonia nervosa - Gaultheria shallon                                  | Douglas-fir - grand fir / dwarf Oregongrape - salal                     | CEGL005634 | GNR53    | CR, WC, WV     | WA                              |              | McCain and Diaz 2002a; McCain and Diaz 2002b; Crawford et al. 2009   |
| Pseudotsuga menziesii - Abies grandis / Toxicodendron diversilobum - Polystichum munitum forest               | Douglas-fir - grand Fir / Pacific poison-oak - western swordfern        | CEGL005640 | G3G4S3   | EC, KM, WC     |                                 |              | Meidinger et al. 2005  |
| Pseudotsuga menziesii - Abies lowiana - Calocedrus decurrens forest   | Douglas-fir - white Fir - Incense-cedar                                 | CEGL005813 | G3?S3    | KM             | CA                              |              | Odion et al. 2013; Keeler-Wolf et al. 2012; Keeler-Wolf et al. 2003a; Fites 1993   |
| Pseudotsuga menziesii - Abies lowiana - Umbellularia californica / Polystichum munitum forest                 | Douglas-fir - white Fir - California Laurel / western swordfern         | CEGL005630 | GNR53    | KM             |                                 |              | Meidinger et al. 2005  |

| Scientific Name   | Common Name  | ELCODE     | G/S Rank | Ecoregions         | W S & P     | Wetland Type | References   |
|---|--|------------|----------|--------------------|-------------|--------------|--|
| Pseudotsuga menziesii - Abies lowiana / Holodiscus discolor / Polystichum munitum forest  | Douglas-fir - white Fir / Oceanspray / western swordfern                               | CEGL007396 | G3G4S3   | EC, KM, WC         |             |              | Meidinger et al. 2005  |
| Pseudotsuga menziesii - Abies lowiana / Polystichum munitum forest  | Douglas-fir - white Fir / western swordfern  | CEGL005629 | G4S3     | KM                 |             |              | Meidinger et al. 2005  |
| Pseudotsuga menziesii - Arbutus menziesii - Quercus / Toxicodendron diversilobum  | Douglas-fir - Pacific madrone - oak / poison oak                                       | CEGL000927 | G3G4S3   | CR, EC, KM, WC, WV | CA?         |              | Klinka et al. 1996: 151; McCain and Diaz 2002a   |
| Pseudotsuga menziesii - Chrysolepis chrysophylla var. chrysophylla / Rhododendron macrophyllum                                    | Douglas-fir / western rhododendron   | CEGL000071 | G4S3     | KM, WC             | CA?         |              | Atzet and Wheeler 1984: 215; Jimerson et al. 1995: C-107,111,115,119,123,127,131   |
| Pseudotsuga menziesii - Notholithocarpus densiflorus - (Chamaecyparis lawsoniana) / (Vaccinium ovatum) - Rhododendron occidentale | Douglas-fir - tan oak - (Port Orford cedar) / (evergreen huckleberry) - western azalea | CEGL000077 | G3S3     | KM                 | CA          |              | Atzet and Wheeler 1984; Sawyer et al. 2009   |
| Pseudotsuga menziesii - Pinus lambertiana - Abies concolor / Arctostaphylos nevadensis  | Douglas-fir - sugar pine - white fir / pinemat manzanita                               | OR0021     | G2?S2    | KM                 | CA?         |              | Atzet et al. 1996  |
| Pseudotsuga menziesii - Pinus ponderosa - Calocedrus decurrens forest   | Douglas-fir - Ponderosa pine - incense cedar   | CEGL008684 | G3S3     | EC                 | CA          |              | Titus et al. 1998  |
| Pseudotsuga menziesii - Quercus chrysolepis forest  | Douglas-fir - canyon live oak  | CEGL005814 | G3G4S2   | KM                 | CA          |              | Taylor and Teare 1979a; Sawyer et al. 2009; Odion et al. 2013; Keeler-Wolf et al. 2012; Keeler-Wolf et al. 2003a   |
| Pseudotsuga menziesii - Quercus garryana / Symphoricarpos albus   | Douglas-fir - Oregon white oak / common snowberry                                      | CEGL000929 | G3S3     | CR, WV, EC, KM, WC | CA, WA      |              | Thilenius 1968: 1128; Jimerson et al. 1996: C-48   |
| Pseudotsuga menziesii - Quercus garryana / Toxicodendron diversilobum   | Douglas-fir - Oregon white oak / poison oak  | CEGL000928 | G3SU     | KM, WC             | CA, WA      |              | Atzet and McCrimmon 1990: 318; Riegel et al. 1992: 70  |
| Pseudotsuga menziesii - Tsuga heterophylla / (Acer circinatum) / Polystichum munitum  | Douglas-fir - western hemlock / vine maple / sword fern                                | CEGL005542 | G4S3     | CR, WC             | BC, CA?, WA |              | Hawk 1973: 42; Dyrness et al. 1974a: 33; Hemstrom and Logan 1986: 105; Atzet and McCrimmon 1990: 187; McCain and Diaz 2002a; McCain and Diaz 2002b   |
| Pseudotsuga menziesii - Tsuga heterophylla / Achlys triphylla forest  | Douglas-fir - western hemlock / vanilla leaf   | CEGL005535 | G4S3     | CR, WC             | WA          |              | Halverson et al. 1986: 56, 58; Topik et al. 1986: 90; Hemstrom et al. 1987: 242; McCain and Diaz 2002a; Hemstrom et al. 1987: 198; Atzet and McCrimmon 1990: 159   |
| Pseudotsuga menziesii - Tsuga heterophylla / Gaultheria shallon - Mahonia nervosa forest  | Douglas-fir - western hemlock / salal - dwarf Oregon grape                             | CEGL005538 | G4S4     | KM, WC             | BC, WA      |              | Hemstrom et al. 1987: 86; Atzet and McCrimmon 1990: 130, 138; Topik et al. 1986; Meidinger et al. 2005; McCain and Diaz 2002b; McCain and Diaz 2002a; Henderson et al. 1992; Henderson et al. 1989; Hemstrom and Logan 1986; Hawk 1973; Halverson et al. 1986; Green and Klinka 1994; Crawford et al. 2009; Chappell 2006b                               |
| Pseudotsuga menziesii - Tsuga heterophylla / Gaultheria shallon - Vaccinium parvifolium forest                                    | Douglas-fir - western hemlock / salal - red huckleberry                                | CEGL005539 | GNRS4    | KM, WC             | BC, CA, WA  |              | Hemstrom et al. 1987: 86; Atzet and McCrimmon 1990: 130, 138; Topik et al. 1986; Meidinger et al. 2005; Kagan et al. 2012; Henderson et al. 1989; Henderson et al. 1986; Fonda and Bernardi 1976; del Moral and Long 1977; Crawford et al. 2009; Agee and Wasem 1987   |
| Pseudotsuga menziesii - Tsuga heterophylla / Gaultheria shallon / Polystichum munitum forest                                      | Douglas-fir - western hemlock / salal / sword fern                                     | CEGL005536 | G4G5S4   | KM, WC             | BC, WA      |              | Hemstrom et al. 1987: 86, 234; Atzet and McCrimmon 1990: 130, 138; Topik et al. 1986; Meidinger et al. 2005; Kojima and Krajina 1975; Kagan et al. 2012; Henderson et al. 1989; Henderson et al. 1986; Hemstrom et al. 1987; Hemstrom and Logan 1986; Crawford et al. 2009; Copass and Ramm-Granberg 2016a; Chappell 2006b; Chappell 2001; Chappell 1997 |
| Pseudotsuga menziesii - Tsuga heterophylla / Holodiscus discolor  | Douglas-fir - western hemlock / oceanspray   | CEGL000067 | G3S3     | KM, WC             |             |              | Halverson et al. 1986: 66; Dyrness et al. 1974a: 13; Hemstrom et al. 1987: 62, 66; Topik et al. 1988: 59; McCain and Diaz 2002a; McCain and Diaz 2002b   |

| Scientific Name  | Common Name  | ELCODE     | G/S Rank | Ecoregions | W S & P     | Wetland Type | References  |
|--|--|------------|----------|------------|-------------|--------------|---|
| <i>Pseudotsuga menziesii</i> - <i>Tsuga heterophylla</i> / <i>Holodiscus discolor</i> / <i>Polystichum munitum</i> forest                                | Douglas-fir - western Hemlock / Oceanspray / western swordfern                             | CEGL005540 | G3S3     | EC, WC     | BC, WA      |              | Hemstrom et al. 1987: 234; Topik et al. 1986; Meidinger et al. 2005; Kojima and Krajina 1975; Henderson et al. 1986; Hemstrom et al. 1987; Green and Klinka 1994; Chappell 2006b  |
| <i>Pseudotsuga menziesii</i> - <i>Tsuga heterophylla</i> / <i>Mahonia nervosa</i> - <i>Polystichum munitum</i> forest                                    | Douglas-fir - western hemlock / vine maple - dwarf Oregongrape / sword fern - oxalis       | CEGL005543 | G4S3     | CR, WC     | BC, CA?, WA |              | Halverson et al. 1986: 64; Topik et al. 1986: 84; Henderson et al. 1992: 34; Hemstrom et al. 1987: 234  |
| <i>Pseudotsuga menziesii</i> - <i>Tsuga heterophylla</i> / <i>Mahonia nervosa</i> / <i>Tiarella trifoliata</i> forest                                    | Douglas-fir - western Hemlock / Cascade barberry / threelobed foamflower                   | CEGL007288 | G3S3     | CR, WC     | WA          |              | Meidinger et al. 2005   |
| <i>Pseudotsuga menziesii</i> - <i>Tsuga heterophylla</i> / <i>Mahonia nervosa</i> var. <i>nervosa</i>  | Douglas-fir - western hemlock / dwarf Oregongrape  | CEGL005541 | G4S3     | CR, KM, WC | BC?, WA     |              | Hemstrom et al. 1987: 78; Williams and Smith 1990; Topik et al. 1986; Meidinger et al. 2005; McCain and Diaz 2002b; McCain and Diaz 2002a; Klinka et al. 1996; Henderson et al. 1992; Henderson et al. 1989; Henderson et al. 1986; Henderson and Peter 1984; Henderson and Peter 1983; Henderson and Peter 1982; Henderson and Peter 1981; Henderson 1981; Hemstrom and Logan 1986; Halverson et al. 1986; Crawford et al. 2009; Chappell 2006b; Chappell 1997 |
| <i>Pseudotsuga menziesii</i> - <i>Tsuga heterophylla</i> / <i>Polystichum munitum</i> - <i>Oxalis oregana</i> forest                                     | Douglas-fir - western hemlock / sword fern   | CEGL005568 | G3G4S3   | CR, WC     | CA, WA      |              | Dyrness et al. 1974a: 36; Halverson et al. 1986: 75; Topik et al. 1986: 76  |
| <i>Pseudotsuga menziesii</i> - <i>Tsuga heterophylla</i> / <i>Rhododendron macrophyllum</i>  | Douglas-fir - western hemlock / western rhododendron                                       | CEGL000086 | G3S3     | KM, WC     |             |              | Atzet and Wheeler 1984: 118; Hemstrom et al. 1987: 82; McCain and Diaz 2002b; Atzet and McCrimmon 1990: 196   |
| <i>Pseudotsuga menziesii</i> - <i>Tsuga heterophylla</i> / <i>Rhododendron macrophyllum</i> - <i>Corylus cornuta</i> / <i>Polystichum munitum</i> forest | Douglas-fir - western Hemlock / Pacific rhododendron - Beaked Hazelnut / western swordfern | CEGL007289 | G4S4     | CR, WC     |             |              | Moir et al. 1973b: 9; Dyrness et al. 1974a: 22, 24; Halverson et al. 1986: 77-83; Hemstrom et al. 1982: 49; Hemstrom and Logan 1986: 85, 89, 91; Hemstrom et al. 1987: 206-226; Atzet and McCrimmon 1990: 117, 122, 126; McCain and Diaz 2002a  |
| <i>Pseudotsuga menziesii</i> - <i>Tsuga heterophylla</i> / <i>Rhododendron macrophyllum</i> / <i>Polystichum munitum</i> forest                          | Douglas-fir - western Hemlock / Pacific rhododendron / western swordfern                   | CEGL005545 | G3G4QS3  | CR, WC     | WA          |              | Moir et al. 1973b: 9; Dyrness et al. 1974a: 22, 24; Halverson et al. 1986: 77-83; Hemstrom et al. 1982: 49; Hemstrom and Logan 1986: 85, 89, 91; Hemstrom et al. 1987: 206-226; Atzet and McCrimmon 1990: 117, 122, 126; McCain and Diaz 2002a  |
| <i>Pseudotsuga menziesii</i> - <i>Tsuga heterophylla</i> / <i>Rhododendron macrophyllum</i> forest   | Douglas-fir - western Hemlock / Pacific rhododendron                                       | CEGL005544 | G4S3     | CR, WC     | WA          |              | Moir et al. 1973b: 9; Dyrness et al. 1974a: 22, 24; Halverson et al. 1986: 77-83; Hemstrom et al. 1982: 49; Hemstrom and Logan 1986: 85, 89, 91; Hemstrom et al. 1987: 206-226; Atzet and McCrimmon 1990: 117, 122, 126; McCain and Diaz 2002a  |
| <i>Pseudotsuga menziesii</i> - <i>Tsuga heterophylla</i> / <i>Umbellularia californica</i>   | Douglas-fir - western hemlock / California laurel  | CEGL000087 | G3S3     | KM         | CA?         |              | Atzet and Wheeler 1984: 119   |
| <i>Pseudotsuga menziesii</i> - <i>Tsuga heterophylla</i> / <i>Vaccinium alaskaense</i> / <i>Xerophyllum tenax</i> forest                                 | Douglas-fir - western Hemlock / Alaska blueberry / common beargrass                        | CEGL005547 | G3S3     | EC, WC     | AK, WA      |              | Topik et al. 1986; Shephard 1995; Pawuk and Kissinger 1989; Meidinger et al. 2005; McCain and Diaz 2002b; McCain and Diaz 2002a; Martin et al. 1995; Henderson et al. 1992; Henderson et al. 1989; Henderson et al. 1986; Henderson et al. 1985; Henderson and Peter 1983; Henderson and Peter 1982; Henderson and Peter 1981; Hemstrom et al. 1987; Halverson et al. 1986; Franklin et al. 1979; Fox 1983; DeVelice et al. 1994; DeMeo et al. 1992             |
| <i>Pseudotsuga menziesii</i> - <i>Tsuga mertensiana</i> / <i>Acer circinatum</i> lava flow   | Douglas-fir - mountain hemlock / vine maple lava flow woodland                             | CEGL000912 | G4QS4    | EC, WC     |             |              | Roach 1952; Atzet and Wheeler 1984  |
| <i>Pseudotsuga menziesii</i> - <i>Umbellularia californica</i> / <i>Toxicodendron diversilobum</i> forest  | Douglas-fir - California laurel / Pacific poison-oak                                       | CEGL000073 | G4S3     | KM         | CA          |              | Sawyer et al. 2009  |
| <i>Pseudotsuga menziesii</i> / <i>Acer circinatum</i>  | Douglas-fir / vine maple   | CEGL000417 | G5?SU    | CP, EC     | WA          |              | Titus et al. 1998   |
| <i>Pseudotsuga menziesii</i> / <i>Acer circinatum</i> - <i>Holodiscus discolor</i>   | Douglas-fir / vine maple - oceanspray  | CEGL005533 | G3S3     | EC, WC     | WA          |              | Topik et al. 1986: ; Halverson et al. 1986  |



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|---|---|------------|----------|----------------|-------------------------|--------------|--|
| <i>Pseudotsuga menziesii</i> / <i>Acer glabrum</i> Riparian Forest  | Douglas-fir / Rocky Mountain maple  | CEGL000418 | G4S3     | BM, EC         | AB, CO, ID, MT?, UT, WY | FW           | Steele et al. 1981: 43; Steele et al. 1983: 23; Johnson and Simon 1987: 339; Titus et al. 1998; Crowe et al. 2004: 309; Wells 2006: 56   |
| <i>Pseudotsuga menziesii</i> / <i>Betula occidentalis</i> riparian woodland   | Douglas-fir / water birch riparian woodland                                     | CEGL002639 | G3S1     | BM, CP, EC     | CO, NV?, UT             | FW           | Romme et al. 1993; Manning and Padgett 1995; Kittel et al. 1999b; Kittel et al. 1999a; Kittel et al. 1997a; Kittel et al. 1996; Crowe et al. 2004: 313; Clark et al. 2009; Carsey et al. 2003a   |
| <i>Pseudotsuga menziesii</i> / <i>Calamagrostis rubescens</i>   | Douglas-fir / pinegrass   | CEGL000429 | G5S3     | BM             | BC, ID, MT, UT, WA, WY  |              | Cole 1977b: 64; Steele et al. 1981: 38; Cole 1982: 6; Steele et al. 1983: 28; Johnson and Simon 1987: 332; Cooper et al. 1991: 76; Johnson and Clausnitzer 1992: 91  |
| <i>Pseudotsuga menziesii</i> / <i>Carex geyeri</i>  | Douglas-fir / elk sedge   | CEGL000430 | G4?S3    | BM, EC         | CO, ID, MT, WA, WY      |              | Steele et al. 1981: 35; Topik et al. 1988: 51; Cooper et al. 1991: 76; Johnson and Clausnitzer 1992: 93, 95  |
| <i>Pseudotsuga menziesii</i> / <i>Cercocarpus ledifolius</i>  | Douglas-fir / mountain mahogany   | CEGL000897 | G3G4S2   | BM             | CO, ID, MT, UT, WY      |              | Steele et al. 1981: 38; Steele et al. 1983: 28; Johnson and Clausnitzer 1992: 95   |
| <i>Pseudotsuga menziesii</i> / <i>Clintonia uniflora</i> - <i>Xerophyllum tenax</i> forest                            | Douglas-fir / bride's bonnet - common beargrass                                 | CEGL005854 | G4G5S3   | BM             | AB?, ID, MT, WA         |              | Reid et al. 2004; Pfister et al. 1977; Lillybridge et al. 1995; Johnson and Simon 1987; Hop et al. 2007; Daubenmire and Daubenmire 1968; Cooper et al. 1987; Achuff et al. 2002  |
| <i>Pseudotsuga menziesii</i> / <i>Clintonia uniflora</i> forest   | Douglas-fir / bride's bonnet  | CEGL005850 | G4G5S3   | BM             | AB, ID, MT, WA          |              | Steele et al. 1981; Reid et al. 2004; Pfister et al. 1977; Lillybridge et al. 1995; Johnson and Simon 1987; Hop et al. 2007; Daubenmire and Daubenmire 1968; Cooper et al. 1987; Achuff et al. 2002  |
| <i>Pseudotsuga menziesii</i> / <i>Cornus nuttallii</i> / <i>Achlys triphylla</i> forest                               | Douglas-fir / Pacific dogwood / sweet after death                               | CEGL007355 | GNRS1    | WC             | WA                      |              | Meidinger et al. 2005  |
| <i>Pseudotsuga menziesii</i> / <i>Corylus cornuta</i> / <i>Symphoricarpos hesperius</i> - <i>Polystichum munitum</i>  | Douglas-fir / beaked hazelnut / trailing snowberry - swordfern                  | CEGL007358 | GNRS2    | EC, KM, WC, WV | WA                      |              | Hemstrom et al. 1987: 74; Henderson et al. 1986; Meidinger et al. 2005; Chappell 2006b   |
| <i>Pseudotsuga menziesii</i> / <i>Festuca occidentalis</i>  | Douglas-fir / western fescue  | CEGL000434 | G2S2     | EC             | WA                      |              | Topik et al. 1988: 55; Topik 1989  |
| <i>Pseudotsuga menziesii</i> / <i>Gaultheria shallon</i> - <i>Holodiscus discolor</i>                                 | Douglas-fir / salal - oceanspray  | CEGL005537 | G2S2     | WC             | WA                      |              | Topik et al. 1986; Meidinger et al. 2005; Krajina 1969; Henderson et al. 1989; Henderson et al. 1986; Hemstrom et al. 1987; Dyrness et al. 1975; Crawford et al. 2009; Copass and Ramm-Granberg 2016a; Chappell 2006b; Atzet and McCrimmon 1990; Agee 1987                             |
| <i>Pseudotsuga menziesii</i> / <i>Gaultheria shallon</i> - <i>Holodiscus discolor</i> forest                          | Douglas-fir / salal - Oceanspray  | CEGL005531 | GNRS3    | CR, WC, WV     | BC, CA, WA              |              | Topik et al. 1986; Rocchio et al. 2012; Meidinger et al. 2005; Henderson et al. 1989; Henderson et al. 1986; Fonda and Bernardi 1976; del Moral and Long 1977; Crawford et al. 2009; Copass and Ramm-Granberg 2016a; Chappell 2006b; Chappell 2001; Chappell 1997; Agee and Wasem 1987 |
| <i>Pseudotsuga menziesii</i> / <i>Gaultheria shallon</i> - <i>Mahonia nervosa</i> / <i>Polystichum munitum</i> forest | western Hemlock - (Douglas-fir) / Alaska blueberry - Cascade barberry - (salal) | CEGL007365 | GNRS2    | CR, WC         | WA                      |              | Halverson et al. 1986: 88; Topik et al. 1986: 88; McCain and Diaz 2002b; Meidinger et al. 2005; Crawford et al. 2009; Chappell 2006b   |
| <i>Pseudotsuga menziesii</i> / <i>Gaultheria shallon</i> - <i>Vaccinium parvifolium</i> forest                        | Douglas-fir / salal - red huckleberry   | CEGL005532 | G3G4S3   | CR, WC         | BC, CA, WA              |              | Topik et al. 1986; Meidinger et al. 2005; Henderson et al. 1989; Henderson et al. 1986; Fonda and Bernardi 1976; del Moral and Long 1977; Crawford et al. 2009; Agee and Wasem 1987  |
| <i>Pseudotsuga menziesii</i> / <i>Gaultheria shallon</i> / <i>Polystichum munitum</i>                                 | Douglas-fir / salal / swordfern   | CEGL000070 | G4S3     | WC             |                         |              | Klinka et al. 1996: 151; Atzet and McCrimmon 1990; Odion et al. 2013   |
| <i>Pseudotsuga menziesii</i> / <i>Holodiscus discolor</i> - <i>Whipplea modesta</i>                                   | Douglas-fir / oceanspray - whipplevine  | OR0022     | G3S3     | KM, WC, WV     | CA, WA                  |              | Hemstrom et al. 1987: 70; Atzet et al. 1996; McCain and Diaz 2002b   |

| Scientific Name   | Common Name                                    | ELCODE     | G/S Rank | Ecoregions     | W S & P                    | Wetland Type | References   |
|---|--|------------|----------|----------------|----------------------------|--------------|--|
| <i>Pseudotsuga menziesii</i> / <i>Holodiscus discolor</i> / <i>Carex geyeri</i>   | Douglas-fir / oceanspray / elk sedge           | CEGL000437 | G3S3     | BM, EC         | WA                         |              | Johnson and Clausnitzer 1992: 85; Titus et al. 1998; Topik et al. 1988; John and Tart 1986; Hemstrom et al. 1987; Dyrness et al. 1974a; Douglas 1971; Crowe et al. 2004; Agee and Kertis 1987  |
| <i>Pseudotsuga menziesii</i> / <i>Mahonia aquifolium</i>  | Douglas-fir / Pipers Oregongrape               | CEGL000069 | G3S3     | KM             | CA?                        |              | Atzet and Wheeler 1984: 224  |
| <i>Pseudotsuga menziesii</i> / <i>Mahonia nervosa</i>   | Douglas-fir / dwarf Oregongrape                | CEGL000068 | G3S3     | CR, KM, WC, WV | CA?                        |              | Atzet and Wheeler 1984: 223; Atzet et al. 1996; Klinka et al. 1996: 151; McCain and Diaz 2002a; McCain and Diaz 2002b  |
| <i>Pseudotsuga menziesii</i> / <i>Mahonia repens</i>  | Douglas-fir / creeping Oregongrape             | CEGL000442 | G5S2     | BM, KM         | AZ, CO, ID, MT, NM, UT, WY |              | Cole 1977b: 59; Steele et al. 1981: 36; Cole 1982: 8; Steele et al. 1983: 30; Atzet and Wheeler 1984: 222  |
| <i>Pseudotsuga menziesii</i> / <i>Menziesia ferruginea</i> / <i>Clintonia uniflora</i> forest   | Douglas-fir / rusty menziesia / bride's bonnet | CEGL005851 | G3?SU    | BM             | AB?, ID, MT, WA?           |              | Reid et al. 2004; Pfister et al. 1977; Lillybridge et al. 1995; Johnson and Simon 1987; Hop et al. 2007; Daubenmire and Daubenmire 1968; Cooper et al. 1987; Achuff et al. 2002; Youngblood and Mauk 1985; Walkup 1991b; Tendick et al. 2010; Stuever and Hayden 1997a; Stevens et al. 2015; Steele et al. 1983; Steele et al. 1981; Roberts et al. 1992; Roberts 1980; Pfister et al. 1977; Muldavin et al. 2011b; Muldavin et al. 1996; Mauk and Henderson 1984; Larson and Moir 1987; Jones and Ogle 2000; Johnston 1987; Johnston 1984; Hoffman and Alexander 1976; Coles et al. 2010; Coles et al. 2008a; Cole 1982; Cole 1977b; Atzet and Wheeler 1984; Alexander et al. 1984b |
| <i>Pseudotsuga menziesii</i> / <i>Notholithocarpus densiflorus</i> - <i>Chrysolepis chrysophylla</i> var. <i>chrysophylla</i>               | Douglas-fir / tan oak - golden chinquapin      | CEGL000074 | G3S2     | KM             | CA                         |              | Atzet and Wheeler 1984: 217  |
| <i>Pseudotsuga menziesii</i> / <i>Notholithocarpus densiflorus</i> - <i>Quercus chrysolepis</i>   | Douglas-fir / tan oak - canyon live oak        | CEGL000076 | G3G4S3   | KM             | CA                         |              | Atzet and Wheeler 1984: 175, 176, 220  |
| <i>Pseudotsuga menziesii</i> / <i>Notholithocarpus densiflorus</i> / <i>Gaultheria shallon</i>  | Douglas-fir / tan oak / salal                  | CEGL000075 | G4S3     | KM             | CA                         |              | Atzet and Wheeler 1984: 165, 168, 169, 216; Atzet et al. 1996  |
| <i>Pseudotsuga menziesii</i> / <i>Notholithocarpus densiflorus</i> / <i>Gaultheria shallon</i> - <i>Mahonia nervosa</i> var. <i>nervosa</i> | Douglas-fir / tan oak / dwarf Oregongrape      | OR0023     | G3G4S3   | KM             | CA                         |              | Atzet and Wheeler 1984: 173, 174, 219; Atzet et al. 1996   |
| <i>Pseudotsuga menziesii</i> / <i>Notholithocarpus densiflorus</i> / <i>Toxicodendron diversilobum</i>                                      | Douglas-fir / tan oak / poison oak             | CEGL000078 | G4S4     | KM             | CA                         |              | Atzet and Wheeler 1984: 177, 218   |
| <i>Pseudotsuga menziesii</i> / <i>Notholithocarpus densiflorus</i> / <i>Vaccinium uliginosum</i>  | Douglas-fir / tan oak / bog blueberry          | CEGL000079 | G4SU     | KM             | CA                         |              | Atzet and Wheeler 1984   |
| <i>Pseudotsuga menziesii</i> / <i>Physocarpus malvaceus</i>   | Douglas-fir / mallow ninebark                  | CEGL000447 | G5S3     | BM             | BC?, ID, MT, UT, WA, WY    |              | Hall 1973: 31; Steele et al. 1981: 44; Cole 1982: 57; Cole 1982: 6; Steele et al. 1983: 22; Johnson and Simon 1987: 345; Cooper et al. 1991: 73; Johnson and Clausnitzer 1992: 83; Zamora 1983; Youngblood and Mauk 1985; Williams et al. 1990b; Williams and Lillybridge 1985; Williams and Lillybridge 1983; Steele et al. 1983; Steele et al. 1981; Pfister et al. 1977; Mauk and Henderson 1984; Jones and Ogle 2000; Johnston 1987; Daubenmire and Daubenmire 1968; Daubenmire 1952; Cooper et al. 1987; Cooper 1975; Cole 1982; Clausnitzer and Zamora 1987  |
| <i>Pseudotsuga menziesii</i> / <i>Pseudoroegneria spicata</i>   | Douglas-fir / bluebunch wheatgrass             | CEGL000908 | G4S2     | BM             | BC, CO, ID, MT, UT?, WA    |              | Cole 1977b: 54; Steele et al. 1981: 30; Cole 1982: 5; Cooper et al. 1991: 77; Pfister et al. 1977; Pfister 1977  |
| <i>Pseudotsuga menziesii</i> / <i>Quercus chrysolepis</i>   | Douglas-fir / canyon live oak                  | CEGL000926 | G4S2     | KM             | CA                         |              | Atzet and Wheeler 1984   |

| Scientific Name  | Common Name   | ELCODE     | G/S Rank | Ecoregions     | W S & P                          | Wetland Type | References  |
|--|---|------------|----------|----------------|----------------------------------|--------------|---|
| <i>Pseudotsuga menziesii</i> / <i>Rhododendron macrophyllum</i> - <i>Vaccinium ovatum</i>          | Douglas-fir / western rhododendron - evergreen huckleberry            | CEGL005546 | GNRS3    | CR             | WA                               |              | Moir et al. 1973b; Meidinger et al. 2005; McCain and Diaz 2002b; McCain and Diaz 2002a; Henderson et al. 1989; Henderson et al. 1986; Hemstrom et al. 1987; Hemstrom et al. 1982; Hemstrom and Logan 1986; Halverson et al. 1986; Dyrness et al. 1974a; Christy et al. 1998; Atzet and McCrimmon 1990   |
| <i>Pseudotsuga menziesii</i> / <i>Spiraea betulifolia</i>  | Douglas-fir / birchleaf spiraea                                       | CEGL000457 | G5S4     | BM             | AB, ID, MT, WY                   |              | Head 1959: 27; Steele et al. 1981: 40; Steele et al. 1983: 26; Johnson and Simon 1987: 352; Cooper et al. 1991: 76  |
| <i>Pseudotsuga menziesii</i> / <i>Symphoricarpos albus</i>   | Douglas-fir / common snowberry  | CEGL000459 | G5S3     | BM, CP, EC, WC | AB, BC?, ID, MT, WA, WY          | FW           | Steele et al. 1983: 25; Johnson and Simon 1987: 358; Cooper et al. 1991: 75; Johnson and Clausnitzer 1992: 87; Wooten and Morrison 1995: 77; Crowe and Clausnitzer 1997: 64, 66; Titus et al. 1998; Crowe et al. 2004: 315, 317; Wells 2006: 58   |
| <i>Pseudotsuga menziesii</i> / <i>Symphoricarpos albus</i> / <i>Hieracium albertinum</i>           | Douglas-fir / common snowberry / hawkweed                             | CEGL000458 | G2S2     | EC             | CA?, WA                          |              | Topik et al. 1988: 67; Titus et al. 1998; Topik et al. 1988; Titus et al. 1998; Kovalchik 2001; Hemstrom et al. 1987; Ganskopp 1979; Crowe et al. 2004; Crowe and Clausnitzer 1997  |
| <i>Pseudotsuga menziesii</i> / <i>Symphoricarpos oreophilus</i>                                    | Douglas-fir / mountain snowberry                                      | CEGL000462 | G5S3     | BM             | AZ, CO, ID, MT, NM, UT, WA, WY + |              | Steele et al. 1981: 32; Steele et al. 1983: 34; Day and Wright 1985: 5; Johnson and Simon 1987: 365; Johnson and Clausnitzer 1992:89; Williams et al. 1990b; Williams and Lillybridge 1985; Williams and Lillybridge 1983; Tendick et al. 2011b; Tendick et al. 2010; Salas et al. 2010b; Romme et al. 1993; Reid and Hall 2010; Reed 1976; Pfister et al. 1977; Muldavin et al. 1996; Mauk and Henderson 1984; Lillybridge et al. 1995; Komarkova et al. 1988b; Kittel et al. 1999b; Kittel et al. 1994; Kearsley et al. 2015; Jones and Ogle 2000; Johnston 1987; Hess and Wasser 1982; Friesen et al. 2010; Fischer and Bradley 1987; Diamond 1993; Day and Wright 1985; Coles et al. 2010; Coles et al. 2008c; Coles et al. 2008a; Cogan et al. 2005; Cogan et al. 2004; Clark et al. 2009; Bell et al. 2009; Arno 1980 |
| <i>Pseudotsuga menziesii</i> / <i>Toxicodendron diversilobum</i>                                   | Douglas-fir / poison oak  | CEGL000072 | G4S4     | CR, KM, WC, WV | CA?                              |              | McCain and Diaz 2002a; Atzet and Wheeler 1984: 224, 225; Atzet and McCrimmon 1990: 311, 315; McCain and Diaz 2002a; McCain and Diaz 2002b   |
| <i>Pseudotsuga menziesii</i> / <i>Umbellularia californica</i> / <i>Polystichum munitum</i> forest | Douglas-fir / California Laurel / western swordfern                   | CEGL003168 | G4S3     | KM             | CA                               |              | Schirokauer et al. 2003; Sawyer et al. 2009   |
| <i>Pseudotsuga menziesii</i> / <i>Vaccinium cespitosum</i> forest                                  | Douglas-fir / dwarf Bilberry  | CEGL000465 | G5S3     | BM             | AB?, ID, MT, WA                  |              | Williams et al. 1995; Williams et al. 1990b; Steele et al. 1981; Reid et al. 2004; Pfister et al. 1977; Ogilvie 1962; Hop et al. 2007; Crawford et al. 2009; Cooper et al. 1987   |
| <i>Pseudotsuga menziesii</i> / <i>Vaccinium membranaceum</i>                                       | Douglas-fir / thin-leaved blueberry                                   | CEGL000464 | G4QS2    | BM             | WA                               |              | Johnson and Simon 1987: 364; Johnson and Clausnitzer 1992: 81; Pfister et al. 1977; Daubenmire and Daubenmire 1968; Cooper et al. 1987  |
| <i>Pseudotsuga menziesii</i> / <i>Vaccinium membranaceum</i> / <i>Xerophyllum tenax</i> forest     | Douglas-fir / thinline huckleberry / common beargrass                 | CEGL005852 | G4G5S2   | BM             | AB, ID, MT, WA                   |              | Schirokauer et al. 2003; Sawyer et al. 2009; Steele et al. 1981; Reid et al. 2004; Pfister et al. 1977; Lillybridge et al. 1995; Johnson and Simon 1987; Hop et al. 2007; Daubenmire and Daubenmire 1968; Cooper et al. 1987; Arno and Peterson 1983; Achuff et al. 2002  |
| <i>Psilocarphus brevissimus</i> Vernal Pool [Provisional]  | Dwarf wooly-heads   | OR1132     | G2S2     | KM             | CA?                              | VP           | Titus and Christy 2017: 5   |
| <i>Puccinellia lemmonii</i> - <i>Poa secunda</i>   | Lemmon alkaligrass - alkali bluegrass                                 | CEGL001658 | G1S1     | BM, BR, EC     |                                  | AW           | Kagan 1986  |
| <i>Purshia tridentata</i> - <i>Artemisia tridentata</i> - <i>Tetradymia canescens</i> shrubland    | antelope bitterbrush - big sagebrush - spineless horsebrush shrubland | CEGL003481 | GNRSU    | BR, EC         | CA                               |              | Sawyer et al. 2009; Keeler-Wolf et al. 2012; Keeler-Wolf et al. 2003a   |
| <i>Purshia tridentata</i> / <i>Carex inops</i> ssp. <i>inops</i> - <i>Achnatherum occidentale</i>  | bitterbrush / long-stolon sedge - western needlegrass                 | CEGL001492 | G2S1     | EC             |                                  |              | Volland 1976: 29  |

| Scientific Name  | Common Name   | ELCODE     | G/S Rank | Ecoregions     | W S & P                 | Wetland Type | References   |
|--|---|------------|----------|----------------|-------------------------|--------------|--|
| Purshia tridentata / Festuca idahoensis shrub grassland  | bitterbrush / Idaho fescue  | CEGL002674 | G3G5S1   | BM, EC         | CA?, ID, MT, NV, WA, WY |              | Dealy 1971: 64; Johnson and Simon 1987: 167; Johnson and Clausnitzer 1992: 135; Tweit and Houston 1980; Mueggler and Stewart 1980; Lewis 1975a; Johnson and Simon 1987; Hall 1973; Erixson et al. 2011b; Daubenmire 1970 |
| Purshia tridentata / Hesperostipa comata   | bitterbrush / needle-and-thread                                   | CEGL001498 | G2S1     | BR, CP         | ID, MT, NV, UT, WA      |              | Poulton 1955; Daubenmire 1970; Easterly and Salstrom 1997: 26; Hironaka et al. 1983; Erixson et al. 2011b; Daubenmire 1970; Cooper 2003; Tendick et al. 2011b; Schulz and Hall 2011; Poulton 1955                        |
| Purshia tridentata / Oryzopsis hymenoides  | bitterbrush / indian ricegrass dune community                     | CEGL001058 | G1S1     | BM, CP         | ID, WA, WY?             |              | Daubenmire 1970; Easterly and Salstrom 1997: 29; Poulton 1955; Erixson et al. 2011b; Daubenmire 1975; Crawford 1986; Copeland 1978; Chadwick and Dalke 1965  |
| Purshia tridentata / Poa secunda   | bitterbrush / Sandberg bluegrass                                  | CEGL001059 | G1?QS1   | CP             | ID                      |              | Reid et al. 1994; Moseley 1987c  |
| Purshia tridentata / Pseudoroegneria spicata   | bitterbrush / bluebunch wheatgrass                                | CEGL001495 | G3S1     | BM, EC         | BC, CA?, ID, MT, WA     |              | Hall 1973: 20; Johnson and Simon 1987: 172; Easterly and Salstrom 1997: 25; Mueggler and Stewart 1980; Hironaka et al. 1983; Erixson et al. 2011b; Daubenmire 1970; Crawford et al. 2009; Cooper 2003; Bell et al. 2009  |
| Quercus garryana - Acer macrophyllum - Pseudotsuga menziesii / Acer circinatum - Corylus cornuta | white oak - bigleaf maple - Douglas-fir / vine maple - hazel      | OR0024     | G3S3     | WV             | WA?                     |              | Buechling et al. 2008  |
| Quercus garryana - Fraxinus latifolia / Symphoricarpos albus                                     | white oak - Oregon ash / common snowberry                         | CEGL003299 | G2S2     | KM, WC, WV     | WA                      | FW           | Smith 1985: 529; Titus et al. 1996; Copass and Ramm-Granberg 2016b; Chappell and Crawford 1997; Chappell 2006b; Buechling et al. 2008: 9; McCain 2004: 274, 283  |
| Quercus garryana - Juniperus occidentalis / Ceanothus cuneatus / Festuca idahoensis              | white oak - western juniper savanna                               | OR0025     | G1S1     | KM             | CA                      |              | ORBIC unpubl. data   |
| Quercus garryana - Quercus kelloggii / Toxicodendron diversilobum                                | white oak - black oak / poison oak                                | CEGL000931 | G2S2     | KM, WV         | CA                      |              | Smith 1985: 528; Jimerson 1993; Sawyer et al. 2009; Riegel et al. 1992; Buechling et al. 2008  |
| Quercus garryana / Ceanothus cuneatus / Festuca idahoensis                                       | white oak / buckbrush / Idaho fescue                              | CEGL000930 | G2S2     | KM             | CA                      |              | Riegel et al. 1992: 70; Detling 1961; Barbour and Major 1988   |
| Quercus garryana / Elymus glaucus  | white oak / blue wildrye  | CEGL000550 | G1G2S1   | CP, EC         | CA, WA                  |              | John and Tart 1986   |
| Quercus garryana / Festuca (idahoensis ssp. roemerii, rubra) wooded grassland                    | white oak / Roemer fescue savanna                                 | CEGL001714 | G1S1     | CR, KM, WV     | CA, WA                  |              | Buechling et al. 2008; Thilenius 1968; Sawyer and Keeler-Wolf 1995; Reid et al. 1994; John and Tart 1986; Chappell et al. 1997; Chappell 2006b   |
| Quercus garryana / Festuca idahoensis woodland   | Oregon white oak / Idaho fescue woodland                          | CEGL000551 | G1?S1    | KM, WV         | WA                      |              | Thilenius 1968; ORBIC unpubl. data   |
| Quercus garryana / Pseudoregnaria spicata  | white oak / bluebunch wheatgrass                                  | CEGL000552 | G1G2S1   | CP, EC         | WA                      |              | Buechling et al. 2008; Lillybridge et al. 1995; John and Tart 1986; Williams and Smith 1990  |
| Quercus garryana / Symphoricarpos albus / Polystichum munitum                                    | white oak / snowberry / sword fern                                | CEGL003353 | G2S1     | WV             |                         |              | Thilenius 1968: 1128   |
| Quercus garryana / Toxicodendron diversilobum / Elymus glaucus                                   | white oak / poison oak / blue wildrye                             | CEGL000932 | G2S1     | CR, EC, WC, WV | CA, WA                  |              | Thilenius 1968: 1128; Riegel et al. 1992: 70; Stumpf et al. 2017; Buechling et al. 2008  |
| Quercus garryana / Viburnum ellipticum - Toxicodendron diversilobum woodland                     | Oregon white oak / western Blackhaw - Pacific poison-oak woodland | CEGL003354 | G1S1     | EC, WV         | WA                      |              | Buechling et al. 2008; Chappell 2006b  |
| Quercus vaccinifolia - Arctostaphylos patula shrubland   | huckleberry oak - greenleaf manzanita chaparral                   | CEGL008697 | GNRS3    | KM             | CA                      |              | Sawyer et al. 2009; Sawyer and Thornburgh 1977; Keeler-Wolf et al. 2012; Keeler-Wolf et al. 2003a  |
| Ranunculus aquatilis - Callitriche palustris vegetation  | water crowfoot - vernal water starwort                            | CEGL001984 | G5S5     | BM             |                         | AB           | Crowe et al. 2004; Jankovsky-Jones et al. 2001; Salas et al. 2010b   |
| Ranunculus aquatilis - Callitriche verna aquatic vegetation                                      | whitewater Crowfoot - Vernal water-starwort aquatic vegetation    | CEGL003307 | G5S5     | ALL            | CO                      | AB           | Salas et al. 2010b; Robbins 1918; Jankovsky-Jones et al. 2001; Fuller 1930; Crowe et al. 2004: 60; Christy 2004: 137   |

| Scientific Name  | Common Name  | ELCODE     | G/S Rank | Ecoregions     | W S & P              | Wetland Type | References  |
|--|--|------------|----------|----------------|----------------------|--------------|---|
| Ranunculus flammula Aquatic Vegetation [Provisional]   | Creeping buttercup   | OR1133     | G5S3     | CR, WC         |                      | AB, FM       | Christy 2004: 138   |
| Ranunculus lobbii aquatic vegetation   | Lobb's buttercup aquatic vegetation                          | CEGL003308 | G3S2     | KM, WV         |                      | AB           | Titus and Christy 1996b; Titus and Christy 2017: 4  |
| Rhamnus alnifolia riparian wet shrubland   | alderleaf buckthorn riparian wet shrubland                   | CEGL001132 | G3S2     | BM             | AB, ID, MT, WA, WY   | SS           | Youngblood et al. 1985a; Reid et al. 2004; Hop et al. 2007; Hansen et al. 1988b; Hansen and Hall 2002; Elzinga and Rosentreter 2000; Crowe et al. 2004: 225; Crowe et al. 2002; Crowe and Clausnitzer 1997; Cogan et al. 2005; Bursik and Moseley 1995; Allen 2013  |
| Rhododendron (columbianum, groenlandicum) - Myrica gale / Sphagnum spp. Fen                      | Western Labrador-tea - sweet gale / sphagnum                 | CEGL003335 | G2S1     | CR             | BC, WA               | FE           | Christy 2001a: 25; Christy 2004: 47   |
| Rhododendron columbianum - Gaultheria shallon / Carex obnupta Fen                                | Western Labrador tea - salal / slough sedge                  | CEGL003437 | G2S2     | CR             | CA?                  | FE           | Christy 2001a: 23; Christy and Brophy 2002; Christy 2004: 42; McCain and Christy 2005; Kunze 1994   |
| Rhododendron columbianum / Carex obnupta / Sphagnum spp. Fen                                     | Western Labrador-tea / slough sedge / sphagnum               | CEGL003434 | G2S2     | CR             | CA?                  | FE           | Christy 2001a: 16, 17; Christy 2004: 43   |
| Rhododendron columbianum / Carex scopulorum Fen [Provisional]                                    | Western Labrador-tea / mountain sedge                        | OR1135     | G4S2     | BM             |                      | FE           | Crowe et al. 2004: 267; Wells 2006: 96  |
| Rhododendron columbianum / Darlingonia californica / Sphagnum spp. Fen                           | Western Labrador-tea / darlingtonia / sphagnum               | CEGL003435 | G2S2     | CR             |                      | FE           | Christy 2001a: 19, 21; Christy 2004: 45   |
| Rhododendron columbianum / Sanguisorba officinalis / Sphagnum spp. Fen                           | Western Labrador tea / great burnet / sphagnum               | CEGL003436 | G1S1     | CR             |                      | FE           | Christy 2001a: 22; Christy 2004: 48   |
| Rhododendron occidentale Shrub Swamp [Provisional]   | Western azalea   | OR1136     | G2S2     | KM             | CA                   | SF           | Titus and Christy 2017: 2   |
| Rhus glabra / Aristida purpurea var. longiseta shrub grassland                                   | smooth sumac / red three-awn shrub grassland                 | CEGL001507 | G1S1     | BM             | ID?, WA              |              | Tisdale 1986; Franklin and Dyrness 1973; Daubenmire 1970  |
| Rhus glabra / Pseudoroegneria spicata  | smooth sumac / bluebunch wheatgrass                          | CEGL001122 | G2S2     | BM             | ID, WA               |              | Daubenmire 1970; Crawford 2003; Johnson and Simon 1987: 201   |
| Ribes bracteosum - Rubus spectabilis / Chrysosplenium glechomifolium Wet Shrubland [Provisional] | Stink currant - salmonberry / western golden carpet          | OR1137     | G4S3     | CR             |                      | SS           | McCain 2004: 200  |
| Ribes bracteosum - Rubus spectabilis / mesic forbs Wet Shrubland [Provisional]                   | Stink currant - salmonberry / mesic forbs                    | OR1138     | G4S3     | CR, WC         |                      | SS           | Murray 2000: 34; McCain 2004: 68, 94, 102, 207, 211   |
| Ribes lacustre - Ribes hudsonianum / Cinna latifolia   | prickly currant - northern black currant / drooping woodreed | CEGL003445 | G2S2     | BM             | WA?                  | SS           | Crowe and Clausnitzer 1997: 150, 164; Crowe et al. 2004: 189  |
| Ribes lacustre - Ribes hudsonianum / Glyceria striata  | prickly currant - northern black currant / fowl mannagrass   | CEGL003446 | G2S2     | BM             |                      | SS           | Crowe et al. 2004: 191; Crowe and Clausnitzer 1997  |
| Rosa nutkana - Festuca idahoensis grassland  | Nootka rose - Idaho fescue grassland                         | CEGL001626 | G1G2S1   | BR             | ID, WA               |              | Reid et al. 1994; Johnson and Simon 1987; Johnson and Simon 1985; Daubenmire 1970   |
| Rosa nutkana / Deschampsia cespitosa   | Nootka rose / tufted hairgrass brush prairie                 | CEGL003344 | G2S2     | WV             |                      | WP           | Boss 1983: 98; Kauffman and Connelly 1989: 2, 3; Connelly 1989: 21, 22; Connelly  |
| Rosa nutkana / Oenanthe sarmentosa   | Nootka rose / water parsley shrub swamp                      | CEGL003457 | G2S2     | WV             |                      | WP           | Marshall 1985: 142  |
| Rosa woodsii   | Wood's rose  | CEGL001126 | G5SU     | BM, BR, CP, EC | CA, ID, MT, NV, WA + | SS           | Titus et al. 1998; Schulz and Hall 2011; Sawyer et al. 2009; Reid et al. 2004; Peterson 2008; Nachlinger and Reese 1996; Manning and Padgett 1995; Hop et al. 2007; Hansen et al. 1995; Hansen et al. 1991; Hansen et al. 1990; Evens et al. 2014; Erixson et al. 2011b; Crawford 2003; Cogan et al. 2012; Cogan and Taylor 2014; |
| Rubus parviflorus / Achlys triphylla Riparian Shrubland [Provisional]                            | Thimbleberry / vanillaleaf                                   | OR1140     | G3S3     | WC             |                      | SS           | McCain 2004: 76   |
| Rubus spectabilis - Vaccinium ovalifolium / Lysichiton americanus Wet Shrubland [Provisional]    | Salmonberry - early blueberry / skunk cabbage                | OR1141     | G3S3     | WC             |                      | SS           | McCain 2004: 170  |

| Scientific Name   | Common Name  | ELCODE     | G/S Rank | Ecoregions | W S & P                      | Wetland Type | References  |
|---|--|------------|----------|------------|------------------------------|--------------|---|
| Rubus spectabilis - Vaccinium ovalifolium / Polystichum munitum Wet Shrubland [Provisional] | Salmonberry - early blueberry / sword fern                         | OR1142     | G3S3     | CR         |                              | SS           | McCain 2004: 239  |
| Rubus spectabilis / mesic forbs Wet Shrubland [Provisional]                                 | Stink currant - salmonberry / mesic forbs                          | OR1143     | G4S3     | CR, WC     |                              | SS           | McCain 2004: 221, 225, 234, 244   |
| Rubus spectabilis / Tolmiea menziesii Wet Shrubland [Provisional]                           | Salmonberry / piggyback plant                                      | OR1144     | G3S3     | CR, WC     |                              | SS           | McCain 2004: 86   |
| Ruppia (cirrhosa,maritima)  | spiral ditch-grass, widgeongrass alkaline bed                      | CEGL003119 | G3S2     | CR, BM, BR | CA, NV?                      | SM           | Thorne 1982; Sawyer et al. 2009; Sawyer and Keeler-Wolf 1995; Odion et al. 1992   |
| Sagittaria latifolia  | wapato marsh   | CEGL003321 | G3S2     | WV         | BC?, CA?, WA                 | FM           | Christy and Putera 1993: 40; Kunze 1994: 48, 57; Titus et al. 1996; Christy 2004: 139   |
| Salicornia (bigelovii, depressa)  | (dwarf saltwort, Virginia glasswort) salt marsh                    | CEGL003123 | GNRQS2   | CR         | CA?, WA?                     | SM           | Eilers 1984: 12; Dethier 1990: 32, 33   |
| Salicornia depressa - Distichlis spicata - Triglochin maritima - (Jaumea carnososa)         | Virginia glasswort - saltgrass - arrow grass - (jaumea) salt marsh | CEGL003366 | G3S2     | CR         | BC?, WA                      | SM           | Eilers 1984: 12; Dethier 1990: 34; Rocchio et al. 2012; MacKenzie and Moran 2004; Kunze 1984; Eilers 1984; Dethier 1990; Ball 2003a   |
| Salix (boothii, geyeriana) / Carex aquatilis wet shrubland                                  | Booth willow - Geyer willow / water sedge                          | CEGL001176 | G3S3     | BM, EC     | CA?, CO?, ID, UT, WA         | SS           | Kovalchik 1987: 80; Padgett et al. 1989: 56, 65; Manning and Padgett 1991: 265; Titus and Christy 1996a; Crowe and Clausnitzer 1997: 108; Walford et al. 2001; Tuhy 1981; Padgett et al. 1988b; Norton et al. 1981; Mutz and Queiroz 1983; Kovalchik 2001; Kovalchik 1987; Hansen et al. 1995; Hansen et al. 1988b; Hansen and Hall 2002; Crowe et al. 2004: 279  |
| Salix (hookeriana, sitchensis) - Spiraea douglasii  | willow (Hooker willow, Sitka willow) - Douglas spiraea shrub swamp | CEGL003386 | G3G4S3   | CR, WV     | BC?, WA                      | SS           | Christy and Putera 1993: 40; Kunze 1994: 89, 90; Christy 2004: 53   |
| Salix (melanopsis, sitchensis) Cobble Bar wet shrubland                                     | dusky willow   | CEGL002705 | G3S3     | BM, BR     | ID, MT?, WA                  | SS           | Titus et al. 1998; Tuhy and Jensen 1982; Rust et al. 2003; Murray 2000; Kovalchik 2001; Kerr 2000; Diaz and Mellen 1996; Crowe et al. 2004: 247; Crowe and Clausnitzer 1997; Brunsfeld and Johnson 1985   |
| Salix amygdaloides - Salix exigua   | peachleaf willow - coyote willow                                   | CEGL000948 | G2S1     | BM, CP     | ID?, NM, UT, WA              | SS           | Von Loh et al. 2002; Von Loh 2000; Muldavin et al. 2011b; Hirschberger 1978; Hibner 2009; Hansen et al. 1995; Evans 1989a   |
| Salix boothii - Salix eastwoodiae / Carex nigricans   | Booth willow - mountain willow riparian / black alpine sedge       | CEGL002607 | G3S2     | BM, EC     | NV?                          | SS           | Kovalchik 1987: 137; Crowe et al. 2004: 258   |
| Salix boothii - Salix geyeriana / Carex angustata wet shrubland                             | Booth willow - Geyer willow / widefruit sedge                      | CEGL001185 | G2S2     | EC         | WA?                          | SS           | Kovalchik 1987: 78; Crowe et al. 2004: 282  |
| Salix boothii - Salix geyeriana / Carex utriculata  | Booth willow - Geyer willow / beaked sedge                         | CEGL001178 | G4S3     | BM, EC     | CA?, CO, ID, MT, UT, WY      | SS           | Kovalchik 1987: 84; Crowe and Clausnitzer 1997: 106; Crowe et al. 2004: 273; Walford et al. 2001; Tuhy and Jensen 1982; Reid et al. 2004; Padgett et al. 1989; Padgett et al. 1988b; Norton et al. 1981; Mutz and Queiroz 1983; Mutz and Graham 1982; Kittel et al. 1999b; Kittel et al. 1999a; Kittel et al. 1994; Kittel and Lederer 1993; Kettler and McMullen 1996; Jones and Ogle 2000; Hop et al. 2007; Hansen et al. 1995; Cogan et al. 2005 |
| Salix boothii - Salix lemmonii / Aconitum columbianum                                       | Booth willow - Lemmon willow / Columbia monkshood                  | CEGL001186 | G3S2     | BM, EC     | CA?, NV?                     | SS           | Manning and Padgett 1991; Kovalchik 1987; Crowe et al. 2004: 289; Crowe and Clausnitzer 1997  |
| Salix boothii / Calamagrostis canadensis  | Booth willow / bluejoint reedgrass                                 | CEGL001175 | G5S3     | BM         | CO, ID, MT?, NV, UT, WA?, WY | SS           | Padgett et al. 1989: 59; Titus et al. 1998; Tuhy and Jensen 1982; Reid et al. 2004; Peterson 2008; Padgett et al. 1988b; Norton et al. 1981; Mutz and Queiroz 1983; Mutz and Graham 1982; Kovalchik 2001; Hop et al. 2007; Hansen et al. 1995; Crowe et al. 2004: 256; Carsey et al. 2003a; Wells 2006: 84  |

| Scientific Name   | Common Name   | ELCODE     | G/S Rank | Ecoregions     | W S & P                    | Wetland Type | References   |
|---|---|------------|----------|----------------|----------------------------|--------------|--|
| Salix boothii / Carex scopulorum Wet Shrubland [Provisional]                                    | Booth willow / mountain sedge                             | OR1145     | G3S2     | BM             |                            | SS           | Crowe et al. 2004: 253; Wells 2006: 78   |
| Salix boothii / Deschampsia cespitosa Wet Shrubland [Provisional]                               | Booth willow / tufted hairgrass                           | OR1146     | G2S2     | BM, EC         |                            | SS           | Crowe et al. 2004: 257   |
| Salix boothii / mesic graminoids Wet Shrubland  | Booth willow / mesic graminoids                           | CEGL001181 | G3S2     | BM, BR, EC     |                            | SS           | Crowe et al. 2004: 284, 288; Schulz and Hall 2011; Reid 1990; Padgett et al. 1989; Padgett et al. 1988b; Jones and Ogle 2000; Hansen et al. 1995; Cogan et al. 2012; Cogan et al. 2005; Carsey et al. 2003a  |
| Salix boothii mesic forbs   | Booth willow mesic forbs shrubland                        | CEGL001180 | G3S3     | BM, EC         | CA, CO, ID, MT, NV, UT, WY | SS           | Youngblood et al. 1985b; Youngblood et al. 1985a; Weixelman et al. 1996; Schulz and Hall 2011; Sawyer and Keeler-Wolf 1995; Reid et al. 2004; Peterson 2008; Padgett et al. 1989; Padgett et al. 1988b; Norton et al. 1981; Kittel et al. 1999b; Kittel et al. 1997b; Kittel et al. 1995; Kittel et al. 1994; Kittel and Lederer 1993; Kettler and McMullen 1996; Jones and Ogle 2000; Hop et al. 2007; Hansen et al. 1995; Hansen et al. 1988b; Cogan et al. 2012; Cogan et al. 2005; Carsey et al. 2003a; Wells 2006: 82 |
| Salix commutata / Carex aquatilis var. dives Wet Shrubland [Provisional]                        | Undergreen willow / Sitka sedge                           | OR1147     | G3S2     | WC             |                            | SS           | Murray 2000: 35  |
| Salix commutata / Carex scopulorum  | undergreen willow / Holm sedge                            | CEGL001189 | G3S3     | BM, EC         | CA, ID, NM, WA             | SS           | Kovalchik 1987: 137; Crowe and Clausnitzer 1997: 104; Titus et al. 1998; Tuhy and Jensen 1982; Seyer 1983; Seyer 1981; Mutz and Queiroz 1983; McCain and Christy 2005; Kovalchik 2001; Jankovsky-Jones 1999; Crowe et al. 2004: 251; Christy 2004: 51; Brunsfeld and Johnson 1985; Wells 2006: 80  |
| Salix drummondiana  | Drummond willow   | CEGL001190 | G3QS1    | BM, BR         | CO?, ID?, MT               | SS           | Manning and Padgett 1991: 321; Phillips 1977; Kittel and Lederer 1993; Hansen et al. 1995; Hansen et al. 1991; Hansen et al. 1989; Boggs et al. 1990; Baker 1989b  |
| Salix drummondiana / Carex scopulorum Wet Shrubland   | Drummond's willow / fire-thread sedge                     | CEGL001584 | G2S2     | BM             | ID, WA                     | SS           | Kovalchik 1993: 94; Bailey et al. 1994; Wells 2006: 90   |
| Salix drummondiana / mesic forbs Wet Shrubland  | Drummond willow / mesic forbs                             | CEGL001192 | G4S1     | BM, BR         | AB, CO, MT, WY             | SS           | Carsey et al. 2003b; Kittel et al. 1999b; Manning and Padgett 1995; Padgett et al. 1989; Youngblood et al. 1985a   |
| Salix eastwoodiae - Salix boothii / Carex aquatilis [Provisional]                               | Sierra willow - Booth willow / water sedge                | OR1148     | G2S2     | BM, EC         |                            | SS           | Crowe et al. 2004: 254   |
| Salix eastwoodiae - Salix commutata / Carex utriculata Wet Shrubland [Provisional]              | Sierra willow - undergreen willow / southern beaked sedge | OR1149     | G3S2     | BM, EC         |                            | SS           | Crowe et al. 2004: 255   |
| Salix eastwoodiae / Deschampsia cespitosa wet shrubland   | Mountain willow / tufted hairgrass wet shrubland          | CEGL003128 | G3S1     | BM             | CA                         | SS           | Taylor 1984; Sawyer et al. 2009; Potter 2000; Odion et al. 2013; Keeler-Wolf et al. 2012; Keeler-Wolf et al. 2003a; Keeler-Wolf 2002; Odion et al. 2013: 100   |
| Salix exigua - Salix lasiandra var. caudata Wet Shrubland                                       | coyote willow - Pacific willow                            | CEGL001204 | G2S2     | BM, BR, CP, EC | CA?, CO                    | SS           | Myhre and Clements 1972: 5; Padgett et al. 1989: 73; Titus et al. 1998   |
| Salix exigua - Salix lasiandra var. lasiandra - Cornus sericea Riparian Shrubland [Provisional] | Coyote willow - Pacific willow - red-osier dogwood        | OR1150     | G3S3     | BM, BR, CP, EC |                            | SS           | Crowe et al. 2004: 294   |
| Salix exigua / Equisetum arvense  | coyote willow / common horsetail                          | CEGL001201 | G3S2     | BM, BR, CP, EC | ID, NM, WA, WY             | SS           | Huschle 1975: 232, 233; Padgett et al. 1989: 75; Crowe and Clausnitzer 1997: 114; Moseley 1998: 24; Titus et al. 1998; Crowe et al. 2004: 293  |

| Scientific Name  | Common Name   | ELCODE     | G/S Rank | Ecoregions     | W S & P                              | Wetland Type | References   |
|--|---|------------|----------|----------------|--------------------------------------|--------------|--|
| <i>Salix exigua</i> / mesic forbs wet shrubland  | Narrowleaf willow / mesic forbs wet shrubland         | CEGL001202 | G2S2     | BM, BR, CP, EC | CO, ID, NV, UT, WY                   | SS           | Thomas et al. 2009b; Tendick et al. 2010; Peterson 2008; Padgett et al. 1989; Padgett et al. 1988b; Manning and Padgett 1995; Jones 1992b; Jankovsky-Jones et al. 2001; Holmstead 2001; Hansen and Hall 2002; Crowe et al. 2002; Crowe and Clausnitzer 1997; Coles et al. 2010; Coles et al. 2008a; Cole 1996; Cole 1995; Cogan and Taylor 2014  |
| <i>Salix exigua</i> / mesic gramenoid  | coyote willow / common spikerush - smallfruit bulrush | CEGL001203 | G5S3     | BM, BR, CP     | CA, CO, ID, MT, NM, NV, UT, WY       | SS           | Titus et al. 1998; Walford et al. 2001; Von Loh et al. 2007; Tendick et al. 2017; Tendick et al. 2012; Tendick et al. 2010; Stevens et al. 2007; Steinauer and Rolfmeier 1997; Schulz and Hall 2011; Sawyer et al. 2009; Romme et al. 1993; Peterson 2008; Padgett et al. 1989; Padgett et al. 1988b; Muldavin et al. 2000a; Kittel et al. 1999a; Kittel et al. 1996; Kittel and Lederer 1993; Kittel 1994; Keeler-Wolf et al. 2012; Keeler-Wolf et al. 2003a; Jones and Walford 1995; Jones 1992b; Hansen et al. 1995; Faber-Langendoen 2001; Evens et al. 2014; Crowe et al. 2004; Cooper and Cottrell 1990; Coles et al. 2010; Coles et al. 2008c; Coles et al. 2008a; Cogan et al. 2012; Cogan et al. 2004; Clark et al. 2009; Carsey et al. 2003a |
| <i>Salix exigua</i> gravel bar   | coyote willow gravel bar                              | CEGL005656 | G5S4     | BM, BR, CP, EC | AZ?, CO, ID, MT, NM?, NV, UT, WA, WY | SS           | Myhre and Clements 1972: 6; Miller 1976: 130; Padgett 1981: 61; Kovalchik 1987: 137; Evenden 1990: 41; Titus et al. 1998; Crowe et al. 2004: 291; Wells 2006: 86   |
| <i>Salix exigua</i> riparian wet shrubland   | Narrowleaf willow riparian wet shrubland              | CEGL001197 | G5S5     | BM, BR, CP, EC | AB, CA, CO, ID, NM, UT, WA, WY       | SS           | Thompson and Hansen 2002; Tendick et al. 2011b; Tendick et al. 2011a; Sawyer et al. 2009; Salas et al. 2011; Salas et al. 2010b; Phillips 1977; Padgett et al. 1989; Owns et al. 2004; Muldavin et al. 2000a; Kovalchik 1987; Klein et al. 2007; Kittel et al. 2012a; Kittel et al. 1996; Kittel et al. 1995; Kittel and Lederer 1993; Kittel 1993; Hansen et al. 1995; Hansen et al. 1991; Hansen et al. 1989; Evenden 1990; Erixson and Cogan 2012c; Donnelly et al. 2006; Crawford 2003; Caicco et al. 1995; Borchert et al. 2004   |
| <i>Salix farriar</i> / <i>Allium validum</i> - <i>Carex scopulorum</i> Wet Shrubland [Provisional] | Farr's willow / Pacific swamp onion - mountain sedge  | OR1151     | G2S1     | BM             |                                      | SS           | Crowe et al. 2004: 271; Wells 2006: 89   |
| <i>Salix farriar</i> / <i>Carex aquatilis</i> Wet Shrubland [Provisional]                          | Farr's willow / water sedge                           | OR1152     | G2S1     | BM             |                                      | SS           | Crowe et al. 2004: 270; Wells 2006: 88   |
| <i>Salix geyeriana</i> - <i>Salix hookeriana</i> wet shrubland                                     | Geyer willow - Piper willow                           | CEGL003295 | G1S1     | CR, WV         | WA?                                  | SS           | Christy unpubl. data 1990  |
| <i>Salix geyeriana</i> - <i>Salix lemmonii</i> / <i>Carex aquatilis</i> var. <i>dives</i>          | Geyer willow - Lemmon willow / Sitka sedge            | CEGL001212 | G3S2     | EC             | CA?, ID?, NV?                        | SS           | Peterson 2008; Kovalchik 1987; Crowe et al. 2004: 276; Crowe et al. 2002; Murray 2000  |
| <i>Salix geyeriana</i> - <i>Salix prolixa</i> Shrubland  | Geyer willow - rigid willow                           | CEGL001213 | G3S1     | BR, CP         |                                      | SS           | ORBIC unpubl. data   |
| <i>Salix geyeriana</i> / <i>Calamagrostis canadensis</i>   | Geyer willow / bluejoint wet shrubland                | CEGL001205 | G5S3     | BM, EC         | CO, ID, MT, UT, WY                   | SS           | Youngblood et al. 1985a; Walford et al. 2001; Tuhy and Jensen 1982; Salas et al. 2005; Padgett et al. 1989; Mutz and Queiroz 1983; Manning and Padgett 1995; Kittel et al. 1999b; Kittel et al. 1999a; Kittel et al. 1994; Kettler and McMullen 1996; Jones and Ogle 2000; Johnston 1987; Hansen et al. 1995; Hansen et al. 1991; Hall and Hansen 1997; Girard et al. 1997; Crowe et al. 2004: 272; Crowe and Clausnitzer 1997; Cooper and Cottrell 1990; Cogan et al. 2005; Carsey et al. 2003b; Carsey et al. 2003a  |



| Scientific Name  | Common Name   | ELCODE     | G/S Rank | Ecoregions | W S & P                | Wetland Type | References   |
|--|---|------------|----------|------------|------------------------|--------------|--|
| <i>Salix geyeriana</i> / <i>Carex utriculata</i>   | Geyer willow / northweset territory sedge wet shrubland               | CEGL001207 | G5SU     | BM, EC     | CO, ID, MT, NV, UT, WY | SS           | Kovalchik 1987: 82; Padgett et al. 1989: 65; Titus et al. 1998; Youngblood et al. 1985a; Walford et al. 2001; Tuhy and Jensen 1982; Salas et al. 2005; Rice et al. 2012c; Reznicek 1987; Phillips 1977; Peterson 2008; Mutz and Queiroz 1983; Manning and Padgett 1995; Kittel et al. 1999a; Kittel and Lederer 1993; Kettler and McMullen 1996; Jones and Ogle 2000; Jones 1992c; Johnston 1987; Hansen et al. 1995; Hansen et al. 1991; Hall and Hansen 1997; Girard et al. 1997; Cogan et al. 2005; Carsey et al. 2003a; Crowe et al. 2004: 273 |
| <i>Salix geyeriana</i> / <i>Deschampsia cespitosa</i> - <i>Carex nebrascensis</i> Wet Shrubland [Provisional]                      | Geyer willow / tufted hairgrass - Nebraska sedge                      | OR1153     | G3S2     | BM, EC     |                        | SS           | Crowe et al. 2004: 287   |
| <i>Salix geyeriana</i> / mesic forbs   | Geyer willow / mesic forbs wet shrubland                              | CEGL002666 | G3S3     | BM, BR, EC | CO, ID, MT, UT, WY     | SS           | Youngblood et al. 1985b; Youngblood et al. 1985a; Weixelman et al. 1996; Walford et al. 2001; Tuhy 1981; Tendick et al. 2010; Richard et al. 1996; Reid et al. 2004; Phillips 1977; Padgett et al. 1989; Padgett et al. 1988b; Mattson 1984; Kittel et al. 1999b; Kittel et al. 1999a; Kettler and McMullen 1996; Jones and Ogle 2000; Johnston 1987; Jensen and Tuhy 1981; Jankovsky-Jones et al. 2001; Hop et al. 2007; Hansen and Hall 2002; Crowe and Clausnitzer 1997; Coles et al. 2010; Carsey et al. 2003b; Carsey et al. 2003a            |
| <i>Salix geyeriana</i> / mesic graminoides   | Geyer willow / Baltic rush  | CEGL001210 | G3?S3    | EC         | CO, ID, NV, UT, WY     | SS           | Kovalchik 1987: 74, 82; Titus et al. 1998; Weixelman et al. 1996; Walford et al. 2001; Tendick et al. 2010; Sawyer et al. 2009; Salas et al. 2005; Peterson 2008; Padgett et al. 1989; Padgett et al. 1988b; Norton et al. 1981; Mutz and Queiroz 1983; Manning and Padgett 1995; Kovalchik 2001; Hansen et al. 1995; Hansen and Hall 2002; Evenden 1990; Crowe et al. 2002; Coles et al. 2010; Cogan et al. 2005  |
| <i>Salix hookeriana</i> - ( <i>Malus fusca</i> ) / <i>Carex obnupta</i> - <i>Lysichiton americanus</i>                             | coast willow - (crabapple) / slough sedge - skunk cabbage shrub swamp | CEGL003432 | G3S3     | CR         | BC?, WA                | SS           | Boss 1983: 51; Sanville et al. 1986: 127; Christy and Putera 1993: 40; Kunze 1994: 90, 93; Christy et al. 1998: 80; Christy 2001a: 31; Christy 2004: 54  |
| <i>Salix hookeriana</i> - ( <i>Salix sitchensis</i> ) wet shrubland  | coast willow wet shrubland  | CEGL003387 | G3S3     | CR         | WA                     |              | Christy et al. 1998: 76; Shephard 1995; Rocchio et al. 2012; McCain and Christy 2005; Kunze 1994; Copass and Ramm-Granberg 2016a; Christy 2004; Boggs 2000   |
| <i>Salix hookeriana</i> - <i>Myrica californica</i> Wet Shrubland  | coast willow deflation plain wetland                                  | CEGL001138 | G4S4     | CR         | CA?, WA                | SS           | Wiedemann 1966; Wiedemann 1984   |
| <i>Salix hookeriana</i> / <i>Potentilla anserina</i> ssp. <i>pacifica</i> - <i>Carex obnupta</i> Wet Shrubland [Provisional]       | Hooker willow / Pacific silverweed - slough sedge                     | OR1154     | G4S4     | CR         |                        | SM           | Christy et al. 1998: 76  |
| <i>Salix lasiandra</i> var. <i>lasiandra</i> - <i>Salix exigua</i> var. <i>columbiana</i> Swamp Woodland                           | Pacific willow - Columbia River willow                                | CEGL000949 | G3S2     | WV         |                        | SS           | Marshall 1985: 143; Christy and Putera 1993: 40; Kunze 1994: 43, 50; Kunze 1994; Hirschberger 1978; Copass and Ramm-Granberg 2016b; Christy 1993   |
| <i>Salix lasiandra</i> var. <i>lasiandra</i> - <i>Salix sitchensis</i> / <i>Lysichiton americanus</i> Swamp Woodland [Provisional] | Pacific willow - Sitka willow / skunk cabbage                         | OR1155     | G2S2     | CR, WV     | WA                     | SS           | Christy and Putera 1993: 41; Kunze 1994: 51,97; Titus et al. 1996; Christy 2004: 56  |
| <i>Salix lasiandra</i> var. <i>lasiandra</i> / <i>Urtica dioica</i> ssp. <i>gracilis</i> Swamp Woodland                            | Pacific willow / northwest nettle                                     | CEGL003409 | G2S2     | WV         |                        | SS           | Christy 2004: 55; Kunze 1994: 43, 50; Christy 2004: 55; McCain and Christy 2005: 239; Copass and Ramm-Granberg 2016a; Christy and Putera 1993  |
| <i>Salix lasiandra</i> var. <i>lasiandra</i> / wet graminoids Wet shrubland [Provisional]  | Pacific willow / wet graminoids                                       | OR1156     | G3S2     | BM, BR, EC |                        | SS           | Crowe et al. 2004: 299   |
| <i>Salix lasiandra</i> var. <i>lasiandra</i> Riparian Shrubland [Provisional]  | Pacific willow  | OR1157     | G3S3     | BM, BR, EC |                        | SS           | Crowe et al. 2004: 297   |

| Scientific Name   | Common Name  | ELCODE     | G/S Rank | Ecoregions     | W S & P                  | Wetland Type | References   |
|---|--|------------|----------|----------------|--------------------------|--------------|--|
| <i>Salix lasiolepis</i> - <i>Cornus sericea</i> / <i>Rosa woodsii</i> wet shrubland                                       | arroyo willow - creek dogwood                                | CEGL003453 | G2G3SU   | BM, BR, CP, EC | ID?                      | SS           | Titus et al. 1998; Manning and Padgett 1995; Jankovsky-Jones et al. 2001; Crowe et al. 2002  |
| <i>Salix lasiolepis</i> - <i>Rosa woodsii</i>   | arroyo willow - Wood's rose                                  | CEGL001217 | G3S2     | BM, BR, CP, EC | CA, NV                   | SS           | Titus et al. 1998; Peterson 2008; Evens et al. 2014; Crowe et al. 2004: 301; Blackburn et al. 1968a  |
| <i>Salix lemmonii</i> / <i>Rosa woodsii</i> wet shrubland   | Lemmon willow / Wood's rose                                  | CEGL002772 | G3S2     | BM, BR, CP, EC | CA, ID, NV               | SS           | Peterson 2008; Manning and Padgett 1995; Jankovsky-Jones et al. 2001; Crowe et al. 2004; Crowe et al. 2002; Crowe et al. 2004: 302   |
| <i>Salix lemmonii</i> mesic graminoides wet shrubland   | Lemmon willow / mesic graminoides                            | CEGL002069 | GNRSU    | BM, BR         | ID, NV, WY               | SS           | Titus et al. 1998; Sawyer et al. 2009; Peterson 2008; Manning and Padgett 1995; Cogan et al. 2005  |
| <i>Salix lemmonii</i> mesic-tall forbs wet shrubland  | Lemmon willow / mesic tall forbs                             | CEGL002771 | G3?SU    | BM, BR         | NV, WY                   | SS           | Titus et al. 1998; Sawyer et al. 2009; Peterson 2008; Manning and Padgett 1995; Cogan et al. 2005  |
| <i>Salix lucida</i> ssp. <i>caudata</i> / <i>Rosa woodsii</i> wet shrubland   | Pacific willow / Wood's rose                                 | CEGL002621 | G3S2     | BM, BR, CP, EC | CA?, CO?, ID, MT, NV, WY | SS           | Evenden 1990: 37, 38, 39; Manning and Padgett 1991: 300; Titus et al. 1998; Evans 1989b: 22; Jankovsky-Jones et al. 1999: 32   |
| <i>Salix lucida</i> ssp. <i>caudata</i> wet shrubland   | Pacific willow / small-fruited bulrush                       | CEGL001215 | G3QS2    | BM, BR, CP, EC | CA?, CO, MT, WA          | SS           | Titus et al. 1998; Platts et al. 1987; Kittel et al. 1999a; Kittel et al. 1996; Kittel and Lederer 1993; Jankovsky-Jones 1994; Hansen et al. 1995; Hansen et al. 1991; Carsey et al. 2003a |
| <i>Salix lutea</i> / <i>Carex utriculata</i>  | rigid willow / beaked sedge                                  | CEGL001220 | G4S2     | BM             | CA, ID, MT, NV           | SS           | Manning and Padgett 1995; Hansen et al. 1995; Hansen et al. 1991; Evenden 1990   |
| <i>Salix lutea</i> / <i>Rosa woodsii</i>  | rigid willow / golden currant - Wood's rose                  | CEGL002624 | G3S2     | BM             | CA?, ID, MT, NV          | SS           | Sawyer et al. 2009; Peterson 2008; Padgett 1982; Manning and Padgett 1995; Manning and Padgett 1992; Jankovsky-Jones et al. 2001; Holmstead 2001; Evenden 1990; Dean 1960                  |
| <i>Salix melanopsis</i> wet shrubland   | dusky willow wet shrubland                                   | CEGL008699 | GNRSU    | BR, EC         | CA                       | SS           | Keeler-Wolf et al. 2012; Keeler-Wolf et al. 2003a  |
| <i>Salix pedicellaris</i> / ( <i>Carex aquatilis</i> var. <i>dives</i> ) Wet Shrubland [Provisional]                      | Bog willow / Sitka sedge                                     | OR1158     | G2S2     | WC             |                          | SS           | Murray 2000: 35  |
| <i>Salix petrophila</i> - <i>Salix boothii</i> / <i>Eleocharis quinqueflora</i> Wet Dwarf-shrubland [Provisional]         | Rock loving willow - Booth's willow / few-flowered spikerush | OR1159     | G3S1     | BM             |                          | SS           | Crowe et al. 2004: 269; Wells 2006: 76   |
| <i>Salix petrophila</i> / <i>Carex subnigricans</i> Wet Dwarf-shrubland [Provisional]                                     | Rock loving willow / nearlyblack sedge                       | OR1160     | G3S1     | BM             |                          | SS           | Crowe et al. 2004: 268   |
| <i>Salix planifolia</i> var. <i>planifolia</i> / ( <i>Carex aquatilis</i> var. <i>dives</i> ) Wet Shrubland [Provisional] | Tea leaf willow/ Sitka sedge                                 | OR1161     | G2S2     | WC             |                          | SS           | Murray 2000: 36  |
| <i>Salix prolixa</i> / <i>Rosa woodsii</i> wet shrubland  | rigid willow - Wood's rose / stinging nettle                 | CEGL003452 | G3S3     | BM, BR, CP     |                          | SS           | Manning and Padgett 1995; Crowe et al. 2004; Crowe et al. 2002; Crowe et al. 2004: 296   |
| <i>Salix prolixa</i> / <i>Ribes aureum</i> - <i>Rosa woodsii</i>  | rigid willow - golden currant riparian                       | CEGL001233 | G3S2     | BM, BR         | NV                       | SS           | Padgett 1981: 62; Evenden 1990: 40, 41; Manning and Padgett 1991: 122, 276, 333; Titus et al. 1998   |
| <i>Salix scouleriana</i> Riparian Shrubland [Provisional]   | Scouler's willow   | OR1162     | G3S3     | BM, BR, EC     |                          | SS           | Crowe et al. 2004: 300   |
| <i>Salix sitchensis</i> / <i>Equisetum arvense</i> - <i>Petasites frigidus</i>  | Sitka willow / field horsetail - Arctic sweet-colt's-foot    | CEGL003296 | G4S4     | CR, WC         | WA                       | SS           | Diaz and Mellen 1996: 135, 139, 179; Titus et al. 1999; Titus et al. 1998; Murray 2000: 36, 37; Christy 2004: 57; McCain 2004: 50  |
| <i>Salix sitchensis</i> wet shrubland   | Sitka willow   | CEGL002896 | G4S4     | KM, WV         | WA                       | SS           | Titus and Christy 1996a; Christy 2004: 57; McCain and Christy 2005; Diaz and Mellen 1996   |
| <i>Salvia dorrii</i> / <i>Pseudoroegneria spicata</i>   | desert sage / bluebunch wheatgrass                           | CEGL001453 | G4S4     | BM, BR, EC     | CA?, WA?                 |              | ORBIC unpubl. data   |
| <i>Sanguisorba officinalis</i> - <i>Carex aquatilis</i> var. <i>dives</i> [Provisional]                                   | Burnet - Sitka sedge fen                                     | OR0027     | G2S2     | CR, WC         | WA?                      | FE           | Christy 2004: 140; Murray 2000   |
| <i>Sarcobatus vermiculatus</i> / <i>Achnatherum hymenoides</i>  | black greasewood / indian ricegrass playa                    | CEGL001373 | G4S3     | BR             | CA?, ID?, NV +           |              | Blackburn et al. 1969d; ORBIC unpubl. data   |

| Scientific Name  | Common Name  | ELCODE     | G/S Rank | Ecoregions     | W S & P                        | Wetland Type | References  |
|--|--|------------|----------|----------------|--------------------------------|--------------|---|
| <i>Sarcobatus vermiculatus</i> / <i>Atriplex confertifolia</i> - ( <i>Picrothamnus desertorum</i> , <i>Suaeda moquinii</i> ) wet shrubland | black greasewood / shadscale saltbush wet shrubland    | CEGL001371 | G5S3     | BR             | NV, UT                         | AW           | Blackburn et al. 1969a; Schulz and Hall 2011; Romme et al. 1993; Peterson 2008; Clark et al. 2009; Bundy et al. 1996  |
| <i>Sarcobatus vermiculatus</i> / <i>Distichlis spicata</i>   | black greasewood / alkali saltgrass playa              | CEGL001363 | G4S4     | BR             | CO, ID, MT, NM, NV, UT, WA, WY | AW           | Daubenmire 1970: 50, 51; Dealy et al. 1981:49; Moseley 1998: 33   |
| <i>Sarcobatus vermiculatus</i> / <i>Elymus elymoides</i>   | black greasewood /squirreltail wet shrubland           | CEGL001372 | G4S4     | BR             | NV                             | AW           | Peterson 2008; Blackburn et al. 1969b   |
| <i>Sarcobatus vermiculatus</i> / <i>Leymus cinereus</i>  | black greasewood / basin wildrye playa                 | CEGL001366 | G3S2     | BR             | CA, ID, MT, NV, WA             | AW           | Tweit and Houston 1980; Sawyer and Keeler-Wolf 1995; Peterson 2008; Mueggler and Stewart 1980; Evens et al. 2014  |
| <i>Sarcobatus vermiculatus</i> / <i>Nitrophila occidentalis</i> - <i>Suaeda nigra</i> Wet Shrubland  | black greasewood / borax weed - bushy seablite playa   | CEGL001369 | G5S5     | BR             | CA?, NV?                       | AW           | Copeland and Greene 1982; Copeland 1979   |
| <i>Sarcobatus vermiculatus</i> / <i>Sporobolus airoides</i>  | black greasewood / alkali sacaton                      | CEGL001368 | G3?S4    | BR             | CO, NM, UT, WY                 | AW           | Terwilliger et al. 1979b; Terwilliger et al. 1979a; Tendick et al. 2017; Tendick et al. 2012; Shaw et al. 1989; Salas et al. 2010b; Romme et al. 1993; Muldavin et al. 2013c; Jones 1992b; Coles et al. 2009a; Coles et al. 2008a; Clark et al. 2009  |
| <i>Sarcobatus vermiculatus</i> / <i>Suaeda nigra</i> Wet Shrubland   | black greasewood / bushy seablite playa                | CEGL001370 | G4S4     | BR             | AZ, CO, NM, NV, UT             | AW           | Thomas et al. 2009a; Tendick et al. 2017; Shiflet 1994; Peterson 2008; Küchler 1964; Donnelly et al. 2006; Branson and Owen 1970  |
| <i>Sarcocornia perennis</i> - <i>Distichlis spicata</i> - <i>Triglochin maritima</i> ( <i>Jaumea carnosa</i> ) Salt Marsh                  | Pickleweed - saltgrass - arrow grass - (fleshy jaumea) | CEGL003366 | G3S2     | CR             | BC?, WA                        | SM           | Dethier 1990; Eilers 1984; Kunze 1984; Kagan et al. 2012; Rocchio et al. 2012   |
| <i>Saussurea americana</i> - <i>Heracleum maximum</i> Wet Meadow   | American sawwort - cow parsnip                         | CEGL001945 | G4S1     | KM             | WA                             | WM           | Murray 2000: 7; Kuramoto and Bliss 1970   |
| <i>Saxifraga odontoloma</i> - <i>Senecio triangularis</i>  | brook saxifrage - arrowleaf groundsel riparian         | CEGL001985 | G3S3     | BM, EC, WC     | CO                             | WM           | Diaz and Mellen 1996: 183; Crowe and Clausnitzer 1997: 213; Titus et al. 1998; Kovalchik 2001; Komarkova 1976; Crowe et al. 2004; Carsey et al. 2003a   |
| <i>Schoenoplectus</i> ( <i>americanus</i> , <i>pungens</i> )   | (Chairmaker's bulrush, common threesquare) tidal marsh | CEGL003367 | G3S2     | CR             | BC, WA                         | TM           | Frenkel et al. 1978: 57, 89, 103; Eilers 1984: 4, 8; Dethier 1990: 33; Christy and Putera 1993: 39; Kunze 1994: 58; Christy et al. 1998: 128  |
| <i>Schoenoplectus acutus</i>   | hardstem bulrush marsh                                 | CEGL001840 | G5S5     | ALL            | CA, CO, ID, MT, NV, UT, WA     | AW, FM, SM   | Christy and Cornelius 1980; Dethier 1990: 36; Kunze 1994: 24, 58, 81; Christy et al. 1998: 116; Moseley 1998: 36; Youngblood et al. 1985a; Von Loh et al. 2002; Thomas 1980; Sproul et al. 2011; Sawyer et al. 2009; Sawyer and Keeler-Wolf 1995; Salas et al. 2010b; Peterson 2008; Padgett et al. 1989; McCain and Christy 2005; Macdonald 1977; Kierstead and Pogson 1976; Kagan et al. 2012; Jefferson 1975; Jankovsky-Jones et al. 1999; Hansen et al. 1995; Hansen et al. 1991; Griffiths 1902; Evans 1989b; Evans 1989a; Erixson et al. 2011b; Dethier 1990; Crawford 2003; Copass and Ramm-Granberg 2016a; Coles et al. 2008a; Christy and Cornelius 1980; Bundy et al. 1996; Buck-Diaz et al. 2012; Christy 2004: 141; Crowe et al. 2004: 70 |
| <i>Schoenoplectus americanus</i> Western Marsh (interior alkaline)   | chairmaker's bulrush playa                             | CEGL001841 | G3S3     | BM, BR, CP, EC | AZ, CA, CO, ID, MT?, WA        | AW           | Kierstead and Pogson 1976: 1-12; Titus et al. 1998; Tuhy 1981; Sproul et al. 2011; Sawyer et al. 2009; Salas et al. 2010b; Reid and Hall 2010; Keeler-Wolf and Vaghti 2000; Keeler-Wolf 2007; Kearsley et al. 2015; Hansen et al. 1995; Evens et al. 2014; Evans 1989a; Crowe et al. 2004: 133; Christy et al. 1998; Buck-Diaz et al. 2012; Bradley 1970  |

| Scientific Name   | Common Name   | ELCODE     | G/S Rank | Ecoregions         | W S & P                                  | Wetland Type | References   |
|---|---|------------|----------|--------------------|--|--------------|--|
| <i>Schoenoplectus pungens</i> (estuarine) Salt Marsh [Provisional]    | Common three-square (freshwater tidal)                    | OR1164     | G3S2     | CR, WV             | WA                                       | SM           | Christy et al. 1998: 128, as <i>S. americanus</i>  |
| <i>Schoenoplectus pungens</i> Marsh (interior alkaline)               | Common three-square (interior alkaline)                   | CEGL001587 | G3S3     | BR                 | AB, AZ, BC, CO, ID, MT, NM, NV, UT, WY + | AW           | Brotherson et al. 1984; Bundy et al. 1996; Butler et al. 2002; Carsey et al. 2003a; Clark et al. 2009; Coles et al. 2009a; Coles et al. 2008a; Hansen et al. 1995; Hansen et al. 1991; Jones and Walford 1995; Kittel et al. 1999b; Lauver et al. 1999; MacKenzie and Moran 2004; Muldavin et al. 2000a; Thompson and Hansen 2002; Walford 1996  |
| <i>Schoenoplectus subterminalis</i>                                   | Swaying bulrush   | CEGL003309 | G4S3     | CR                 | WA                                       | AB           | Kunze 1994: 24; Stumpf et al. 2017; Osvald 1933  |
| <i>Schoenoplectus tabernaemontani</i>                                 | softstem bulrush marsh                                    | CEGL002623 | G5S5     | All                | AB, BC, CA, CO, ID, MT, WA, WY           | FM           | Smith and Smith 1976: 132; Boss 1983: 126, 146; Sanville et al. 1986: 127; Thomas 1980: 6; Viereck et al. 1992: 181; Kovalchik 1993: 181; Kunze 1994: 49; Rodwell 1995b: 206; Titus et al. 1998; Crowe et al. 2004: 70   |
| <i>Scirpus microcarpus</i>  | small-fruited bulrush marsh                               | CEGL003322 | G4S4     | All                | CA, ID, WA                               | FM           | Frenkel et al. 1978: 82; Ganskopp 1979: 39; Boss 1983: 113; Kovalchik 1987: 112; Evenden 1990: 44; Kovalchik 1993: 179; Diaz and Mellen 1996: 187; Titus 1996; Crowe and Clausnitzer 1997: 206; Titus et al. 1998; Christy 2001a: 37; Crowe et al. 2004: 134; Murray 2000: 25; Christy 2004: 142; Crowe et al. 2004: 134; Wells 2006: 133  |
| <i>Senecio triangularis</i>   | arrowleaf groundsel riparian                              | CEGL001987 | G5S4     | BM, BR, CR, EC, WC | AB, AK?, CA?, ID, MT, WA, WY             | FM, WM       | Hemstrom et al. 1987: 251; Kovalchik 1987: 124; Manning and Padgett 1991: 95, 365, 373; Diaz and Mellen 1996: 191; Crowe and Clausnitzer 1997: 212; Titus et al. 1998; Murray 2000: 26; Christy 2004: 143; Crowe et al. 2004: 160, 162; McCain 2004: 72, 154; Wells 2006: 154; McCain et al. 2014: 116, 219  |
| <i>Senecio triangularis</i> - <i>Mimulus guttatus</i> wet meadow      | Arrowleaf ragwort - seep monkeyflower wet meadow          | CEGL001988 | G4S4     | BM, BR, EC, WC     | WY                                       | WM           | Norton et al. 1981; Mattson 1984; Crowe et al. 2004; Cogan et al. 2005   |
| <i>Senecio triangularis</i> - <i>Veratrum californicum</i> wet meadow | Arrowleaf ragwort - California false hellebore wet meadow | CEGL001989 | G4S4     | BR, EC, KM, WC     | CA                                       | WM           | Sawyer et al. 2009; Manning and Padgett 1991; Kovalchik 1987; Keeler-Wolf et al. 2012; Keeler-Wolf et al. 2003a; Hemstrom et al. 1987  |
| <i>Sequoia sempervirens</i> / <i>Polystichum munitum</i>              | coast redwood / sword fern                                | CEGL000081 | G2S1     | CR                 | CA                                       |              | Mahony and Stuart 2000: 57; Stumpf et al. 2017; Frenkel 1976   |
| <i>Sequoia sempervirens</i> / <i>Vaccinium ovatum</i>                 | coast redwood / evergreen huckleberry                     | CEGL000082 | G2S1     | CR                 | CA                                       |              | Atzet and Wheeler 1984: 158; Stumpf et al. 2017  |
| <i>Sparganium angustifolium</i>                                       | narrowleaf bur-reed marsh                                 | CEGL001990 | G4S3     | CR, WV             | CA, CO, ID, WA                           | FM           | Kovalchik 1993: 185; Kunze 1994: 50, 59; Christy and Putera 1993: 40; Titus et al. 1996; Titus et al. 1998; Christy et al. 1998: 138; Christy 2004: 144; Titus and Christy 1996a; Stumpf et al. 2017; Sawyer et al. 2009; Sawyer and Keeler-Wolf 1995; Salas et al. 2005; Robbins 1918; Ramaley and Robbins 1909; Ramaley 1919a; Murray 2000; McCain and Christy 2005; Kovalchik 1993; Komarkova 1986; Keeler-Wolf et al. 2012; Keeler-Wolf et al. 2003a; Kagan et al. 2012; Hall and Hansen 1997; Fuller 1930; Crowe et al. 2004; Cooper 1986a; Clements 1904; Boggs 2000 |
| <i>Sparganium eurycarpum</i>  | broadfruited bur-reed marsh                               | CEGL003323 | G4S3     | BR, CP, CR, WV     | CA?, CO, ID, WA                          | FM           | Kunze 1994: 81; Christy and Brophy 2002; Christy 2004: 145; Salas et al. 2010b; McCain and Christy 2005; Kunze 1994; Evans 1989b; Christy 2013: 47   |
| <i>Spartina gracilis</i>  | alkali cordgrass playa                                    | CEGL001588 | G3S2     | BM, BR             | CA, CO, ID, MT, NV, UT, WA, WY           | AW           | Ungar 1974c; Ungar 1972; Sawyer et al. 2009; Sawyer and Keeler-Wolf 1995; Salas et al. 2010b; Jones 1992b; Hanson 1929; Crawford 2003; Coles et al. 2008a; Carsey et al. 2003a; Baker 1984b  |

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|--|---|------------|----------|--------------------|---------------------|--------------|---|
| <i>Spartina pectinata</i>  | prairie cordgrass marsh   | CEGL001476 | G3S2     | BM, CP             | CO, UT, WA          | AW           | Weaver 1965; Kittel et al. 1999b; Kittel et al. 1997a; Kittel et al. 1996; Keim 1932; Jones and Walford 1995; Jones 1992b; Johnston 1987; Hansen et al. 1995; Hansen et al. 1991; Hansen et al. 1989; Hansen and Hoffman 1988; Evans 1989a; Cooper et al. 2001; Coles et al. 2008a; Carsey et al. 2003a                                 |
| <i>Sphagnum</i> ( <i>angustifolium</i> , <i>capillifolium</i> , <i>fuscum</i> , <i>mendocinum</i> , <i>miyabeanum</i> , <i>pacificum</i> , <i>palustre</i> ) Fen [Provisional] | Sphagnum  | OR1166     | G3S2     | CR, WV, WC         |                     | FE           | Murray 2000: 11, 12   |
| <i>Spiraea douglasii</i>   | Douglas spiraea shrub swamp   | CEGL001129 | G5S4     | CR, EC, KM, WC, WV | AK?, BC, ID, MT, WA | SS           | Thomas 1980; Streatfield and Frenkel 1997; Seyer 1983; McCain and Christy 2005; Kunze 1994; Kovalchik 1993; Kovalchik 1987; Kagan et al. 2012; Jankovsky-Jones et al. 1999; Hemstrom et al. 1987; Hansen et al. 1995; Hansen et al. 1991; Glad et al. 1987; Crowe et al. 2004; Christy et al. 1998; Christy 2004: 58; Boggs et al. 1990 |
| <i>Spiraea douglasii</i> - <i>Rosa woodsii</i> / <i>Scirpus microcarpus</i> [Provisional]  | Douglas spiraea - pearhip rose / small-fruited bulrush                        | OR1167     | G3S3     | EC                 |                     | SS           | Crowe et al. 2004: 228  |
| <i>Spiraea douglasii</i> - <i>Vaccinium uliginosum</i> / <i>Carex</i> ( <i>aquatilis</i> var. <i>dives</i> , <i>exsiccata</i> ) Fen or Wet Shrubland [Provisional]             | Douglas spiraea - bog bilberry / sedge (Sitka sedge, western inflated sedge ) | OR1168     | G3S2     | WC                 |                     | FE, SS       | Murray 2000: 37, 38; McCain et al. 2014: 120  |
| <i>Spiraea douglasii</i> - <i>Vaccinium uliginosum</i> / <i>Carex obnupta</i> - <i>Deschampsia cespitosa</i>   | Douglas spiraea - bog blueberry / slough sedge / sphagnum                     | OR0028     | G2S2     | CR                 |                     | FE           | Christy 2001a: 29; Christy 2004: 59   |
| <i>Spiraea douglasii</i> - <i>Viburnum edule</i> / <i>Viola palustris</i> Wet Shrubland [Provisional]  | Douglas spiraea - highbush cranberry / marsh violet                           | OR1170     | G2S2     | WV                 |                     | SS           | Murray 2000: 38   |
| <i>Spiraea douglasii</i> / Sphagnum  | Douglas spiraea / sphagnum fen  | CEGL003416 | G3S1     | WV                 | BC, WA              | FE           | Kunze 1994: 18; Titus et al. 1996; Christy 2001a: 28; Christy 2004: 60; McCain and Christy 2005   |
| <i>Sporobolus airoides</i> - <i>Distichlis spicata</i>   | alkali saltgrass - alkali sacaton   | CEGL001687 | G4S3     | BR                 | CA?, CO, NM, UT +   | AW           | Young et al. 1986; Stevens et al. 2007; Salas et al. 2010b; Neid et al. 2007; Muldavin et al. 2000b; Muldavin et al. 2000a; Muldavin and Mehlhop 1992   |
| <i>Sporobolus cryptandrus</i> - <i>Poa secunda</i> grassland   | sand dropseed - Sandberg bluegrass  | CEGL001516 | G2S1     | BM, BR             | ID, WA              |              | Johnson and Simon 1987: 216; Easterly and Salstrom 1997: 31; Tisdale 1986; Johnson and Simon 1985; Daubenmire 1970  |
| <i>Symphoricarpos albus</i> - <i>Rosa woodsii</i>  | common snowberry - Wood's rose  | CEGL001130 | G3S3     | BM, CP             | ID, WA              |              | Daubenmire 1970; Tisdale 1979: 7; Hall 1973; Tisdale 1986; Tisdale 1979; Reid et al. 2004; Johnson and Simon 1987; Daubenmire 1970  |
| <i>Symphoricarpos oreophilus</i> shrubland   | mountain snowberry shrubland  | CEGL002951 | G4S2     | BR                 | CO, NV, UT, WY      |              | Tendick et al. 2011b; Tendick et al. 2011a; Schulz and Hall 2011; Salas et al. 2010b; Romme et al. 1993; Komarkova 1986; Johnston 1987; Johnson and Clausnitzer 1992; Friesen et al. 2010; Cogan et al. 2012; Cogan et al. 2005; Cogan et al. 2004; Clark et al. 2009   |
| <i>Thuja plicata</i> - ( <i>Abies grandis</i> ) / <i>Achlys triphylla</i>  | western red cedar (grand fir) / vanillaleaf                                   | CEGL002669 | G2S2     | EC                 | WA                  |              | Topik et al. 1988: 115; Topik 1989  |
| <i>Thuja plicata</i> - <i>Acer macrophyllum</i> - <i>Abies grandis</i> / ( <i>Oemleria cerasiformis</i> ) / <i>Polystichum munitum</i>   | bigleaf maple - western red cedar / Indian plum                               | CEGL002846 | G1S1     | WV                 | BC, WA              |              | Hawk 1973: 50; Ward et al. 1998; Meidinger et al. 2005; Green and Klinka 1994; Cadrin and Wolowicz 2005; Brown and Hebda 1999; McCain 2004: 285   |
| <i>Thuja plicata</i> - <i>Pseudotsuga menziesii</i> - <i>Abies grandis</i> / <i>Mahonia nervosa</i> / <i>Polystichum munitum</i> forest  | western red cedar - western hemlock / dwarf Oregongrape                       | CEGL002848 | G1S1     | KM, WC             | BC, WA              |              | Atzet and Wheeler 1984: 114; Ward et al. 1998; Meidinger et al. 2005; Green and Klinka 1994; Chappell 2006b; Chappell 1997; Cadrin and Wolowicz 2005; Brown and Hebda 1999  |
| <i>Thuja plicata</i> - <i>Tsuga heterophylla</i> / <i>Lysichiton americanus</i> Swamp Forest   | western red cedar - western hemlock / skunk cabbage                           | CEGL001787 | G3S1     | CR, WC, WV         | BC?, WA             | FW           | Franklin 1966: 87; Henderson 1970: 42; Henderson 1979: 200; Topik et al. 1986: 70; Henderson et al. 1989: 378; Henderson et al. 1992: 48; Kunze 1994: 34, 94; Crawford et al. 2009; Murray 2000: 45; McCain 2004: 173; Christy 2004: 34   |

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|---|---|------------|----------|----------------|-----------------|--------------|---|
| Thuja plicata - Tsuga heterophylla / Oplopanax horridus Rocky Mountain Swamp Forest                                 | western red cedar - western hemlock / devils club                               | CEGL000479 | G3S1     | BM, WC         | BC?, ID, MT, WA | FW           | Williams et al. 1995; Williams et al. 1990b; Williams and Lillybridge 1985; Utzig et al. 1986; Reid et al. 2004; Pfister et al. 1977; Parker 1986a; Kovalchik 2001; Kovalchik 1993; Hop et al. 2007; Hansen et al. 1995; Franklin 1966; Douglas 1971; Daubenmire and Daubenmire 1968; Daubenmire 1952; Cooper et al. 1987; Braumandl and Curran 1992  |
| Thuja plicata - Tsuga heterophylla / Oxalis oregana   | western red cedar - western hemlock / Oregon oxalis                             | CEGL000483 | G2S2     | CR, WC         |                 |              | Atzet and McCrimmon 1990: 171   |
| Thuja plicata - Tsuga heterophylla / Polystichum munitum  | western red cedar - western hemlock / swordfern                                 | CEGL000468 | G1S1     | WC, WV         | BC, WA          |              | Rocchio et al. 2012; Reid et al. 1994; Meidinger et al. 2005; Green and Klinka 1994; Fonda and Bernardi 1976; Chappell 2006b; Chappell 1997; Chappell 1994; Agee 1987   |
| Thuja plicata - Tsuga heterophylla / Whipplea modesta   | western red cedar - western hemlock / whipplevine                               | CEGL000486 | G2G3S3   | WC             | CA?             |              | Atzet and McCrimmon 1990: 199   |
| Thuja plicata / Athyrium filix-femina   | western red cedar / ladyfern  | CEGL000473 | G3S1     | WC             | ID, MT, WA      | FW           | Kovalchik 1987: 28; Cooper et al. 1991: 28; Diaz and Mellen 1996: 35; Hop et al. 2007; Hansen et al. 1995; Hansen et al. 1991; Diaz and Mellen 1996; Daubenmire and Daubenmire 1968; Cooper et al. 1987; Reid et al. 2004; Lillybridge et al. 1995  |
| Thuja plicata / Athyrium filix-femina - Stachys chamissonis var. cooleyae forest                                    | western red-cedar / common ladyfern - Cooley's hedge-nettle                     | CEGL007290 | GNRS2    | CR, WC         | WA              |              | Meidinger et al. 2005   |
| Thuja plicata / Linnaea borealis  | western red cedar / twinflower  | CEGL000089 | G2S1     | EC             | WA              |              | Williams 1978: 66; Williams and Winward 1976; Atzet and McCrimmon 1990  |
| Thuja plicata / Rubus spectabilis / Oxalis oregana  | western red cedar / salmonberry / Oregon oxalis                                 | CEGL007292 | GNRS2    | WC             | WA              | FW           | Diaz and Mellen 1996: 39; Meidinger et al. 2005   |
| Torreyochloa pallida var. pauciflora [Provisional]  | weak alkaligrass meadow   | OR0029     | G2S2     | BM, CR, EC, WV | ID?, WA?        | FM           | Crowe and Clausnitzer 1997: 212; Titus et al. 1998; Christy 2004: 146; Crowe et al. 2004: 65; Murray 2000: 27   |
| Trichophorum cespitosum Pacific fen   | tufted bulrush Pacific fen  | CEGL002679 | G5S1     | WC             | AK?, BC?, WA? + | FE           | Viereck et al. 1992; Shephard 1995; McCain and Christy 2005; Murray 2000: 28; Christy 2004: 147   |
| Triglochin maritima - (Salicornia depressa)   | Seaside Arrow-grass - (Virginia glasswort) salt marsh                           | CEGL003381 | G4S2     | CR             | BC?, WA         | SM           | Eilers 1975a: 229; Eilers 1976: 27; Dethier 1990: 34, 35; Viereck et al. 1992: 199  |
| Triteleia hyacinthina Wet Outcrop [Provisional]   | Hyacinth brodiaea   | OR1172     | G2S2     | KM, WV         | CA?             | WP           | Titus and Christy 1996b; Christy 2004: 148  |
| Tsuga heterophylla - (Pseudotsuga menziesii) / Oplopanax horridus / Polystichum munitum forest                      | western Hemlock - (Douglas-fir) / devil's-club / western swordfern              | CEGL000497 | G4S3     | CR, WC         | BC, WA          | FW           | Franklin 1966; Franklin 1988: 54; Hemstrom and Logan 1986: 75; Halverson et al. 1986: 71; Topik et al. 1986: 74; Henderson et al. 1989: 314; Henderson et al. 1992: 50; McCain and Diaz 2002a; McCain and Diaz 2002b; Halverson et al. 1986: 90   |
| Tsuga heterophylla - (Pseudotsuga menziesii) / Vaccinium alaskaense - Mahonia nervosa - (Gaultheria shallon) forest | western Hemlock - (Douglas-fir) / Alaska blueberry - Cascade barberry - (salal) | CEGL005574 | G3G4S3   | WC             | AK, WA          |              | Worley 1977; Topik et al. 1986; Shephard 1995; Pawuk and Kissinger 1989; Meidinger et al. 2005; McCain and Diaz 2002b; McCain and Diaz 2002a; Martin et al. 1995; Henderson et al. 1992; Henderson et al. 1989; Henderson et al. 1986; Henderson et al. 1985; Henderson and Peter 1983; Henderson and Peter 1982; Henderson and Peter 1981; Hemstrom et al. 1987; Halverson et al. 1986; Franklin et al. 1979; Fox 1983; DeVelice et al. 1994; DeMeo et al. 1992; del Moral and Long 1977; Crawford et al. 2009; Borchers et al. 1989; Boggs 2000 |
| Tsuga heterophylla - (Pseudotsuga menziesii) / Vaccinium alaskaense / Cornus unalaschkensis forest                  | western Hemlock - (Douglas-fir) / Alaska blueberry / bunchberry                 | CEGL005572 | G4S3     | WC             | AK, WA          |              | Halverson et al. 1986: 86; Topik et al. 1986: 86; Hemstrom et al. 1987: 178; McCain and Diaz 2002b; Halverson et al. 1986: 91; Topik et al. 1986: 78; Henderson et al. 1989: 290; Henderson et al. 1992: 60;  |

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|--|---|------------|----------|------------|-------------|--------------|---|
| <i>Tsuga heterophylla</i> - ( <i>Pseudotsuga menziesii</i> ) / <i>Vaccinium alaskaense</i> / <i>Polystichum munitum</i> forest                         | western Hemlock - (Douglas-fir) / Alaska blueberry / western swordfern              | CEGL005573 | G3S3     | WC         | AK, WA      |              | Worley 1977; Topik et al. 1986; Shephard 1995; Pawuk and Kissinger 1989; Meidinger et al. 2005; McCain and Diaz 2002b; McCain and Diaz 2002a; Martin et al. 1995; Henderson et al. 1992; Henderson et al. 1989; Henderson et al. 1986; Henderson et al. 1985; Henderson and Peter 1983; Henderson and Peter 1982; Henderson and Peter 1981; Hemstrom et al. 1987; Halverson et al. 1986; Franklin et al. 1979; Fox 1983; DeVelice et al. 1994; DeMeo et al. 1992; del Moral and Long 1977; Crawford et al. 2009; Borchers et al. 1989; Boggs 2000   |
| <i>Tsuga heterophylla</i> - ( <i>Pseudotsuga menziesii</i> , <i>Thuja plicata</i> ) / <i>Polystichum munitum</i> - <i>Athyrium filix-femina</i> forest | western hemlock - (Douglas-fir, western red cedar) / swordfern - ladyfern           | CEGL005576 | G4S4     | WC         | BC, CA?, WA | FW           | Hemstrom and Logan 1986: 234; Topik et al. 1986; Meidinger et al. 2005; McCain and Diaz 2002b; McCain and Diaz 2002a; Henderson et al. 1992; Henderson et al. 1989; Henderson et al. 1986; Henderson et al. 1985; Henderson and Peter 1984; Henderson and Peter 1983; Henderson and Peter 1982; Henderson and Peter 1981; Hemstrom et al. 1987; Hemstrom and Logan 1986; Halverson et al. 1986; Green and Klinka 1994; Franklin et al. 1988; Franklin et al. 1979; Dyrness et al. 1974a; Crawford et al. 2009; Copass and Ramm-Granberg 2016a; Chappell 2006b; Chappell 2006a; Chappell 2001; Chappell 1997; Bigley and Hull 1995; Atzet and McCrimmon 1990 |
| <i>Tsuga heterophylla</i> - <i>Abies amabilis</i> - ( <i>Pseudotsuga menziesii</i> ) / <i>Hylocomium splendens</i> forest                              | western Hemlock - Pacific silver fir - (Douglas-fir) / splendid feathermoss         | CEGL002833 | G2G3S2   | WC         | BC, WA      |              | Meidinger et al. 2005; Green and Klinka 1994; Eng 2005  |
| <i>Tsuga heterophylla</i> - <i>Abies amabilis</i> - ( <i>Pseudotsuga menziesii</i> ) / <i>Vaccinium alaskaense</i> forest                              | western Hemlock - Pacific silver fir - (Douglas-fir) / Alaska blueberry             | CEGL005518 | G4S3     | WC         | BC, WA      |              | Murray 2000; Meidinger et al. 2005; Henderson et al. 1992; Henderson et al. 1989; Henderson et al. 1986; Henderson and Peter 1984; Henderson and Peter 1982; Henderson and Peter 1981; Henderson 1981; Green and Klinka 1994; Franklin 1966; Crawford et al. 2009; Brockway et al. 1983; Brockway and Topik 1984; Bigley and Hull 1992  |
| <i>Tsuga heterophylla</i> - <i>Abies amabilis</i> - <i>Pseudotsuga menziesii</i> / <i>Gaultheria shallon</i> forest                                    | western Hemlock - Pacific silver fir - Douglas-fir / salal                          | CEGL005567 | GNRS4    | WC         | BC, WA      |              | Meidinger et al. 2005; McCain and Diaz 2002b; Henderson et al. 1992; Henderson et al. 1989; Hemstrom et al. 1987; Hemstrom et al. 1982; Franklin et al. 1988; Crawford et al. 2009; Brockway et al. 1983; Brockway and Topik 1984; Bigley and Hull 1992   |
| <i>Tsuga heterophylla</i> - <i>Abies amabilis</i> - <i>Pseudotsuga menziesii</i> / <i>Oxalis oregana</i>   | western hemlock - Pacific silver fir - Douglas-fir / wood sorrel                    | CEGL005569 | GNRS4    | WC         | WA          |              | Hemstrom et al. 1982: 33; Hemstrom et al. 1987: 138; Bigley and Hull 1995: 25; McCain and Diaz 2002a; Meidinger et al. 2005; Henderson et al. 1989; Henderson et al. 1986; Fonda and Bliss 1969; Bigley and Hull 1995   |
| <i>Tsuga heterophylla</i> - <i>Abies amabilis</i> - <i>Pseudotsuga menziesii</i> / <i>Oxalis oregana</i> forest  | western Hemlock - Pacific silver fir - Douglas-fir / redwood sorrel                 | CEGL005569 | G4S4     | WC         | WA          |              | Meidinger et al. 2005; McCain and Diaz 2002a; Henderson et al. 1989; Henderson et al. 1986; Hemstrom et al. 1987; Hemstrom et al. 1982; Fonda and Bliss 1969; Bigley and Hull 1995  |
| <i>Tsuga heterophylla</i> - <i>Abies amabilis</i> / <i>Oxalis oregana</i> - <i>Blechnum spicant</i> forest   | western Hemlock - Pacific silver fir / redwood sorrel - Deer Fern                   | CEGL005564 | G3S2S3   | WC         | WA          |              | Meidinger et al. 2005; McCain and Diaz 2002a; Henderson et al. 1989; Henderson et al. 1986; Hemstrom et al. 1987; Hemstrom et al. 1982; Fonda and Bliss 1969; Crawford et al. 2009; Bigley and Hull 1995  |
| <i>Tsuga heterophylla</i> - <i>Abies amabilis</i> / <i>Vaccinium alaskaense</i>  | western hemlock - Pacific silver fir / Alaska blueberry                             | CEGL005518 | G4S3     | WC         | BC, WA      |              | Brockway et al. 1983: 60; Hemstrom et al. 1982: 51; Hemstrom et al. 1987: 105; Henderson et al. 1992: 104   |
| <i>Tsuga heterophylla</i> - <i>Abies amabilis</i> / <i>Vaccinium alaskaense</i> / <i>Rubus pedatus</i> forest  | western Hemlock - Pacific silver fir / Alaska blueberry / strawberry-leaf raspberry | CEGL005565 | G4G5S4   | KM         | BC, WA      |              | Meidinger et al. 2005; Henderson et al. 1992; Henderson et al. 1989; Hemstrom et al. 1987; Hemstrom et al. 1982; Green and Klinka 1994; Franklin et al. 1988; Dyrness et al. 1974a; Crawford et al. 2009; Brockway et al. 1983; Bigley and Hull 1995; Banner et al. 1993  |

| Scientific Name  | Common Name  | ELCODE     | G/S Rank | Ecoregions | W S & P     | Wetland Type | References   |
|--|--|------------|----------|------------|-------------|--------------|--|
| <i>Tsuga heterophylla</i> - <i>Notholithocarpus densiflorus</i> / <i>Vaccinium ovatum</i> - <i>Rhododendron macrophyllum</i>                                   | western hemlock / tan oak / evergreen huckleberry - western rhododendron                 | CEGL000080 | G4S3     | CR, KM     | CA          |              | Atzet and Wheeler 1984: 159, 160, 163; Atzet et al. 1996; Stumpf et al. 2017   |
| <i>Tsuga heterophylla</i> - <i>Pseudotsuga menziesii</i> - <i>Abies amabilis</i> / <i>Vaccinium parvifolium</i> / <i>Achlys triphylla</i> forest               | western Hemlock - Douglas-fir - Pacific silver fir / red huckleberry / sweet after death | CEGL005575 | G4S3     | WC         | BC, CA?, WA |              | Topik et al. 1986; Meidinger et al. 2005; McCain and Diaz 2002b; McCain and Diaz 2002a; Henderson et al. 1992; Henderson et al. 1989; Henderson et al. 1986; Henderson et al. 1985; Henderson and Peter 1984; Henderson and Peter 1983; Henderson and Peter 1982; Henderson and Peter 1981; Hemstrom et al. 1987; Hemstrom and Logan 1986; Halverson et al. 1986; Green and Klinka 1994; Franklin et al. 1988; Franklin et al. 1979; Franklin and Dyrness 1973; Dyrness et al. 1974a; Chappell 2006b; Bigley and Hull 1995; Atzet and McCrimmon 1990 |
| <i>Tsuga heterophylla</i> - <i>Pseudotsuga menziesii</i> / <i>Mahonia nervosa</i> - <i>Chimaphila menziesii</i> forest   | western Hemlock - Douglas-fir / Cascade barberry - Little Prince's-pine                  | CEGL005570 | G3S3     | KM, WC     | WA          |              | Topik et al. 1986; Meidinger et al. 2005; McCain and Diaz 2002b; McCain and Diaz 2002a; Klinka et al. 1996; Henderson et al. 1992; Henderson et al. 1989; Henderson et al. 1986; Henderson and Peter 1984; Henderson and Peter 1983; Henderson and Peter 1982; Henderson and Peter 1981; Henderson 1981; Hemstrom et al. 1987; Hemstrom and Logan 1986   |
| <i>Tsuga heterophylla</i> - <i>Pseudotsuga menziesii</i> / <i>Rhododendron macrophyllum</i> - <i>Vaccinium alaskaense</i> / <i>Cornus unalaschensis</i> forest | western Hemlock - Douglas-fir / Pacific rhododendron - Alaska blueberry / bunchberry     | CEGL005571 | G4S4     | WC         | WA          |              | Moir et al. 1973b; Meidinger et al. 2005; McCain and Diaz 2002b; McCain and Diaz 2002a; Henderson et al. 1989; Henderson et al. 1986; Hemstrom et al. 1987; Hemstrom et al. 1982; Hemstrom and Logan 1986; Halverson et al. 1986; Dyrness et al. 1974a; Atzet and McCrimmon 1990   |
| <i>Tsuga heterophylla</i> - <i>Pseudotsuga menziesii</i> / <i>Vaccinium alaskaense</i> / <i>Oxalis oregana</i> forest  | western Hemlock - Douglas-fir / Alaska blueberry / redwood sorrel                        | CEGL005588 | G4S3     | WC         | CA, WA      |              | Topik et al. 1986; Meidinger et al. 2005; McCain and Diaz 2002b; McCain and Diaz 2002a; Henderson et al. 1989; Henderson et al. 1986; Hemstrom et al. 1987; Hemstrom and Logan 1986; Fonda 1974; Diaz and Mellen 1996; Crawford et al. 2009; Chappell 2006b; Chappell 2001; Chappell 1997; Atzet and McCrimmon 1990  |
| <i>Tsuga heterophylla</i> / <i>Acer circinatum</i> / <i>Lysichiton americanus</i>  | western hemlock / vine maple / skunk cabbage   | CEGL000093 | G4S4     | CR, EC, WC | WA?         | FW           | Halverson et al. 1986: 68; Topik et al. 1986: 70; McCain and Diaz 2002b  |
| <i>Tsuga heterophylla</i> / <i>Acer glabrum</i> / <i>Linnaea borealis</i>  | western hemlock / Douglas maple / twinflower   | CEGL002608 | G3S3     | WC         |             |              | Atzet and McCrimmon 1990: 150  |
| <i>Tsuga heterophylla</i> / <i>Chrysolepis chrysophylla</i> var. <i>chrysophylla</i>   | western hemlock / golden chinquapin  | CEGL000099 | G3S3     | CR, KM, WC |             |              | Dyrness et al. 1974a: 19   |
| <i>Tsuga heterophylla</i> / <i>Clintonia uniflora</i>  | western hemlock / queencup beadlily  | CEGL000493 | G4S4     | WC         | ID, MT, WA  |              | Atzet and McCrimmon 1990: 80; Marsh et al. 1987: 64; Reid et al. 2004; Pfister et al. 1977; Lillybridge et al. 1995; Hop et al. 2007; Daubenmire and Daubenmire 1968; Cooper et al. 1987   |
| <i>Tsuga heterophylla</i> / <i>Hydrophyllum tenuipes</i> swamp forest  | western Hemlock / Pacific waterleaf swamp forest   | CEGL000103 | G4S4     | WC         |             | FW           | Campbell and Franklin 1979   |
| <i>Tsuga heterophylla</i> / <i>Ledum glandulosum</i> / <i>Carex obnupta</i> - <i>Lysichiton americanus</i>   | western hemlock / western Labrador tea / slough sedge - skunk cabbage swamp              | CEGL000477 | G1S1     | CR         |             | FW           | Howarth 1995: 10; Christy 2001a: 19; Christy 2004: 35; McCain and Christy 2005; Glad et al. 1987; Franklin 1966  |
| <i>Tsuga heterophylla</i> / <i>Linnaea borealis</i>  | western hemlock / twinflower   | CEGL000104 | G3S3     | WC         | WA          |              | Moir et al. 1973b: 9; Williams 1978: 69; Hemstrom et al. 1987: 238; McCain and Diaz 2002b  |
| <i>Tsuga heterophylla</i> / <i>Mahonia nervosa</i> var. <i>nervosa</i> / <i>Linnaea borealis</i>   | western hemlock / dwarf Oregonrape / twinflower  | CEGL000097 | G3S3     | WC         | CA?         |              | Dyrness et al. 1974a: 31; Atzet and McCrimmon 1990: 154  |
| <i>Tsuga heterophylla</i> / <i>Mahonia nervosa</i> var. <i>nervosa</i> / <i>Oxalis oregana</i>   | western hemlock / dwarf Oregonrape / Oregon oxalis                                       | CEGL000098 | G3S3     | CR, WC     | WA          |              | Hemstrom et al. 1987: 190; Atzet and McCrimmon 1990: 183; McCain and Diaz 2002a; McCain and Diaz 2002b   |



| Scientific Name  | Common Name  | ELCODE     | G/S Rank | Ecoregions | W S & P | Wetland Type | References  |
|--|--|------------|----------|------------|---------|--------------|---|
| Tsuga heterophylla / Polystichum munitum - Blechnum spicant forest                                 | western Hemlock / western swordfern - Deer Fern                                      | CEGL005559 | G3S2     | CR, WC     | CA?, WA |              | Topik et al. 1986; Meidinger et al. 2005; McCain and Diaz 2002b; McCain and Diaz 2002a; Henderson et al. 1992; Henderson et al. 1989; Henderson et al. 1986; Henderson et al. 1985; Henderson and Peter 1984; Henderson and Peter 1983; Henderson and Peter 1982; Henderson and Peter 1981; Hemstrom et al. 1987; Hemstrom and Logan 1986; Halverson et al. 1986; Franklin et al. 1988; Franklin et al. 1979; Franklin and Dyrness 1973; Dyrness et al. 1974a; Crawford et al. 2009; Chappell 2006b; Chappell 2001; Chappell 1997; Bigley and Hull 1995; Atzet and McCrimmon 1990 |
| Tsuga heterophylla / Polystichum munitum - Oxalis oregana forest                                   | western Hemlock / western swordfern - redwood sorrel                                 | CEGL005586 | G3S3     | CR, KM, WC | CA, WA  |              | Topik et al. 1986; Meidinger et al. 2005; McCain and Diaz 2002b; McCain and Diaz 2002a; Henderson et al. 1989; Henderson et al. 1986; Hemstrom et al. 1987; Hemstrom and Logan 1986; Fonda 1974; Diaz and Mellen 1996; Crawford et al. 2009; Chappell 2006b; Chappell 2001; Chappell 1997; Atzet and McCrimmon 1990   |
| Tsuga heterophylla / Quercus sadleriana  | western hemlock / Sadler oak   | CEGL000110 | G2S2     | KM         | CA?     |              | Atzet and Wheeler 1984: 115   |
| Tsuga heterophylla / Rhododendron columbianum / Carex obnupta - Lysichiton americanus Treed Bog    | Western hemlock / western Labrador tea / slough sedge - skunk cabbage                | CEGL000477 | G1S1     | CR         |         | FE           | Christy 2004: 35; McCain and Christy 2005; Christy 2001a  |
| Tsuga heterophylla / Vaccinium alaskaense / Oxalis oregana forest                                  | western Hemlock / Alaska blueberry / redwood sorrel                                  | CEGL005587 | G4S3     | WC         | CA, WA  |              | Topik et al. 1986; Meidinger et al. 2005; McCain and Diaz 2002b; McCain and Diaz 2002a; Henderson et al. 1989; Henderson et al. 1986; Hemstrom et al. 1987; Hemstrom and Logan 1986; Fonda 1974; Diaz and Mellen 1996; Crawford et al. 2009; Chappell 2006b; Chappell 2001; Chappell 1997; Atzet and McCrimmon 1990   |
| Tsuga heterophylla / Vaccinium membranaceum / Linnaea borealis                                     | western hemlock / thin-leaved huckleberry / twinflower                               | CEGL000119 | G4S3     | WC         |         |              | Atzet and McCrimmon 1990: 113   |
| Tsuga heterophylla / Vaccinium membranaceum / Xerophyllum tenax                                    | western hemlock / thin-leaved huckleberry / beargrass                                | CEGL000120 | G4S4     | WC         | WA?     |              | Halverson et al. 1986: 93; Marsh et al. 1987: 56  |
| Tsuga heterophylla / Vaccinium ovatum  | western hemlock / evergreen huckleberry  | CEGL000121 | G3S3     | CR         | WA      |              | Hemstrom and Logan 1986: 81; McCain and Diaz 2002a  |
| Tsuga mertensiana - (Abies amabilis) / Vaccinium scoparium woodland                                | mountain hemlock - (Pacific silver fir) / grouse whortleberry woodland               | CEGL005582 | G4G5S4   | EC, WC     | CA?, WA |              | Volland 1985; Volland 1976; Schuller 1978; Meidinger et al. 2005; Lillybridge et al. 1995; Johnson and Simon 1987; Johnson and Clausnitzer 1992; Hopkins 1979b; Hemstrom et al. 1987; Hemstrom et al. 1982; Franklin 1966; Diaz et al. 1997; Crawford et al. 2009; Atzet and McCrimmon 1990   |
| Tsuga mertensiana - (Abies amabilis, Abies lasiocarpa) / Luzula glabrata var. hitchcockii woodland | mountain hemlock (Pacific silver fir, subalpine fir) / smooth woodrush               | CEGL007381 | G5S4     | EC, WC     | CA?, WA |              | Schuller 1978: 46; Hemstrom et al. 1987: 170; Cooper et al. 1991: 44; Diaz et al. 1997: 55; McCain and Diaz 2002b: 314  |
| Tsuga mertensiana - Abies amabilis / Rhododendron albiflorum forest                                | mountain hemlock - Pacific silver fir / Cascade azalea                               | CEGL002632 | G4G5S4   | EC, WC     | BC, WA  |              | Brockway et al. 1983: 70; Henderson et al. 1992: 158, 160; Diaz et al. 1997: 71   |
| Tsuga mertensiana - Abies amabilis / Vaccinium alaskaense / Rubus pedatus forest                   | mountain hemlock - Pacific silver fir / Alaska blueberry / strawberry-leaf raspberry | CEGL005580 | G4G5S4   | EC, WC     | BC, WA  |              | Meidinger et al. 2005; Henderson et al. 1992; Henderson et al. 1989; Henderson et al. 1986; Henderson et al. 1985; Henderson and Peter 1984; Henderson and Peter 1983; Henderson and Peter 1982; Henderson and Peter 1981; Henderson 1981; Green and Klinka 1994; Franklin et al. 1988; del Moral et al. 1976; Crawford et al. 2009; Banner et al. 1993   |
| Tsuga mertensiana - Abies amabilis / Vaccinium membranaceum / Xerophyllum tenax                    | mountain hemlock - Pacific silver fir / thin-leaved blueberry / beargrass            | CEGL000515 | G5S4     | WC         | WA      |              | Brockway et al. 1983: 68; Hemstrom et al. 1982: 63; Brockway et al. 1983; Hemstrom et al. 1987: 162; Henderson et al. 1992: 182; Diaz et al. 1997: 81   |

| Scientific Name  | Common Name  | ELCODE     | G/S Rank | Ecoregions | W S & P  | Wetland Type | References  |
|--|--|------------|----------|------------|--|--------------|---|
| <i>Tsuga mertensiana</i> - <i>Abies lasiocarpa</i> / <i>Eucephalus ledophyllus</i> - <i>Lupinus arcticus</i> ssp. <i>subalpinus</i> woodland | mountain hemlock - subalpine fir / Cascades aster      | CEGL007372 | G4S2     | EC, WC     | WA   |              | Diaz et al. 1997: 39; Meidinger et al. 2005; McCain and Diaz 2002b; Crawford et al. 2009  |
| <i>Tsuga mertensiana</i> / <i>Calamagrostis rubescens</i>  | mountain hemlock / pinegrass                           | CEGL000122 | G3S3     | BM         | WA   |              | Kovalchik 2001  |
| <i>Tsuga mertensiana</i> / <i>Chimaphila umbellata</i>   | mountain hemlock / prince's-pine                       | CEGL000502 | G4S4     | EC, KM, WC | CA?  |              | Atzet and McCrimmon 1990: 43  |
| <i>Tsuga mertensiana</i> / <i>Menziesii ferruginea</i>   | mountain hemlock / fool's huckleberry                  | CEGL000506 | G4S3     | EC, WC     | ID, MT, WA                                       |              | Brockway et al. 1983: 69; Franklin et al. 1979; Hemstrom et al. 1982; Brockway et al. 1983; Cooper et al. 1991: 40; Diaz et al. 1997: 59; Pfister et al. 1977; Daubenmire and Daubenmire 1968; Cooper et al. 1987; Brockway and Topik 1984  |
| <i>Tsuga mertensiana</i> / <i>Phyllodoce empetriformis</i> - <i>Vaccinium deliciosum</i> woodland  | mountain hemlock / red heather - delicious huckleberry | CEGL005579 | G4S3     | EC, WC     | BC, WA   |              | Henderson et al. 1992: 156; Diaz et al. 1997: 63; Titus et al. 1998; Sawyer et al. 2009; Meidinger et al. 2005; Lillybridge et al. 1995; Kovalchik 2001; Henderson et al. 1989; Henderson et al. 1986; Henderson et al. 1985; Henderson and Peter 1983; Green and Klinka 1994; Douglas 1971; del Moral et al. 1976; Crawford et al. 2009; Chappell 2006a; Banner et al. 1993  |
| <i>Tsuga mertensiana</i> / <i>Polygonum davisiae</i> woodland  | mountain hemlock / Davis' Knotweed woodland            | CEGL007294 | G4S3     | EC, WC     | WA   |              | Diaz et al. 1997: 51; Meidinger et al. 2005   |
| <i>Tsuga mertensiana</i> / <i>Quercus sadleriana</i> / <i>Orthilia secunda</i>   | mountain hemlock / Sadler oak / wintergreen            | CEGL000123 | G3G4S4   | KM         | CA?  |              | Atzet and Wheeler 1984; Sawyer et al. 2009  |
| <i>Tsuga mertensiana</i> / <i>Rhododendron macrophyllum</i>  | mountain hemlock / western rhododendron                | CEGL000124 | G4S4     | WC         |  |              | Hemstrom et al. 1987: 174; Atzet and McCrimmon 1990: 51; Diaz et al. 1997: 77   |
| <i>Tsuga mertensiana</i> / sparse understory forest  | mountain hemlock / sparse understory forest            | CEGL008685 | G3G4S3   | EC, WC     | CA   |              | Potter 1998; Keeler-Wolf et al. 2012; Keeler-Wolf 2002; Sawyer et al. 2009; Atzet et al. 1996   |
| <i>Typha</i> ( <i>latifolia</i> , <i>angustifolia</i> )  | western cattail marsh                                  | CEGL002010 | G5S5     | ALL        | AB, AZ, BC, CA, CO, ID, MT, NM, NV, UT, WA, WY + | FM           | Kunze 1994: 59, 97; Rodwell 1995b: 185; Youngblood et al. 1985a; Von Loh et al. 2002; Von Loh 2000; Tolstead 1942; Titus et al. 1999; Titus et al. 1998; Titus et al. 1996; Stumpf et al. 2017; Stevens et al. 2015; Stevens et al. 2007; Sproul et al. 2011; Sawyer et al. 2009; Sanville et al. 1986; Salas et al. 2010b; Salas et al. 2009; Romme et al. 1993; Rolfsmeier and Steinauer 2010; Rice et al. 2012c; Reid et al. 2004; Ramaley 1939b; Ramaley 1939a; Padgett et al. 1989; Murray 2000; Muldavin et al. 2012b; Muldavin et al. 2000a; Muldavin et al. 1993b; McEachern 1979; McCain and Christy 2005; Masek 1979; Marriott and Faber-Langendoen 2000; Lindauer and Christy 1972; Lindauer 1978; Kovalchik 2001; Kovalchik 1993; Kittel et al. 1999b; Kittel et al. 1999a; Kittel et al. 1996; Kagan et al. 2012; Jones and Walford 1995; Jones 1992b; Johnston 1987; Jankovsky-Jones et al. 2001; Hop et al. 2007; Holland 1986b; Hansen et al. 1995; Hansen et al. 1991; Evens et al. 2014; Erixson and Cogan 2012c; Dorn 1992; Dethier 1990; Crowe et al. 2004; Crowe and Clausnitzer 1997; Crawford 2003; Copass and Ramm-Granberg 2016a; Clark et al. 2009; Christy 2004; Christy 1973; Carsey et al. 2003a; Bunin 1985; Bundy et al. 1996; Buck-Diaz et al. 2012; Boss 1983; Baker 1984a |
| <i>Utricularia macrorhiza</i> aquatic vegetation   | common bladderwort bed                                 | CEGL003310 | G5S3     | CR, WC, WV | AK?, BC?, CA?, CO, WA                            | AB           | Titus and Christy 1996a; Christy 2001a: 38; Christy 2004: 150   |
| <i>Utricularia macrorhiza</i> Aquatic Vegetation [Provisional]   | Common bladderwort                                     | OR1173     | G5S3     | CR, WC, WV |  | AB           | Christy 2004: 150   |

| Scientific Name  | Common Name   | ELCODE     | G/S Rank | Ecoregions | W S & P        | Wetland Type | References  |
|--|---|------------|----------|------------|----------------|--------------|---|
| <i>Vaccinium caespitosum</i> / <i>Sanguisorba officinalis</i> fen                        | dwarf bilberry / (beargrass) - great burnet fen       | CEGL003438 | G1S1     | CR         | WA             | FE           | Christy 2004: 61, 62; McCain and Christy 2005   |
| <i>Vaccinium deliciosum</i> parkland   | delicious blueberry parkland                          | CEGL001427 | G4G5S2   | WC         | WA             |              | Wooten and Morrison 1995; Schreiner 1994; Henderson 1974; Henderson 1973; Hamann 1972; Douglas 1972; Crawford et al. 2009   |
| <i>Vaccinium ovalifolium</i> Riparian Shrubland [Provisional]                            | Early blueberry                                       | OR1174     | G4S3     | WC         |                | SS           | Murray 2000: 39; McCain 2004: 110   |
| <i>Vaccinium uliginosum</i> / <i>Deschampsia cespitosa</i>                               | bog blueberry / tufted hairgrass shrub swamp          | CEGL001250 | G2S2     | EC, WC     | CA?, WA        | SS           | Hemstrom et al. 1987: 247; Titus and Christy 1996a; Martin and Frenkel 1978: 18, 48; Christy et al. 1998: 86; Christy 2001a: 31; Christy 2004: 64   |
| <i>Vaccinium uliginosum</i> / <i>Carex aquatilis</i> var. <i>dives</i>                   | bog blueberry / Sitka sedge shrub swamp               | CEGL001249 | G4S4     | CR         | CA?            | SS           | Roach 1952: 184; Seyer 1979: 41, 42; Frenkel et al. 1986: 33; Wilson 1986: 21; Kovalchik 1987: 86, 88; Christy 2004: 65; Murray 2000: 39; Crowe et al. 2004: 262; McCain et al. 2014: 125 |
| <i>Vaccinium uliginosum</i> / <i>Carex obnupta</i> Wet Shrubland [Provisional]           | Bog bilberry / slough sedge                           | OR1175     | G3S3     | CR         |                | FE           | Christy 2004: 63  |
| <i>Vaccinium uliginosum</i> / <i>Eleocharis quinqueflora</i> Wet Shrubland [Provisional] | bog blueberry / few-flowered spikerush shrub swamp    | OR0031     | G4S2     | EC, WC     | WA?            | FE           | Seyer 1979: 42; Kovalchik 1987: 88; Crowe et al. 2004: 259  |
| <i>Valeriana sitchensis</i> - <i>Veratrum viride</i> meadow                              | Sitka valerian - green false hellebore meadow         | CEGL001998 | G4S4     | BM         | AB, BC, MT, WA | WM           | Reid et al. 2004; Hop et al. 2007; Hamann 1972; Franklin and Dyrness 1973; Douglas and Bliss 1977; Damm 2001; Crawford et al. 2009  |
| <i>Veratrum californicum</i>   | mesic herb rich montane meadow                        | CEGL001946 | G3S3     | BR, EC, BM | CA, NV, UT     | WM           | Ganskopp 1979: 37; Padgett et al. 1989: 114; Titus et al. 1998; Murray 2000: 39; Crowe et al. 2004: 164; Wells 2006: 158; McCain et al. 2014: 57  |
| <i>Veronica americana</i> [Provisional]  | American speedwell marsh                              | OR1012     | G3S3     | BM, EC, WV | ID?, WA        | AB           | Crowe and Clausnitzer 1997: 213; Titus et al. 1998; Crowe et al. 2004: 63   |
| <i>Wolffia</i> ( <i>borealis</i> , <i>columbiana</i> )                                   | (northern watermeal, Columbian watermeal) aquatic bed | CEGL003311 | G4S3     | KM, WV     | WA             | AB           | Titus et al. 1996   |
| <i>Xerophyllum tenax</i> - <i>Sanguisorba officinalis</i> meadow                         | common beargrass - great burnet meadow                | CEGL003439 | G1S1     | CR, KM     |                | FE           | Christy 2001b; Christy 2004: 62   |
| <i>Xerophyllum tenax</i> / <i>Sphagnum</i> spp. Meadow                                   | Bear-grass / sphagnum                                 | OR1011     | G3S2     | CR, WC     | WA?            | FE           | Murray 2000: 29   |
| <i>Zostera marina</i>  | eelgrass bed  | CEGL005626 | G5S3     | CR         | CA, WA         | SM           | Eilers 1975a: 220; Thomas 1980: 2; Dethier 1990; Viereck et al. 1992: 211   |

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