# Appendix A – Land Category Definitions for the Land-based Net Carbon Inventory with Oregon-specific Ecosystem or Working Lands Information

| Land category | NLCD classification definitions as adopted in the Inventory  | Additional Oregon-specific Ecosystem or Working Lands Information  |
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| Forest        | Deciduous forest - areas dominated by trees generally greater than 5 meters tall, and greater than 20% of total vegetation cover. More than 75% of the tree species shed foliage simultaneously in response to seasonal change.  Evergreen Forest - areas dominated by trees generally greater than 5 meters tall, and greater than 20% of total vegetation cover. More than 75% of the tree species maintain their leaves all year. Canopy is never without green foliage.  Mixed Forest - areas dominated by trees generally greater than 5 meters tall, and greater than 20% of total vegetation cover. Neither deciduous nor evergreen species are greater than 75% of total tree cover. | While the NLCD classes are used to determine total forest area in Oregon, total forest area is stratified by the US Forest Service's Forest Group Types relevant to Oregon to estimate emissions and removals. They are listed to the right.  The following US Forest Service Forest Group Types relevant to Oregon are included in the Inventory:  • Alder/maple • Aspen/birch • Douglas-fir • Elm/Ash/Cottonwood • Fir/spruce/mountain hemlock • Hemlock/Sitka spruce • Lodgepole pine • Mixed Conifer Group (CA) • Other Western Hardwoods • Other western softwoods • Pinyon/juniper • Ponderosa pine • Tanoak/laurel • Unknown forest type group • Western Larch • Western white pine • Oak / hickory group  The following oak habitats in Oregon are accounted for in the forest land category: • Oak Woodland Open habitats are characterized by a relatively open canopy (25-50% cover) with approximately 5-10 large trees or 10-20 younger trees per acre • Oak Woodland Closed habitats are characterized by a relatively closed canopy (50-75% cover) with |

## approximately 10-30 large trees or 20-40 younger trees per acre

 Oak Forest habitats are characterized by a nearly closed canopy (greater than 75% cover) with typically >30 large trees or >40 younger trees per acre.

Oak habitat definitions from Land Manager's Guide to Bird Habitat and Populations in Oak Ecosystems of the PNW (Part 1).

#### Cropland

Pasture/Hay - areas of grasses, legumes, or grass-legume mixtures planted for livestock grazing or the production of seed or hay crops, typically on a perennial cycle. Pasture/hay vegetation accounts for greater than 20% of total vegetation.

**Cultivated Crops** - areas used for the production of annual crops, such as corn, soybeans, vegetables, tobacco, and cotton, and also perennial woody crops such as orchards and vineyards. Crop vegetation accounts for greater than 20% of total vegetation. This class also includes all land being actively tilled.

The following Oregon crops are included in the Inventory under the **cultivated crops** NLCD definition in the left column:

- Alfalfa
- Apples
- Barley
- Beans
- Blackberries
- Blueberries
- Broccoli
- Carrots
- Cauliflower
- Cherries
- Corn
- Cranberries
- Cucumbers
- Garlic
- Grapes
- Hay
- Hazelnuts
- Hops
- Mint
- Oats
- Onions
- Peaches
- Pears
- Peas
- Plums
- Potatoes
- Pumpkins
- Raspberries
- Rye
- Squash
- Strawberries

#### Sugar beets

- Watermelon
- Wheat

#### Grassland

Shrub/Scrub - areas dominated by shrubs; less than 5 meters tall with shrub canopy typically greater than 20% of total vegetation. This class includes true shrubs, young trees in an early successional stage or trees stunted from environmental conditions.

Grassland/Herbaceous - areas dominated by graminoid or herbaceous vegetation, generally greater than 80% of total vegetation. These areas are not subject to intensive management such as tilling, but can be utilized for grazing.

The following oak habitat is accounted for in the **grassland/herbaceous** NLCD definition. This means that the carbon stored in individual oaks in this land class are likely not accounted for in the Inventory.

 Oak Savannah habitats are grasslands with scattered oak trees and an open canopy (<25% cover) with approximately 1-5 large trees or 1-10 younger trees per acre

Oak habitat definitions from Land Manager's Guide to Bird Habitat and Populations in Oak Ecosystems of the PNW (Part 1).

The following sagebrush habitat is accounted for in **shrub/scrub** NLCD definition:

- Sagebrush steppe is dominated by grasses and forbs (more than 25 percent of the area) with an open shrub layer.
- Sagebrush shrublands are dominated by shrubs, with less area covered by grasses and forbs than in steppe habitats

Sagebrush habitat definitions from the <u>Oregon</u> <u>Conservation Strategy.</u>

#### Wetlands

Woody Wetlands - areas where forest or shrubland vegetation accounts for greater than 20% of vegetative cover and the soil or substrate is periodically saturated with or covered with water.

Emergent Herbaceous Wetlands - areas where perennial herbaceous vegetation accounts for greater than 80% of vegetative cover and the soil or substrate is periodically saturated with or covered with water.

The following wetland types are accounted for in the **woody wetlands** NLCD definition:

- Forested tidal wetlands
- Tidal shrub-scrub wetlands
- Forested freshwater wetlands
- Freshwater shrub-scrub wetlands

The following wetland types are accounted for in the **emergent herbaceous wetlands** NLCD definition:

- Tidal emergent wetlands
- Emergent freshwater wetlands

|                    | Open Water - areas of open water, generally with less than 25% cover of vegetation or soil  [Coastal wetland classes from C-CAP have been used to further stratify each of the above definitions by vegetation type and salinity. They are not shown here. See Appendix E.   |  |
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| Develope<br>d land | Developed, Open Space - areas with a mixture of some constructed materials, but mostly vegetation in the form of lawn grasses. Impervious surfaces account for less than 20% of total cover. These areas most commonly include large-lot single-family housing units, parks, golf courses, and vegetation planted in developed settings for recreation, erosion control, or aesthetic purposes.  Developed, Low Intensity - areas with a mixture of constructed materials and vegetation. Impervious surfaces account for 20% to 49% percent of total cover. These areas most commonly include single-family housing units.  Developed, Medium Intensity - areas with a mixture of constructed materials and vegetation. Impervious surfaces account for 50% to 79% of the total cover. These areas most commonly include single-family housing units.  Developed High Intensity - highly developed areas where people reside or work in high numbers. Examples include apartment complexes, row houses and commercial/industrial. Impervious surfaces account for 80% to 100% of the total cover. |  |
| Other<br>Land      | Barren Land (Rock/Sand/Clay) - areas of bedrock, desert pavement, scarps, talus, slides, volcanic material, glacial debris, sand dunes, strip mines, gravel pits and other accumulations of earthen material.  |  |

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| Generally, vegetation accounts for less than 15% of total cover.  Perennial Ice/Snow- areas characterized by a perennial cover of ice and/or snow, generally greater than 25% of total cover. |  |
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