

Appendix 4. Plant community types in the potential Rochelle Hills Research Natural Area. The communities are listed by common name within physiognomic units from The Nature Conservancy's vegetation classification system (The Nature Conservancy 1997). Following the common name for a community, the scientific names are given for the equivalent plant association of Johnston (1987), vegetation type of Thilenius et al. (1995), and vegetation type from The Nature Conservancy's classification (The Nature Conservancy 1997).

## II. Woodland

### A. Evergreen woodland

#### 4. Temperate or subpolar, needle-leaved, evergreen woodland

##### a. Rounded crown, temperate, needle-leaved, evergreen woodland

- Ponderosa pine/Bluebunch wheatgrass association
- Johnston: Pinus ponderosa/Roegneria spicata plant association
- Thilenius: Pinus ponderosa/Agropyron spicatum coniferous forest or Schizachyrium scoparium bunchgrass steppe with sparse tree layer
- TNC: Pinus ponderosa/Pseudoroegneria spicata woodland
  
- Ponderosa pine-Rocky Mountain juniper/Bluebunch wheatgrass association
- Johnston: Pinus ponderosa-Juniperus scopulorum/Roegneria spicata plant association
- Thilenius: Pinus ponderosa-Juniperus scopulorum coniferous forest
- TNC: Pinus ponderosa/Juniperus scopulorum woodland

## III. Shrubland (>25% canopy cover by shrubs $\geq 0.5$ m tall)

### B. Deciduous shrubland

#### 2. Drought-deciduous shrubland

- Four-wing saltbush barrens
- Johnston: Artemisia tridentata/Elytrigia smithii plant association?
- Thilenius: Atriplex canescens shrub
- TNC: Atriplex canescens shrubland?

V. Herbaceous vegetation (Woody plant cover <25%)

A. Perennial Graminoid

5. Temperate or Subpolar Grassland without a tree or shrub layer (tree or shrub cover <10%)

- Little bluestem/Sideoats grama association
- Johnston: Schizachyrium scoparium/Bouteloua curtipendula plant association?
- Thilenius: Schizachyrium scoparium bunchgrass steppe and Pinus ponderosa/Agropyron spicatum coniferous forest
- TNC: Schizachyrium scoparium-Bouteloua spp. herbaceous vegetation
  
- Western wheatgrass/Green needlegrass association
- Johnston: Elytrigia smithii/Stipa viridula plant association
- Thilenius: Artemisia tridentata/Agropyron smithii shrub-steppe?
- TNC: Pascopyrum smithii-Nassella viridula herbaceous vegetation
  
- Bluebunch wheatgrass/Sandberg bluegrass association
- Johnston: Roegneria spicata/Poa secunda plant association
- Thilenius: 1, Agropyron spicatum preliminary type; 3, E slope, burned?; 5, S-f scoria talus, maybe opening in Pinpon woodland?;
- TNC: Pseudoroegneria spicata-Poa secunda herbaceous vegetation
  
- Needle-and-thread/Blue grama association
- Johnston: Stipa comata/Bouteloua gracilis plant association?
- Thilenius: Stipa comata-Bouteloua gracilis sodgrass steppe?
- TNC: Stipa comata-Bouteloua gracilis herbaceous vegetation
  
- Blue grama/Western wheatgrass association
- Johnston: Bouteloua gracilis/Elytrigia smithii plant association
- Thilenius: Artemisia tridentata/Bouteloua gracilis-Agropyron smithii shrub-steppe
- TNC: Pascopyrum smithii-Bouteloua gracilis-Carex filifolia herbaceous vegetation
  

7. Temperate or Subpolar Grassland with a shrub layer (10%-25% canopy cover by shrubs  $\geq 0.5$ m tall)

- Prairie sandreed-Western wheatgrass herbaceous vegetation
- Johnston: Calamovilfa longifolia/Stipa comata plant association, phase 1 ?
- Thilenius: Calamovilfa longifolia-Stipa comata preliminary type
- TNC: Calamovilfa longifolia-Pascopyrum smithii herbaceous vegetation

- Basin silver sagebrush/western wheatgrass association
- Johnston: Artemisia cana/Elytrigia smithii plant association
- Thilenius: Artemisia cana/Agropyron smithii preliminary type
- TNC: Artemisia cana ssp. cana/Pascopyrum smithii sparse shrubland