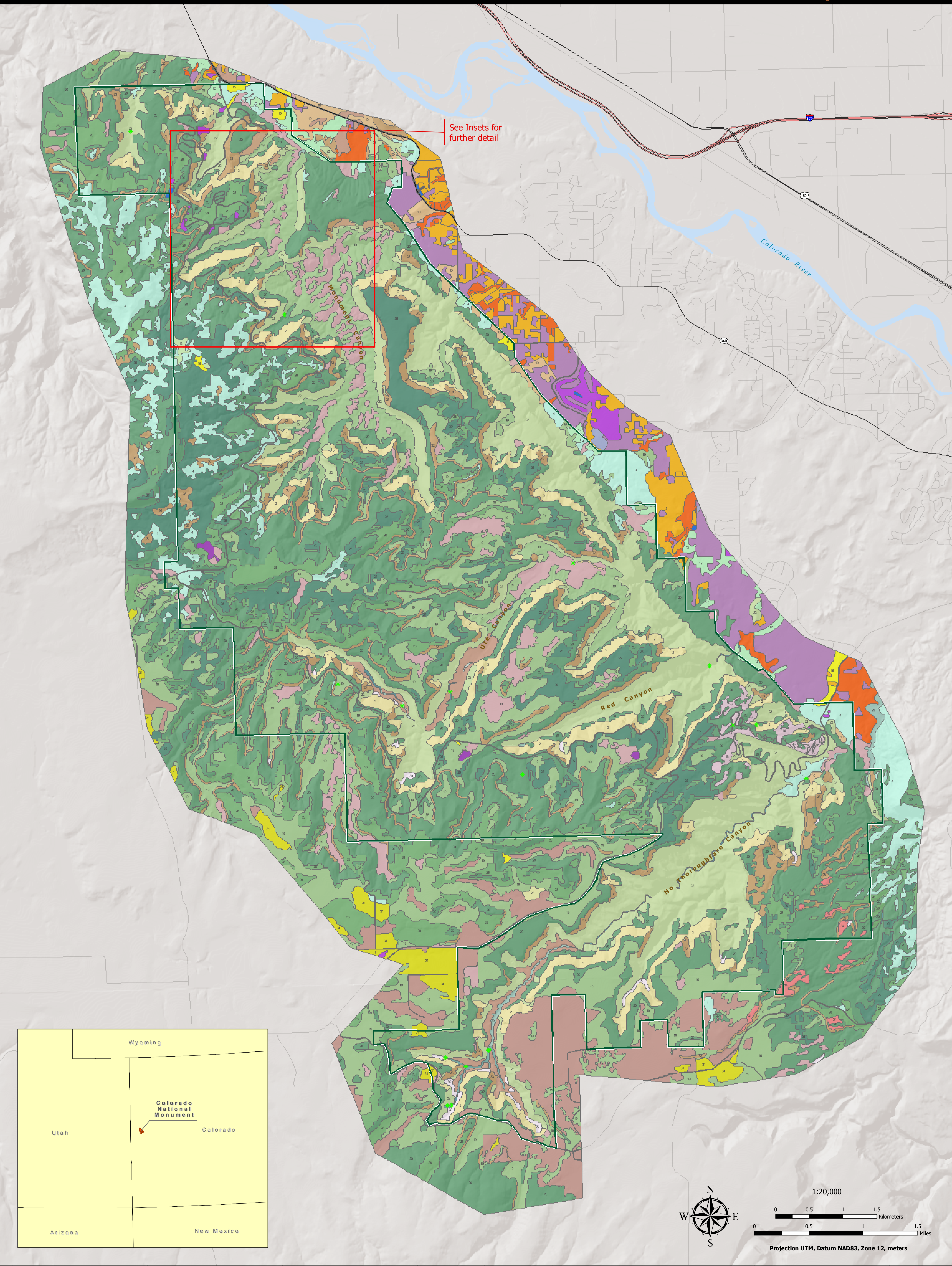


Vegetation Mapping Project

Colorado National Monument

U.S. Department of the Interior
National Park Service
U.S. Geological Survey
Assisted by e²M and NatureServe



Vegetation Map Classes

- 1 Seep and Spring Vegetation
- 18 Baltic Rush Herbaceous Vegetation
- 29 Cottonwood / Coyote Willow Woodland
- 14 Quaking Aspen - Water Birch Forest-Shrubland
- 37 Coyote Willow / Mesic Graminoids Shrubland
- 4 Black Sagebrush and Grasses Shrubland-Graminoids
- 12 Shadscale - Black Greasewood Shrubland
- 13 Gardner's Saltbush / James' Galleta Dwarf-shrubland
- 23 Winterfat / James' Galleta Dwarf-shrubland
- 2 Utah Serviceberry Shrubland
- 17 Rubber Rabbitbrush Desert Wash Shrubland
- 3 Greenleaf Manzanita Shrubland
- 10 Fourwing Saltbush Shrubland
- 9 Fourwing Saltbush - Mormon Tea Talus Shrubland
- 5 Basin Big Sagebrush / Cheatgrass Semi-natural Shrubland
- 7 Wyoming Big Sagebrush / Seeded Grasses Semi-natural Shrubland
- 8 Wyoming Big Sagebrush Shrubland
- 16 Littleleaf Mountain Mahogany / Slickrock Sparse Vegetation
- 30 Gambel Oak / Skunkbush Woodland
- 22 Utah Juniper / Talus Mixed Shrub Woodland
- 19 Two-Needle Pinyon Pine - Utah Juniper / Wyoming Big Sagebrush Woodland
- 28 Two-Needle Pinyon Pine - Utah Juniper / Sparse Understory Woodland
- 20 Two-Needle Pinyon Pine - Utah Juniper / Multiple Shrub Woodland
- 25 Two-Needle Pinyon Pine - Utah Juniper / Black Sagebrush Woodland
- 15 Cheatgrass Semi-natural Herbaceous Vegetation
- 31 Crested Wheatgrass Semi-natural Herbaceous
- 34 Nonvascular Cover - 'Board Beds' Unit, Entrada Sandstone
- 44 Serpent's Trail

Land Use Classes

- Bare Rock/Sand
- Herbaceous
- Transitional
- Open Water
- Residential
- Non-residential Developed
- Quarries/Strip mines/Gravel pits
- Woody
- Colorado National Monument Boundary
- Vegetation Project Boundary
- Fuels Points
- Plot Points
- Observation Points
- Accuracy Assessment Points

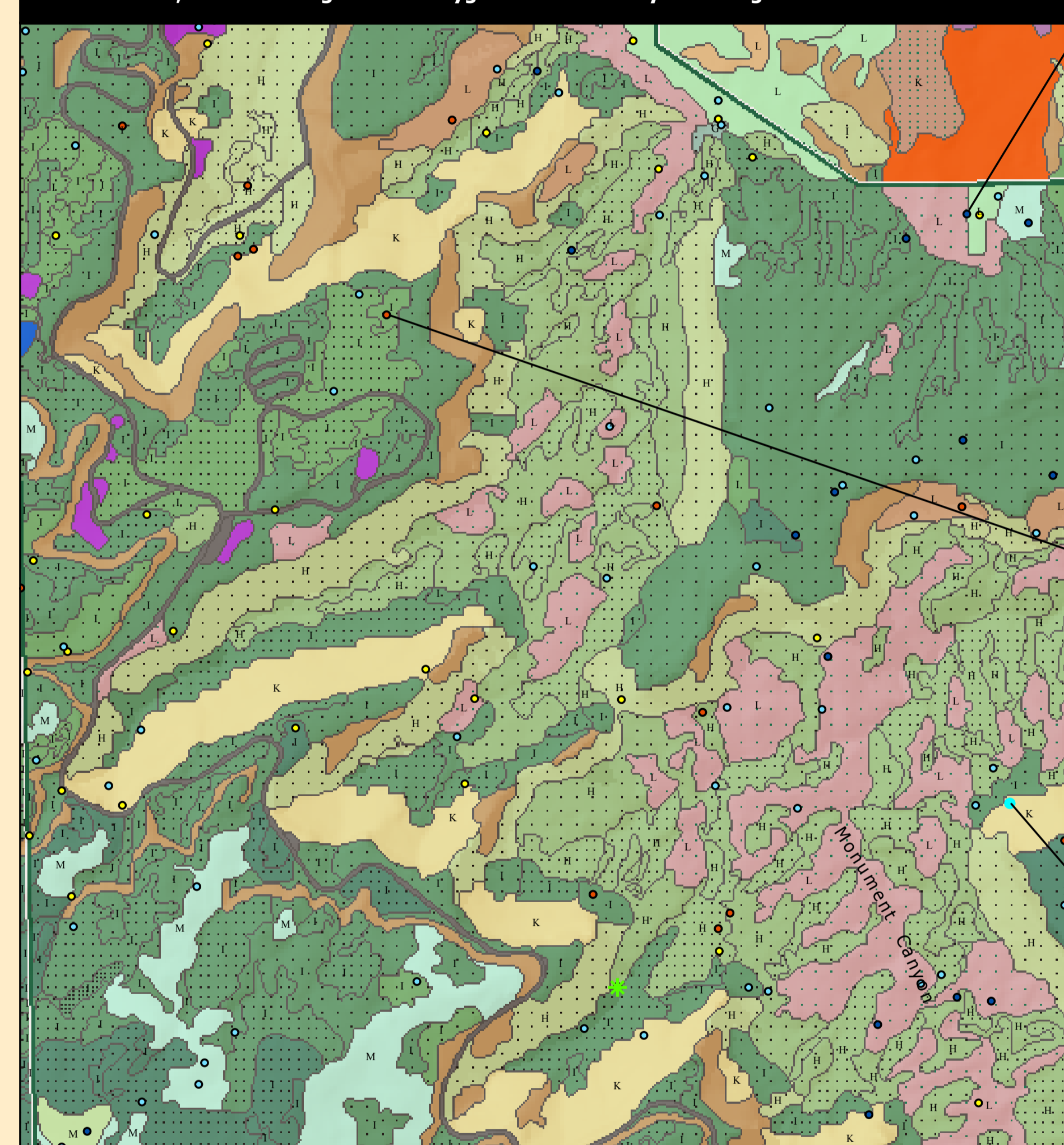
Density Classes

- Closed Tree Canopy/Continuous (>60% coverage)
- Open Tree Canopy/Discontinuous (25-60% coverage)
- Dispersed - Sparse Tree Canopy (10-25% coverage)
- Dense Sagebrush Canopy (>40% coverage)
- Light Sagebrush Canopy (<10-40% coverage)
- N/A

Height Classes

- G = 15 - 30 meters
- H = 5 - 15 meters
- I = 1 - 5 meters
- K = 1 - 5 meters
- L = 0.5 - 1 meter
- M = 0 - 0.5 meter

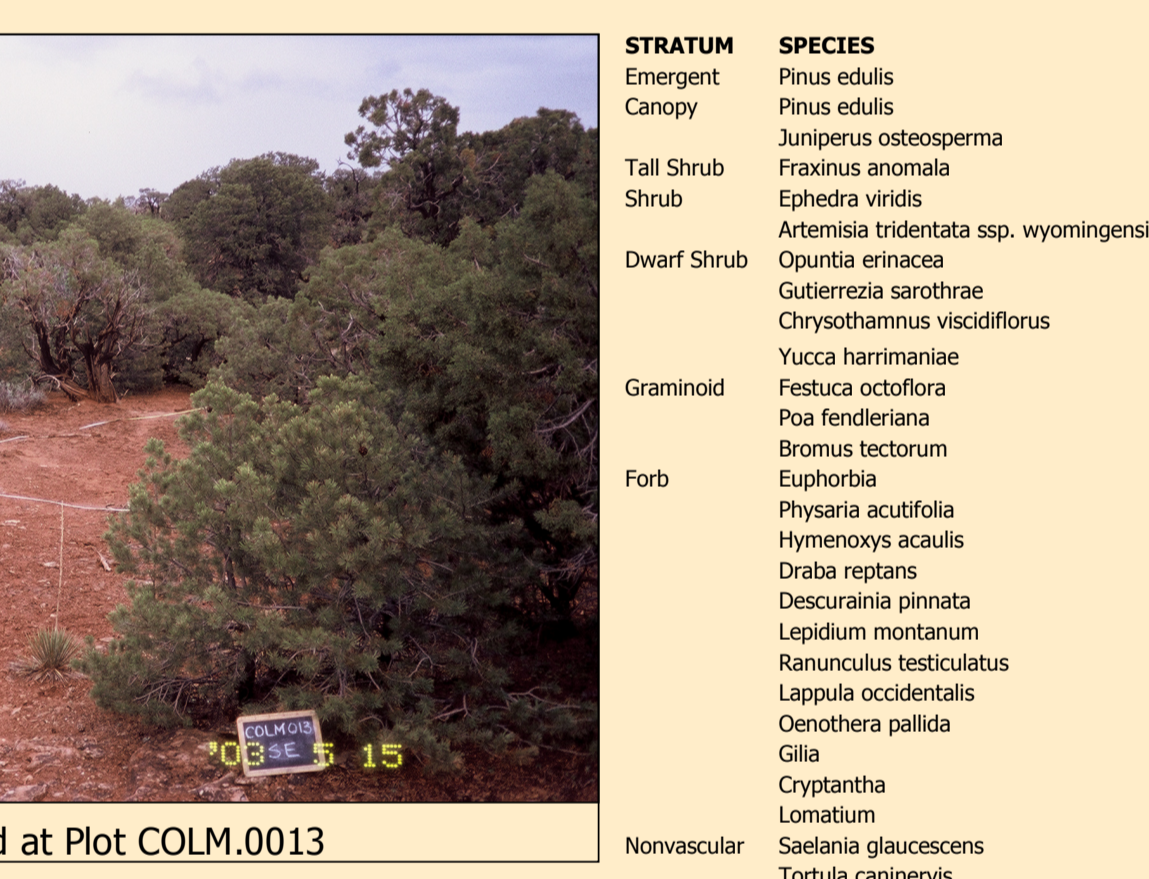
Inset 1: 1:12,000 scale Vegetation Polygons with Density and Height classes



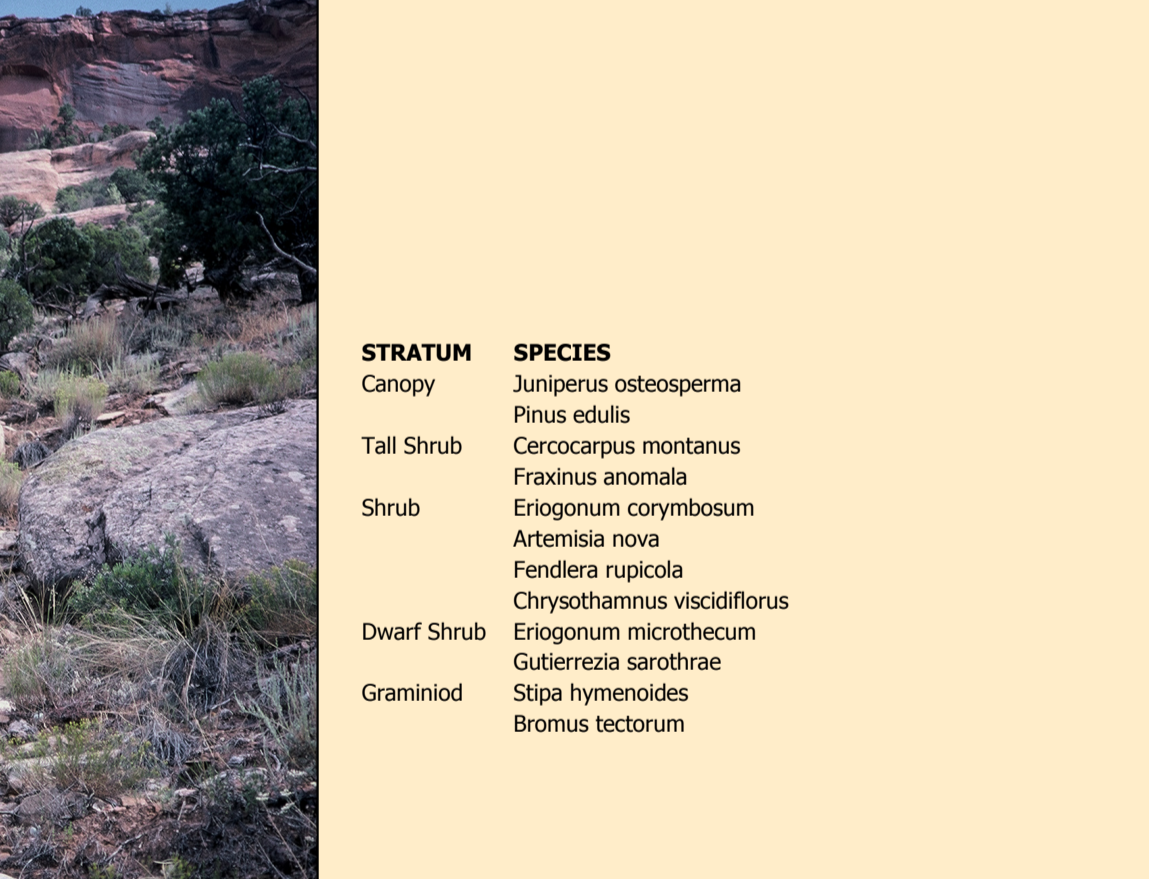
STRATUM	SPECIES
Shrub	<i>Artemisia tridentata</i> ssp. <i>tridentata</i>
	<i>Chrysothamnus nauseosus</i>
	<i>Sarcobatus vermiculatus</i>
	<i>Rhus artemesia</i>
Dwarf Shrub	<i>Artemisia confertifolia</i>
	<i>Artemisia tridentata</i>
	<i>Chrysothamnus viscidiflorus</i>
	<i>Gutierrezia serotina</i>
Graminoid	<i>Sporobolus arvensis</i>
	<i>Phragmites australis</i>
	<i>Juniperus arbuscula</i>
	<i>Bromus tectorum</i>
	<i>Elymus arvensis</i>
	<i>Stipa hymenoides</i>
	<i>Poa fendleriana</i>
	<i>Trisetum spodiopogon</i>
	<i>Glycyphyma spodiopogon</i>
Forb	<i>Comandra umbellata</i> var. <i>parvifolia</i>
	<i>Lappula occidentalis</i>
	<i>Lepidium montanum</i>
	<i>Trigonotis daltii</i>
Nonvascular	



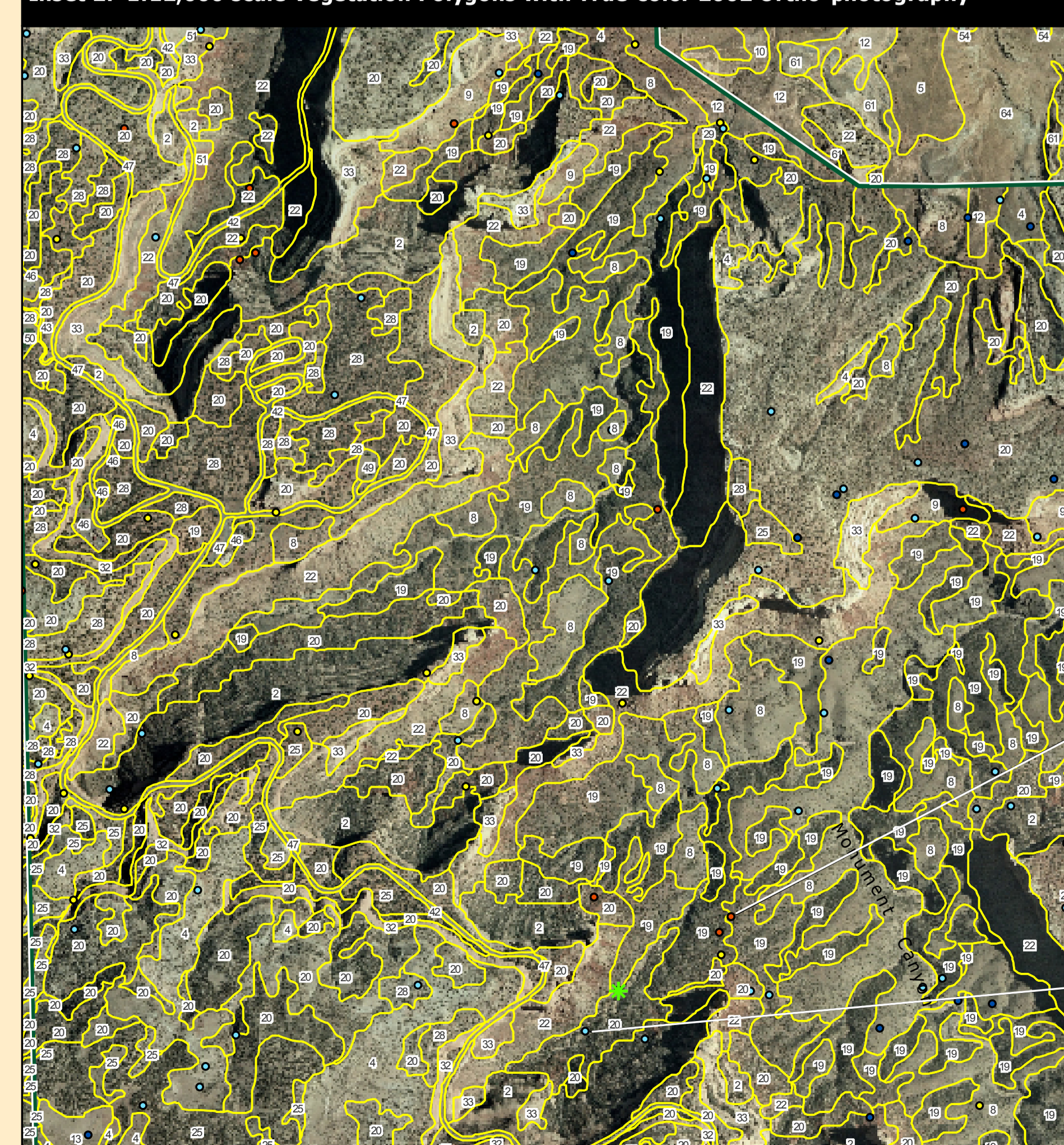
STRATUM	SPECIES
Emergent Canopy	<i>Pinus edulis</i>
	<i>Pinus ponderosa</i>
Tall Shrub	<i>Juniperus osteosperma</i>
	<i>Fraxinus artemesia</i>
	<i>Ephedra viridis</i>
Dwarf Shrub	<i>Artemisia tridentata</i> ssp. <i>wyomingensis</i>
	<i>Opuntia erinacea</i>
	<i>Gutierrezia serotina</i>
	<i>Chrysothamnus viscidiflorus</i>
Graminoid	<i>Festuca homoneura</i>
	<i>Festuca occifera</i>
Forb	<i>Poa fendleriana</i>
	<i>Bromus tectorum</i>
	<i>Elymus arvensis</i>
	<i>Phragmites australis</i>
	<i>Hymenocallis acutis</i>
	<i>Dalmanella acutis</i>
	<i>Descurainia pinnata</i>
	<i>Lepidium montanum</i>
	<i>Ranunculus testiculatus</i>
	<i>Lappula occidentalis</i>
	<i>Oenothera pallida</i>
	<i>Gilia</i>
	<i>Cryptantha</i>
Nonvascular	<i>Laminaria</i>
	<i>Salsola glauca</i>
	<i>Tetradlea californica</i>
	<i>Elymus trisetus</i>



STRATUM	SPECIES
Canopy	<i>Juniperus osteosperma</i>
	<i>Pinus edulis</i>
Tall Shrub	<i>Cercocarpus montanus</i>
	<i>Fraxinus artemesia</i>
Shrub	<i>Eriogonum corymbosum</i>
	<i>Artemisia tridentata</i>
	<i>Ferula ruscifolia</i>
Dwarf Shrub	<i>Chrysothamnus viscidiflorus</i>
	<i>Pinus edulis</i>
Graminoid	<i>Eriogonum microbotryum</i>
	<i>Gutierrezia serotina</i>
	<i>Bromus tectorum</i>



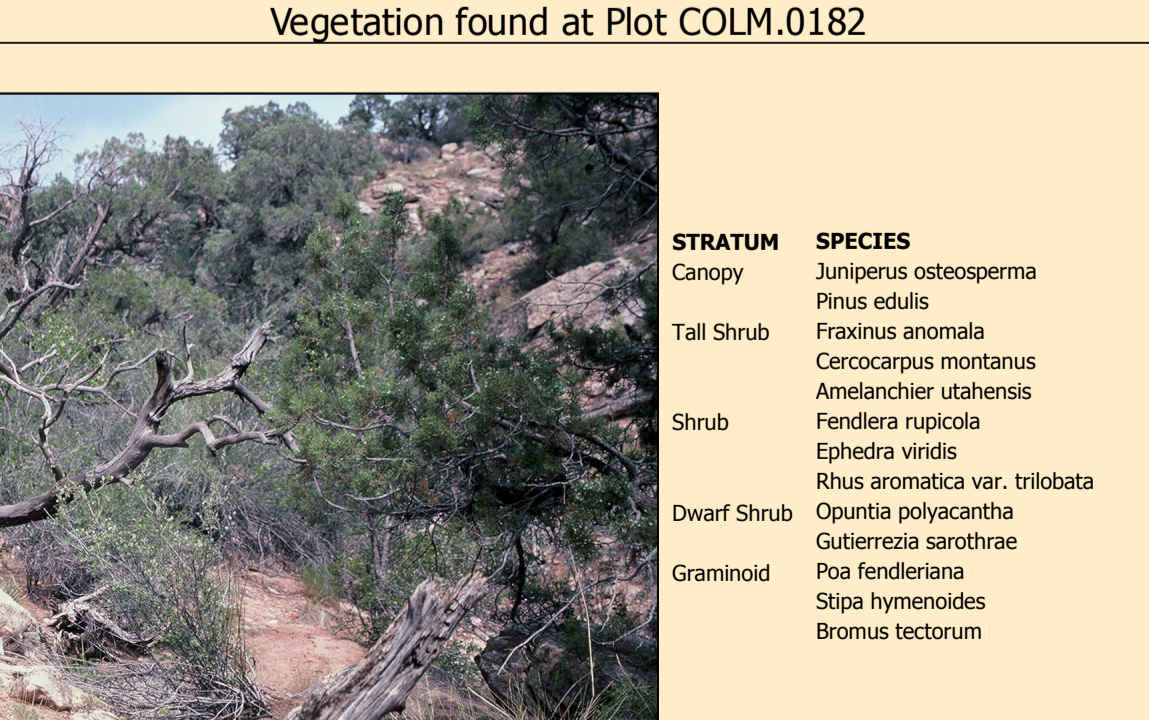
Inset 2: 1:12,000 scale Vegetation Polygons with True-color 2002 Ortho-photography



STRATUM	SPECIES
Canopy	<i>Juniperus osteosperma</i>
Shrub	<i>Artemisia tridentata</i> ssp. <i>wyomingensis</i>
Dwarf Shrub	<i>Gutierrezia serotina</i>
	<i>Opuntia polyacantha</i>
	<i>Opuntia artemesia</i>
Graminoid	<i>Stipa hymenoides</i>
	<i>Stipa artemesia</i>
	<i>Bromus tectorum</i>
	<i>Phragmites australis</i>
	<i>Elymus arvensis</i>
	<i>Phragmites australis</i>
	<i>Lepidium montanum</i>
	<i>Laminaria</i>
	<i>Artemisia tridentata</i>
	<i>Chrysothamnus viscidiflorus</i>
	<i>Phytolacca</i>
Seeding Nonvascular	<i>Descurainia pinnata</i>
	<i>Juniperus osteosperma</i>



STRATUM	SPECIES
Canopy	<i>Juniperus osteosperma</i>
	<i>Pinus edulis</i>
Tall Shrub	<i>Fraxinus artemesia</i>
	<i>Cercocarpus montanus</i>
Shrub	<i>Artemisia tridentata</i>
	<i>Ephedra viridis</i>
	<i>Rhus artemesia</i> var. <i>tridentata</i>
Dwarf Shrub	<i>Opuntia polyacantha</i>
	<i>Gutierrezia serotina</i>
Graminoid	<i>Poa fendleriana</i>
	<i>Stipa hymenoides</i>
	<i>Bromus tectorum</i>



1:20,000
0 0.5 1 1.5 Kilometers
0 0.5 1 1.5 Miles
Projection UTM, Datum NAD83, Zone 12, meters

