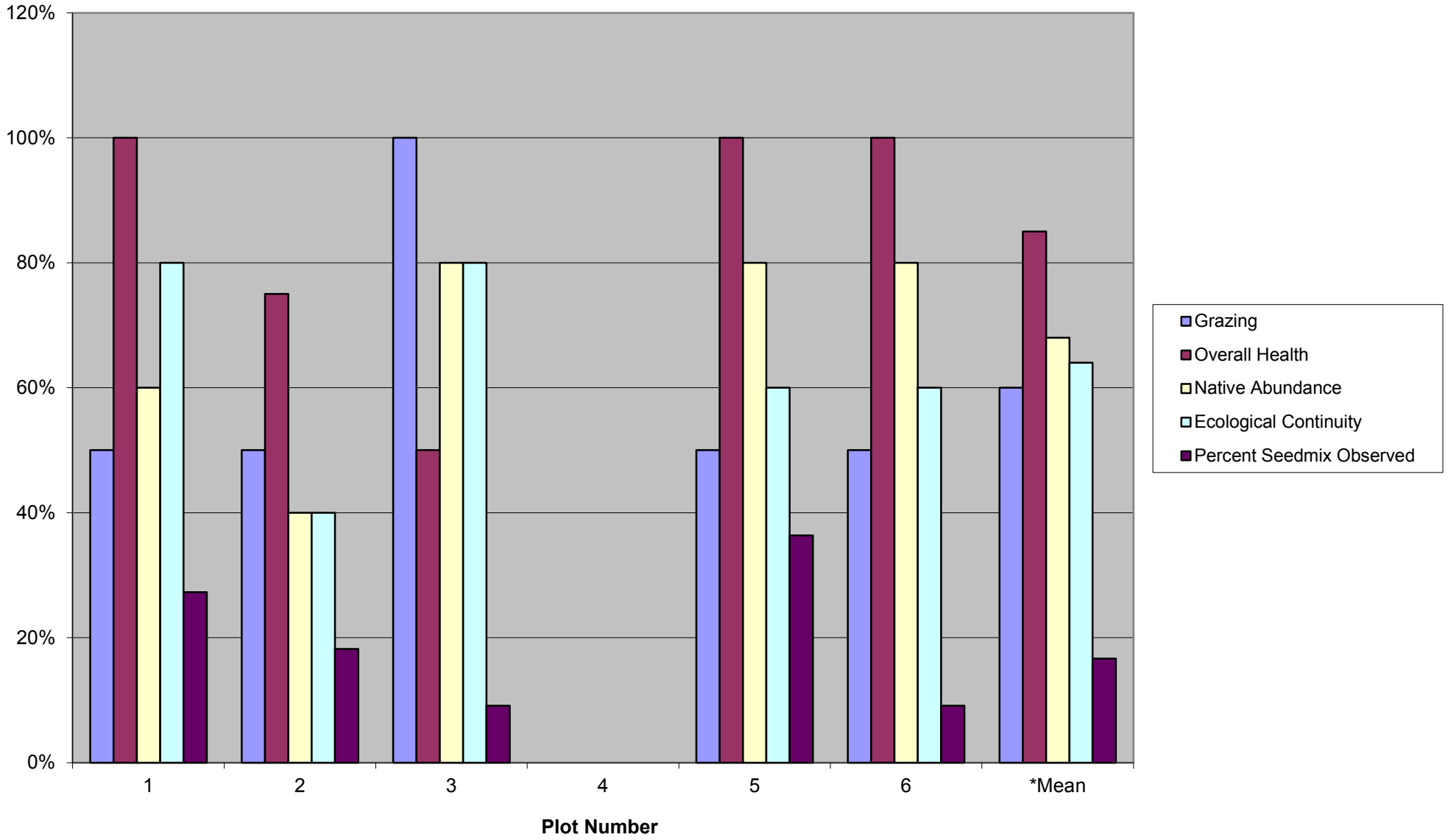


Appendix G-1.xls

Ecological Continuity Value (1-5)			4	2	4	5	3	3
Diversity			Continuous	Monoculture Fescue	Continuous	Native State	Continuous	Forest transition
Topography			Berm Summit	End shoulder	steep slope	Downslope	Top steep slope	Across ditch
				Salt damage	Good	High	Good	Good
Hydrology			Good Drainage; Low Erosion	Poor drainage; stressed pines	wet drainage area	Well Drained	Well drained	Good Drainage
Percent Vegetation Cover								
Percent canopy (foliar) Cover			100%	100%	100%	100%	100%	90%
Percent Bare Ground			0%	0%	0%	0%	0%	0%
Percent Basal/Soil Surface Cover			10%	50%	30%	20%	30%	0%
Amendments		No Information						
Fertilizer (yes/no)	No	no						
Biological nutrient organic based fertilizer (lbs/acre)	data not available	data not available						
Humate (lbs/acre)	data not available	data not available						
Compost (cys/acre)	data not available	data not available						
Spray on organic amendments (lbs/acre)	data not available	Biosol						
Soil Chemistry								
Soil pH			--	7.4	7.6	6.6	7.5	8.4
Soil EC			--	0.05	0.29	0.12	0.04	0.21
Surface Depth			0-6	0-4	0-6	0-4	0-6	2-4
Surface Color			10 YR 3/3	10YR 3/2	2.5Y 3/2	10YR 3/3	2.5Y 4/3	10 YR 4/3
Subsurface Color			7.5Y 4/4	10YR 4/3	2.5Y 4/4	10YR 3/3	2.5Y 5/4	2.5Y 5/3

Relative Health Evaluations



Summary Scores for Hwy 285 Vegetation Surveys

Plot	Reference Plot (#4)	Scores			Grazing/ Herbivory	Overall Health	Native Plant Abundance	Ecological Continuity
		Canopy cover	Bare ground	Basal cover				
1		100%	0%	10%	1	4	3	4
2		100%	0%	50%	1	3	2	2
3		100%	0%	30%	2	2	4	4
4	Reference	100%	0%	20%	2	4	5	5
5		100%	0%	30%	1	4	4	3
6		90%	0%	0%	1	4	4	3
	Ave. Score Excluding Plot 4	98%	0%	24%	1.2	3.4	3.4	3.2

Relative Health Evaluations

Plot	Grazing	Overall Health	Native Abundance	Ecological Continuity	Percent Seedmix Observed
1	50%	100%	60%	80%	27%
2	50%	75%	40%	40%	18%
3	100%	50%	80%	80%	9%
4					0%
5	50%	100%	80%	60%	36%
6	50%	100%	80%	60%	9%
*Mean	60%	85%	68%	64%	17%

HWY 285 TerraLogic for CDOT
USDA Codes for Plants

Seed Mix Species	USDA		
Latin Name	Code	Common Name	Notes
Phase 2			
<i>Achillea millefolium</i>	ACMI2	yarrow	looks like fern lvs
<i>Andropogon gerardii</i>	ANGE	big bluestem	tuft or rhizome(short, absent); ligules membranous; blades flat, folded
<i>Bouteloua curtipendula</i> var 'vaughn'	BOCU	sideoats grama	tufted with rhizomes < B gracilis
<i>Bouteloua gracilis</i> var 'hachita'	BOGR2	blue grama	one-sided flags; ligules of hairs; tufted short rhizomes
<i>Festuca ovina</i> v. 'durar' (arizonica)	FEAR2	Arizona; syn F. ovina	tufted; blades filiform, involute; spikelets awned
<i>Linum lewisii</i>	LILEL2	native flax	blue flowers easily falling; thin, delicate stem; early
<i>Pascopyrum smithii</i> var 'arriba'	PASM	western wheatgrass	blue-grn; glumes asymmetrical acute, ciliate; rhizomatous
<i>Penstemon strictus</i> var 'bandera'	PEST2	Rocky Mtn penstemon	anther hairs > anther sacs
<i>Thinopyrum intermedium</i>	THIN6	Intermediate wheatgrass	leaf smooth, fringed; can be blue-grn, droopy; introduced
<i>Trifolium hybridum</i>	TRHY	Alsike clover	no drought; flwr smaller; introduced
Phase 3 plants in addition to seedmix			
<i>Ericameria nauseosa</i>	ERNA10	rabbitbrush	gray-green shrub with tiny yellow disc flowers
<i>Rosa woodsii</i>	ROWO	Woods rose	prickly & thorns; woody base
Weeds			
<i>Bromus tectorum</i>	BRTE	cheat grass; downy brome	dense white down base; easy to pull; lemmas narrow; l
<i>Centaurea diffusa</i>	CEDI3	diffuse knapweed	dried; head (phyllaries) looks like white fishnet
<i>Centaurea maculosa</i>	CESTM	spotted knapweed	syn C stoebe ssp micranthos; pinnate hairy lvs; spotted involucre
<i>Cirsium arvense</i>	CIAR4	Canada thistle	many heads; involucre of curved red spines
<i>Euphorbia esula</i>	EUES	leafy spurge	milky sap; green spaceship flowers; alternate, entire leaves
<i>Linaria vulgaris</i>	LIVU2	butter n eggs; toadflax	flwrs > 1 cm; pointy yellow & orange palate
<i>Sonchus arvensis</i>	SOAR2	perennial sowthistle	dandelion red stem, spiny lvs; small dandelion yellow flowers
<i>Verbascum thapsus</i>	VETH	common mullein	Indian tp
Introduced			
<i>Bromus inermis</i>	BRIN2	smooth brome	W, M; sandpapery; l-introduced
<i>Dactylis glomerata</i>	DAGL	orchard grass	chimney brush; ligule uneven light grn ragged; introduced
<i>Lactuca virosa</i>	LAVI	bitter lettuce	serrated, clasping end-cut lvs with prickles on underside of vein

Appendix G-1.xls

<i>Medicago sativa</i>	MESA	alfalfa	purple pea flowers with small clover-like cauline leaves
<i>Melilotus officinale</i>	MEOF	sweet clover	yellow, tall, thin clover
<i>Phleum pratense</i>	PHPR3	timothy	dense spikes; base of culm bulblike; sheaths not inflated
<i>Poa pratensis</i>	POPR	Kentucky bluegrass	rhizomes; wetter area
<i>Sisymbrium altissimum</i>	SIAL2	Jim Hill Mustard	skeleton lvs; tiny yellow 4 petal flwrs
<i>Taraxacum officinale</i>	TAOF	dandelion	
<i>Thinopyrum intermedium</i>	THIN6	Intermediate wheatgrass	leaf smooth, fringed; can be blue-grn, droopy; introduced
<i>Thlaspi arvense</i>	THAR5	pennycress	tiny white flowers; penny fruits
<i>Tragopogon dubius</i>	TRDU	yellow salsify	green sepals > petals; alternate gray-grn entire lvs
<i>Trifolium hybridum</i>	TRHY	Alsike clover	no drought; flwr smaller; introduced
<i>Trifolium pratense</i>	TRPR2	red clover	red clover; heads sessile; subtended few leaves; papery bract
<i>Trifolium repens</i>	TRRE3	white clover	native white clover
Graminoids			
<i>Carex nebrascensis</i>	CANE2	Nebraska sedge	black scales; fatter and more robust than <i>C. aquatilis</i>
<i>Carex praegracilis</i>	CAPR5	clustered field sedge	dry habitat; 3 straw colored spikelets overlapping & ascending
<i>Elymus elymoides</i>	ELEL5	squirreltail	tufted, reddish florets, open stars; > delicate <i>H. jubatum</i> ; lots of dead lvs at base
<i>Elymus trachycaulus</i>	ELTR7	slender wheatgrass	glumes as long as entire spikelet
<i>Hesperostipa comata</i>	HECO26	needle and thread grass	1 floret/spike; ligules membranous, short ciliate; awns long, bent
<i>Juncus arcticus ssp littoralis</i>	JUARL	mountain rush	star flwrs; clusters mid-stem
<i>Koeleria macrantha</i>	KOMA	prairie June grass	2 florets/spike/shiny, glume long; boat tips; tufted; awnless
<i>Nassella viridula</i>	NAVI4	green needlegrass	tufted; culms 5-10 dm tall; blades involute; spikelets 7-12mm; awns 2-3cm long
<i>Sedge 1</i>	SEGE1	sedge	edges; wetlands
<i>Sedge 3</i>	SEGE3		no perigynia; cannot ID to species
<i>Sedge 4</i>	SEGE4		no perigynia; cannot ID to species
<i>Sporobolus heterolepis</i>	SPHE	prairie dropseed	1 floret/spike; ligules ciliate, glumes<lemmas; no awns; open panicle
Forbs			
<i>Adenolinum lewisii</i>	LILEL2	prairie flax	erect narrow stem; alternate tiny lvs
<i>Alyssum sp</i>	ALYSSUM		unknown alyssum perennial
<i>Alyssum simplex</i>	ALS18	alyssum	annual; yellow; short; lvs gone at seeding
<i>Antennaria parvifolia</i>	ANPA4	small leaf pussytoes	blue-gray tiny succulent lvs; groundcover; white heads many flwrs
<i>Arabis lignifera</i>	ARLI	desert rockcress	2 ft; sticklike; terete siliques

Appendix G-1.xls

<i>Arnica cordifolia</i>	ARCO9	heratleaf arnica	heart-shaped lvs; shady, wet; opposite lvs; yellow ray flowers
<i>Artemisia frigida</i>	ARFR4	prairie sagewort	finely dissected lvs
<i>Artemisia ludoviciana</i>	ARLU	white sagebrush	smaller lvs in internodes
<i>Aster</i>	ASTER1	perennial aster	unknown and not flowering aster
<i>Astragalus flexuosus</i>	ASFL2	flexile milkvetch	pinnate lvs; long stems; white to purple flwrs; pea fruits
<i>Comandra umbellata</i>	COUM	bastard toadflax	tiny mustard; white flwrs; green-brown ball bearing like seeds
<i>Erigeron sp</i>	ERIG	fleabane	
<i>Erigeron flagellaris</i>	ERFL	trailing fleabane	stolons
<i>Galium boreale</i>	GABO2	bedstraw	whorled leaves
<i>Grindelia squarrosa</i>	GRSQ	curlycup gumweed	clasped leaves
<i>Heterotheca villosa</i>	HEVI4	hairy false goldenaster	hairy, sticky though soft
<i>Linum lewisii</i>	LILEL2	prairie flax	stamens and styles equal
<i>Lupinus argenteus</i>	LUAR3	Lupinus argenteus	whorled hairy lvs gray appearance; flwrs off-white to purple
<i>Mertensia lanceolata</i>	MELA3	prairie bluebells; chiming bells	dryer habitat; alternate, entire lvs; filaments attached top of tube
<i>Rumex crispus</i>	RUCR	curly dock	curly lvs; lacking ancillary shoots (with-altissimus)
<i>Scutellaria brittonii</i>	SCBR3	skullcap	tiny purple tube flowers with opposite pairs of leaves alternating on the stem
<i>Thermopsis divaricarpa</i>	THDI	golden banner	bright yellow pea flowers
<i>Tradescantia occidentalis</i>	TROC	prairie spiderwort	triangular purple blue flwr; sepals succulent whorled > 3-7 in
Shrubs & Trees			
<i>Apocynum androsaemifolium</i>	APAN2	spreading dogbane	pink flwrs; opposite lvs, bright red veins and stems
<i>Arctostaphylos uva-ursi</i>	ARUV	kinnikinnick	groundcover with shiny, penny-size oblong leaves
<i>Ericameria nauseosa</i>	ERNA10	rubber rabbitbrush	
<i>Juniperus communis</i>	JUCO6	common juniper	ground cover; blue berries
<i>Mahonia repens</i>	MARE11	oregon grape; barberry	yellow flwrs; holly lvs
<i>Picea engelmannii</i>	PIEN	Engelmann spruce	tips of cone toothed, notched, pointed, <6 in; not as sharp to touch as blue spruce
<i>Picea pungens</i>	PIPU	Colorado blue spruce	6-8 inch cones
<i>Pinus ponderosa</i>	PIPO	Ponderosa pine	3 lvs 4-9 in; cone w/ sharp pointed
<i>Quercus gambelii</i>	QUGA	gamble oak	shrub with oak lvs
<i>Rosa woodsii</i>	ROWO	Wood's rose	broad based thorns and prickles; red stems
<i>Salix</i>	SALIX 1	willow	narrow leaf low shrub usually in wet areas