

APPENDIX A**PLANT SPECIES FROM DEBRIS FLOW SUCCESSION ANALYSIS**

Appendix A Total Species List. The following table contains a compilation of all of the species found growing within the 41 debris flow deposits investigated during the course of this investigation.

<i>Abies</i> spp.	1 fir
<i>Achillea millefolium</i>	Yarrow
<i>Agoseris aurantiaca</i>	Orange Daisy-like
<i>Agoseris</i> spp.	Yellow, serrated petals, smooth leaf
<i>Anemone</i> spp.	Anemone
<i>Aquilegia</i> spp.	Columbine
<i>Arenaria rubella</i>	Boreal Sandwort
<i>Arnica alpina</i>	Hairy-leaf Daisy
<i>Artemisia frigida</i>	Fringed Sagewort
<i>Artemisia ludovicana</i>	Cudleaf Sagewort
<i>Artemisia</i> spp.	Sage
<i>Aster</i> spp.	Purple Aster
<i>Astragalus alpinus</i>	Purple Vetch
<i>Balsamorhiza sagittata</i>	Arrowleaf Balsamroot
<i>Castilleja</i> spp.	Indian Paintbrush
<i>Cerastium arvense</i>	Mouse-eared Chickweed
<i>Cirsium</i> spp.	Thistle
<i>Clematis columbiana</i>	Rock Clematis
<i>Epilobium latifolium (angustifolium)</i>	Fireweed
<i>Epilobium watsonii</i>	Teeny purple flowers
<i>Eriogonum ovalifolium</i>	Eriogonum
<i>Eriogonum</i> spp.	Eriogonum/Buckwheat
<i>Eriogonum</i> spp.	Buckwheat
<i>Fragaria</i> spp.	Strawberry
<i>Hedysarum</i> spp.	Vetch
<i>Hedysarum sulphurescens</i>	White Vetch
<i>Hedysarum sulphurescens</i>	White (Yellow) Vetch
<i>Heracleum lanatum</i>	Cow Parsnip
<i>Heuchera cylindrica</i>	Rock Alumroot
<i>Hieracium albertinum</i>	Yellow Double Flower Spiny-Stem
<i>Hordeum jubatum</i>	Foxtail Barley
<i>Linum lewisii</i>	Blue Flax
<i>Lomatium</i> spp.	Parsley-dillweed
<i>Lupinus</i> spp.	Lupine
<i>Melilotus</i> spp.	White Sweet Clover
<i>Mertensia</i> spp.	Mountain Bluebell
<i>Pedicularis contorta</i>	Lousewort
<i>Penstemon fruticosus</i>	Purple Tube Dude
<i>Penstemon</i> spp.	Purple Penstemon
<i>Phacelia hastata</i>	Silverleaf Phil
<i>Phacelia sericea</i>	Silky Phacelia-Bottlebrush

<i>Phyllodoce empetrifomis</i>	Pink Mountain Heather
<i>Phyllodoce</i> spp.	Heather
<i>Pinus</i> spp.	1 small pine seedling
<i>Polemonium pulcherrimum</i>	Jacob's Ladder
<i>Populus</i> spp.	Small Aspen or Cottonwood
<i>Populus tremuloides</i>	Aspen
<i>Populus trichocarpa</i>	Cottonwood (black)
<i>Potentilla gracilis</i>	Tall Strawberry
<i>Potentilla</i> spp.	Shrubby cinquefoil
<i>Ranunculus</i> spp.	Yellow Mountain Buttercup
<i>Ribes</i> spp.	Currant/Gooseberry
<i>Rosa</i> spp.	Wild Rose
<i>Rubus parviflorus</i>	Thimbleberry
<i>Rubus</i> spp.	Raspberry
<i>Salix</i> spp.	Willow
<i>Saxifraga bronchialis</i>	Saxifraga moss w/tiny white flowers
<i>Saxifraga</i> spp.	Saxifraga
<i>Sedum lanceolatum</i>	Yellow Triangular Sedum
<i>Sedum lanceolatum</i>	Stonecrop
<i>Sedum</i> spp.	Sedum
<i>Senecio</i> spp.	Groundsel/Butterweed
<i>Silene parryi</i>	Parry's Campion
<i>Spiraea</i> spp.	Spirea
<i>Symphoricarpos albus</i>	Snowberry (snowbush)
<i>Taraxacum</i> spp.	Dandelion
<i>Viola glabella</i>	Small Yellow Violet/Pansy
1 unidentified flower	Multi-flower daisy, opposite leaves
1 unidentified flower	Yellow rosette
1 unidentified flower	Tall white 5-petal
1 unidentified flower	Teeny white w/narrow opposite leaves
1 unidentified flower	Fuzzy bud-head with leafed branches
1 unidentified flower	Smooth leaf daisy
1 unidentified flower species	(<i>Eriophyllum lanatum</i> not in Lesica 1985)
1 unidentified flower species	Mats w/shiny leaves, hanging yellow flowers, & probiscus-type seed heads
1 unidentified flower species	Small white bunch head; opposite leaves
1 unidentified shrub	Probably <i>Alder</i> spp.
2 unidentified flower	Silver-leaf & long narrow daisy
2 unidentified flowers	Purple bud-head & non-hairy daisy
5 unidentified flowering species	Dandelion-like; Rhizome; Yellow-fern; White; Snapdragon

Altyn 1 (ALT-1) 20Jul96 lists 5 vegetation samples (fieldnote page 96-106)

Latin Name*	Common Name
<i>Artemisia frigida</i>	Fringed Sagewort
<i>Fragaria</i> spp.	Strawberry
<i>Phacelia hastata</i>	Silverleaf Phacelia
<i>Senecio</i> spp.	Groundsel/Butterweed
<i>Miscellaneous grasses</i>	

*All genus and species as listed in: Lesica 1985.

Altyn 1A (ALT-1A) 30Jul96 lists 9 vegetation samples (fieldnote page 96-138)

Latin Name*	Common Name
<i>Artemisia frigida</i>	Fringed Sagewort
<i>Eriogonum</i> spp.	Buckwheat
<i>Lupinus</i> spp.	Lupine
<i>Penstemon</i> spp.	Purple Penstemon
<i>Phacelia hastata</i>	Silverleaf Phacelia
<i>Rubus</i> spp.	Raspberry
<i>Sedum lanceolatum</i>	Yellow Triangular Sedum
<i>1 unidentified flower</i>	Multi-flower daisy, opposite leaves
<i>Miscellaneous grasses</i>	

*All genus and species as listed in: Lesica 1985.

Altyn 2 (ALT-2) 30Jul96 lists 9 vegetation samples (fieldnote page 96-136)

Latin Name*	Common Name
<i>Achillea millefolium</i>	Yarrow
<i>Artemisia frigida</i>	Fringed Sagewort
<i>Epilobium watsonii</i>	Teeny purple flowers
<i>Penstemon</i> spp.	Purple Penstemon
<i>Phacelia hastata</i>	Silverleaf Phacelia
<i>Rubus</i> spp.	Raspberry
<i>Sedum lanceolatum</i>	Yellow Triangular Sedum
<i>1 unidentified flower</i>	Multi-flower daisy, opposite leaves
<i>Miscellaneous grasses</i>	

*All genus and species as listed in: Lesica 1985.

Altyn 3 (ALT-3) 30Jul96 lists 6 vegetation samples (fieldnote page 96-142)

Latin Name*	Common Name
<i>Artemisia frigida</i>	Fringed Sagewort
<i>Castilleja</i> spp.	Indian Paintbrush
<i>Cerastium arvense</i>	Mouse-eared Chickweed
<i>Penstemon</i> spp.	Purple Penstemon
<i>Phacelia hastata</i>	Silverleaf Phacelia
<i>Miscellaneous grasses</i>	

*All genus and species as listed in: Lesica 1985.

Apikuni Dead Goat (APK-DG) 04Aug95 lists **24** vegetation samples
(fieldnote pages 95-31thru34)

Latin Name*	Common Name
<i>Abies</i> spp.	1 ~8" fir seedling
<i>Arenaria rubella</i>	Boreal Sandwort
<i>Artemisia frigida</i>	Fringed Sagewort
<i>Astragalus alpinus</i>	Purple Vetch
<i>Balsamorhiza sagittata</i>	Arrowleaf Balsamroot
<i>Epilobium latifolium (angustifolium)</i>	Fireweed
<i>Epilobium watsonii</i>	Teeny purple flowers
<i>Eriogonum ovalifolium</i>	Eriogonum
<i>Heracleum lanatum</i>	Cow Parsnip
<i>Heuchera cylindrica</i>	Rock Alumroot
<i>Penstemon fruticosus</i>	Purple Tube Dude
<i>Phacelia hastata</i>	Silverleaf Phacelia
<i>Ribes</i> spp.	Currant/Gooseberry
<i>Rubus</i> spp.	Raspberry
<i>Sedum lanceolatum</i>	Yellow Triangular Sedum
<i>Senecio</i> spp.	Groundsel/Butterweed
<i>Spiraea</i> spp.	Spirea
2 unidentified woody shrubs	shiny leaves, reddish stems; fuzzy new leaves
1 unidentified flower	Yellow, fat petals, juicy leaves
Miscellaneous grasses	Multiple species (1,1,1,1)

*All genus and species as listed in: Lesica 1985.

Apikuni Dead Goat South (APK-DGS) 10Jul96 lists **14** vegetation samples
(fieldnote pages 96-58 & 59)

Latin Name*	Common Name
<i>Achillea millefolium</i>	Yarrow
<i>Aquilegia</i> spp.	Columbine
<i>Artemisia</i> spp.	Small Sage
<i>Astragalus alpinus</i>	Purple Vetch
<i>Cerastium arvense</i>	Mouse-eared Chickweed
<i>Hedysarum sulphurescens</i>	White Vetch
<i>Linum lewisii</i>	Blue Flax
<i>Penstemon fruticosus</i>	Purple Tube Dude
<i>Phacelia hastata</i>	Silverleaf Phacelia
<i>Phacelia sericea</i>	Silky Phacelia
<i>Polemonium pulcherrimum</i>	Jacob's Ladder
<i>Potentilla</i> spp.	Shrubby cinquefoil
1 unidentified flower species	(<i>Eriophyllum lanatum</i> not in Lesica 1985)
Miscellaneous grasses	

*All genus and species as listed in: Lesica 1985.

Apikuni Big Red (APK-BR) 11Jul96 lists 8 vegetation samples (fieldnote page 96-70)

Latin Name*	Common Name
<i>Arnica alpina</i>	Hairy-leaf Daisy
<i>Artemisia frigida</i>	Fringed Sagewort (sage)
<i>Cerastium arvense</i>	Mouse-eared Chickweed
<i>Eriogonum</i> spp.	Buckwheat
<i>Phacelia hastata</i>	Silverleaf Phacelia
<i>Phacelia sericea</i>	Silky Phacelia
<i>Miscellaneou grasses</i>	
Note: Above species were located on the oldest deposits; species on two younger deposits are listed below	
<i>Artemisia frigida</i>	Fringed Sagewort (sage)
<i>Eriogonum</i> spp.	Buckwheat
<i>Phacelia hastata</i>	Silverleaf Phacelia
<i>Phacelia sericea</i>	Silky Phacelia
<i>Miscellaneou grasses</i>	
Note: Species listed immediately above were located on the mid-age deposits; the single individual listed below was on material deposited in 1995	
<i>Cirsium</i> spp.	Thistle (One single individual plant only)

*All genus and species as listed in: Lesica 1985.

Apikuni Little Red (APK-LR) 11Jul96 lists 17 vegetation samples (fieldnote pages 96-63 & 66)

Latin Name*	Common Name
<i>Achillea millefolium</i>	Yarrow
<i>Anemone</i> spp.	Anemone
<i>Arnica alpine</i>	Hairy-leaf Daisy
<i>Artemisia frigida</i>	Fringed Sagewort (sage)
<i>Artemisia ludovicana</i>	Cudleaf Sagewort
<i>Cirsium</i> spp.	Thistle
<i>Epilobium watsonii</i>	Teeny purple flowers
<i>Eriogonum ovalifolium</i>	Eriogonum
<i>Heracleum lanatum</i>	Cow Parsnip
<i>Linum lewisii</i>	Blue Flax
<i>Penstemon fruticosus</i>	Purple Tube Dude
<i>Phacelia hastata</i>	Silverleaf Phacelia
<i>Phacelia sericea</i>	Silky Phacelia
<i>Populus</i> spp.	Small Aspen or Cottonwood
<i>Potentilla</i> spp.	Shrubby cinquefoil
<i>1 unidentified flower</i>	Smooth leaf daisy
<i>Miscellaneous grasses</i>	

*All genus and species as listed in: Lesica 1985.

Appistoki 1 (APT-1) 10Aug95 lists 33 vegetation samples (fieldnote pages 95-41thru46)

Latin Name*	Common Name
<i>Achillea millefolium</i>	Yarrow
<i>Agoseris aurantiaca</i>	Orange Daisy-like
<i>Arenaria rubella</i>	Boreal Sandwort
<i>Artemisia</i> spp.	Sage
<i>Astragalus alpinus</i>	Purple Vetch
<i>Cirsium</i> spp.	Thistle
<i>Epilobium latifolium (angustifolium)</i>	Fireweed
<i>Epilobium watsonii</i>	Teeny purple flowers
<i>Eriogonum ovalifolium</i>	Eriogonum
<i>Hedysarum sulphurescens</i>	White Vetch
<i>Heracleum lanatum</i>	Cow Parsnip
<i>Hieracium albertinum</i>	Yellow Double Flower Spiny-Stem
<i>Linum lewisii</i>	Blue Flax
<i>Lomatium</i> spp.	Parsley-dillweed
<i>Melilotus</i> spp.	White Sweet Clover
<i>Mertensia</i> spp.	Mountain Bluebell
<i>Penstemon fruticosus</i>	Purple Tube Dude
<i>Phacelia hastata</i>	Silverleaf Phacelia
<i>Phyllodoce empetrifolmis</i>	Pink Mountain Heather
<i>Potentilla gracilis</i>	Tall Strawberry
<i>Potentilla</i> spp.	Shrubby cinquefoil
<i>Ribes</i> spp.	Currant/Gooseberry
<i>Sedum lanceolatum</i>	Yellow Triangular Sedum
<i>Senecio</i> spp.	Groundsel
<i>Silene parryi</i>	Parry's Campion
5 unidentified flowering species	Dandelion-like; Rhizome; Yellow-fern; White; Snapdragon
Miscellaneous grasses	Several species (1,1,1)

*All genus and species as listed in: Lesica 1985.

Appistoki 2 (APT-2) 06Jul96 lists 13 vegetation samples (fieldnote pages 96-28&29)

Latin Name*	Common Name
<i>Achillea millefolium</i>	Yarrow
<i>Arnica alpina</i>	Hairy-leaf Daisy
<i>Epilobium watsonii</i>	Teeny purple flowers
<i>Eriogonum</i> spp.	Buckwheat
<i>Linum lewisii</i>	Blue Flax
<i>Lomatium</i> spp.	Parsley-dillweed
<i>Phacelia hastata</i>	Silverleaf Phacelia
<i>Potentilla</i> spp.	Cinquefoil
<i>Saxifraga</i> spp.	Saxifraga
<i>Sedum</i> spp.	Sedum
<i>Viola glabella</i>	Small Yellow Violet/Pansy
1 unidentified flowering plant	Smooth-leafed daisy
Miscellaneous grasses	

*All genus and species as listed in: Lesica 1985.

Appistoki 3 (APT-3) 06Jul96 lists 10 vegetation samples (fieldnote page 96-31)

Latin Name*	Common Name
<i>Arnica alpina</i>	Hairy-leaf Daisy
<i>Epilobium watsonii</i>	Teeny purple flowers
<i>Lomatium</i> spp.	Parsley-dillweed
<i>Lupinus</i> spp.	Lupine
<i>Phacelia hastata</i>	Silverleaf Phacelia
<i>Potentilla</i> spp.	Cinquefoil
<i>Saxifraga bronchialis</i>	Saxifrag moss w/tiny white flowers
<i>Viola glabella</i>	Small Yellow Violet/Pansy
1 unidentified flower	Smooth leaf daisy
Miscellaneous grasses	

*All genus and species as listed in: Lesica 1985.

Appistoki 4 (APT-4) 06Jul96 lists 13 vegetation samples (fieldnote pages 96-34&35)

Latin Name*	Common Name
<i>Achillea millefolium</i>	Yarrow
<i>Arnica alpina</i>	Hairy-leaf Daisy
<i>Lomatium</i> spp.	Parsley-dillweed
<i>Mertensia</i> spp.	Mountain Bluebell
<i>Phacelia hastata</i>	Silverleaf Phacelia
<i>Phacelia sericea</i>	Silky Phacelia
<i>Polemonium pulcherrimum</i>	Jacob's Ladder
<i>Potentilla</i> spp.	Cinquefoil (nonshrubby form)
<i>Ribes</i> spp.	Currant/Gooseberry
<i>Viola glabella</i>	Small Yellow Violet/Pansy
2 unidentified flowers	Purple bud-head & non-hairy daisy
Miscellaneous grasses	

*All genus and species as listed in: Lesica 1985.

Appistoki 5 (APT-5) 07Jul96 lists 13 vegetation samples (fieldnote page 96-38)

Latin Name*	Common Name
<i>Agoseris</i> spp.	Yellow, serrated petals, smooth leaf
<i>Anemone</i> spp.	Anemone
<i>Cerastium arvense</i>	Mouse-eared Chickweed
<i>Eriogonum</i> spp.	Eriogonum/Buckwheat
<i>Linum lewisii</i>	Blue Flax
<i>Lupinus</i> spp.	Lupine
<i>Phacelia hastata</i>	Silverleaf Phacelia
<i>Phacelia sericea</i>	Silky Phacelia-Bottlebrush
<i>Phyllodoce</i> spp.	Heather
<i>Polemonium pulcherrimum</i>	Jacob's Ladder
<i>Sedum</i> spp.	Sedum
1 unidentified flower species	(<i>Eriophyllum lanatum</i> not in Lesica 1985)
Miscellaneous grasses	

*All genus and species as listed in: Lesica 1985.

Appistoki 6 (APT-6) 07Jul96 lists 8 vegetation samples (fieldnote page 96-41)

Latin Name*	Common Name
<i>Agoseris</i> spp.	Yellow, serrated petals, smooth leaf
<i>Anemone</i> spp.	Anemone
<i>Eriogonum</i> spp.	Eriogonum/Buckwheat
<i>Lupinus</i> spp.	Lupine
<i>Polemonium pulcherrimum</i>	Jacob's Ladder
<i>Sedum</i> spp.	Sedum
1 unidentified flower species	(<i>Eriophyllum lanatum</i> not in Lesica 1985)
Miscellaneous grasses	

*All genus and species as listed in: Lesica 1985.

Appistoki 7 (APT-7) 07Jul96 lists 12 vegetation samples (fieldnote page 96-43)

Latin Name*	Common Name
<i>Aquilegia</i> spp.	Columbine
<i>Arnica alpina</i>	Hairy-leaf Daisy
<i>Epilobium latifolium (angustifolium)</i>	Fireweed
<i>Heuchera cylindrica</i>	Rock Alumroot
<i>Lupinus</i> spp.	Lupine
<i>Phacelia hastata</i>	Silverleaf Phacelia
<i>Phacelia sericea</i>	Silky Phacelia-Bottlebrush
<i>Polemonium pulcherrimum</i>	Jacob's Ladder
<i>Saxifraga bronchialis</i>	Spotted saxifrage
<i>Sedum</i> spp.	Sedum
1 unidentified flower species	(<i>Eriophyllum lanatum</i> not in Lesica 1985)
Miscellaneous grasses	

*All genus and species as listed in: Lesica 1985.

Cracker 63 (CRK-63) 27Jul96 lists 14 vegetation samples (fieldnote page 96-130)

Latin Name*	Common Name
<i>Achillea millefolium</i>	Yarrow
<i>Anemone</i> spp.	Anemone
<i>Castilleja</i> spp.	Indian Paintbrush
<i>Epilobium latifolium (angustifolium)</i>	Fireweed
<i>Epilobium watsonii</i>	Teeny purple flowers
<i>Eriogonum</i> spp.	Buckwheat
<i>Hedysarum sulphurescens</i>	White Vetch
<i>Heuchera cylindrica</i>	Rock Alumroot
<i>Penstemon</i> spp.	Purple Penstemon
<i>Salix</i> spp.	Willow
<i>Taraxacum</i> spp.	Dandelion
1 unidentified flower	Multi-flower daisy, opposite leaves
1 unidentified shrub	Probably Alder spp.
Miscellaneous grasses	

*All genus and species as listed in: Lesica 1985.

Cracker 64 (CRK-64) 27Jul96 lists 7 vegetation samples (fieldnote page 96-127)

Latin Name*	Common Name
<i>Castilleja</i> spp.	Indian Paintbrush
<i>Hedysarum sulphurescens</i>	White Vetch
<i>Heuchera cylindrica</i>	Rock Alumroot
<i>Salix</i> spp.	Willow
1 unidentified flower	Yellow rosette
1 unidentified flower species	Mats w/shiny leaves, hanging yellow flowers, & probiscus-type seed heads
Miscellaneous grasses	

*All genus and species as listed in: Lesica 1985.

Cracker 64East (CRK-64E) 27Jul96 lists 16 vegetation samples (fieldnote page 96-125)

Latin Name*	Common Name
<i>Anemone</i> spp.	Anemone
<i>Castilleja</i> spp.	Indian Paintbrush
<i>Cerastium arvense</i>	Mouse-eared Chickweed
<i>Hedysarum sulphurescens</i>	White Vetch
<i>Penstemon</i> spp.	Purple Penstemon
<i>Phacelia hastata</i>	Silverleaf Phacelia
<i>Phacelia sericea</i>	Silky Phacelia-Bottlebrush
<i>Phyllodoce empetriiformis</i>	Pink Mountain Heather
<i>Pinus</i> spp.	1 small pine seedling
<i>Ribes</i> spp.	Currant/Gooseberry
<i>Salix</i> spp.	Willow
1 unidentified flower	Yellow rosette
2 unidentified flowers	Yellow daisy-types
1 unidentified shrub	Probably <i>Alder</i> spp.
Miscellaneous grasses	

*All genus and species as listed in: Lesica 1985.

Cracker 65 (CRK-65) 22Jul96 lists 19 vegetation samples (fieldnote page 96-114)

Latin Name*	Common Name
<i>Epilobium latifolium (angustifolium)</i>	Fireweed
<i>Phacelia hastata</i>	Silverleaf Phacelia
<i>Rosa</i> spp.	Wild Rose
Miscellaneous grasses	
Note: Above 4 species found on the freshest deposits; Species listed below found on the next oldest deposits and in the channel below the trail	
<i>Achillea millefolium</i>	Yarrow
<i>Artemisia frigida</i>	Fringed Sagewort (sage)
<i>Castilleja</i> spp.	Indian Paintbrush
<i>Cerastium arvense</i>	Mouse-eared Chickweed
<i>Cirsium</i> spp.	Thistle
<i>Epilobium latifolium (angustifolium)</i>	Fireweed
<i>Fragaria</i> spp.	Strawberry
<i>Hedysarum sulphurescens</i>	White Vetch
<i>Heracleum lanatum</i>	Cow Parsnip
<i>Heuchera cylindrica</i>	Rock Alumroot
<i>Penstemon</i> spp.	Purple Penstemon
<i>Phacelia hastata</i>	Silverleaf Phacelia
<i>Phacelia sericea</i>	Silky Phacelia-Bottlebrush
<i>Potentilla</i> spp.	Cinquefoil
<i>Salix</i> spp.	Willow
<i>Sedum</i> spp.	Sedum
1 unidentified flower	Tall white 5-petal
Miscellaneous grasses	

*All genus and species as listed in: Lesica 1985.

Cracker 66 (CRK-66) 22Jul96 lists 15 vegetation samples (fieldnote page 96-119)

Latin Name*	Common Name
<i>Achillea millefolium</i>	Yarrow
<i>Aquilegia</i> spp.	Columbine
<i>Artemisia frigida</i>	Fringed Sagewort (sage)
<i>Aster</i> spp.	Purple Aster
<i>Epilobium latifolium (angustifolium)</i>	Fireweed
<i>Eriogonum</i> spp.	Buckwheat
<i>Hedysarum sulphurescens</i>	White Vetch
<i>Penstemon</i> spp.	Purple Penstemon
<i>Phacelia hastata</i>	Silverleaf Phacelia
<i>Phacelia sericea</i>	Silky Phacelia-Bottlebrush
<i>Polemonium pulcherrimum</i>	Jacob's Ladder
<i>Sedum</i> spp.	Sedum
1 unidentified flower species	(<i>Eriophyllum lanatum</i> not in Lesica 1985)
1 unidentified flower species	Small white bunch head; opposite leaves
Miscellaneous grasses	

*All genus and species as listed in: Lesica 1985.

Cracker Krumm (CRK-KR) 18Aug96 lists **18** vegetation samples
(fieldnote page 96-148)

Latin Name*	Common Name
<i>Achillea millefolium</i>	Yarrow
<i>Artemisia frigida</i>	Fringed Sagewort (sage)
<i>Aster</i> spp.	Purple Aster
<i>Cerastium arvense</i>	Mouse-eared Chickweed
<i>Epilobium latifolium (angustifolium)</i>	Fireweed
<i>Eriogonum</i> spp.	Buckwheat
<i>Hedysarum</i> spp.	Vetch
<i>Penstemon</i> spp.	Purple Penstemon
<i>Phacelia hastata</i>	Silverleaf Phacelia
<i>Phacelia sericea</i>	Silky Phacelia-Bottlebrush
<i>Polemonium pulcherrimum</i>	Jacob's Ladder
<i>Potentilla</i> spp.	Cinquefoil
<i>Sedum</i> spp.	Sedum
<i>Taraxacum</i> spp.	Dandelion
1 unidentified flower	Teeny white w/narrow opposite leaves
2 unidentified flower	Silver-leaf & long narrow daisy
Miscellaneous grasses	

*All genus and species as listed in: Lesica 1985.

Cracker Mine (CRK-M) 18Aug96 lists **9** vegetation samples
(fieldnote page 96-146)

Latin Name*	Common Name
<i>Achillea millefolium</i>	Yarrow
<i>Artemisia frigida</i>	Fringed Sagewort (sage)
<i>Epilobium latifolium (angustifolium)</i>	Fireweed
<i>Eriogonum</i> spp.	Buckwheat
<i>Penstemon</i> spp.	Purple Penstemon
<i>Phacelia hastata</i>	Silverleaf Phacelia
<i>Sedum</i> spp.	Sedum
1 unidentified flower	Teeny white w/narrow opposite leaves
Miscellaneous grasses	

*All genus and species as listed in: Lesica 1985.

Cracker Mine-West (CRK-MW) 18Aug96 lists **11** vegetation samples
(fieldnote page 96-144)

Latin Name*	Common Name
<i>Achillea millefolium</i>	Yarrow
<i>Castilleja</i> spp.	Yellow Paintbrush
<i>Cerastium arvense</i>	Mouse-eared Chickweed
<i>Epilobium latifolium (angustifolium)</i>	Fireweed
<i>Eriogonum</i> spp.	Buckwheat
<i>Hedysarum</i> spp.	Vetch
<i>Penstemon</i> spp.	Purple Penstemon
<i>Phacelia hastata</i>	Silverleaf Phacelia
2 unidentified flowers	yellow daisy: multi-head & dark green leaf
Miscellaneous grasses	

*All genus and species as listed in: Lesica 1985.

Henkel 1 (HKL-1) 14Jul96 lists 17 vegetation samples (fieldnote pages 96-84 & 85)

Latin Name*	Common Name
<i>Achillea millefolium</i>	Yarrow
<i>Artemisia frigida</i>	Fringed Sagewort (sage)
<i>Artemisia ludovicana</i>	Cudleaf Sagewort
<i>Castilleja</i> spp.	Indian Paintbrush
<i>Cirsium</i> spp.	Thistle
<i>Epilobium latifolium (angustifolium)</i>	Fireweed
<i>Epilobium watsonii</i>	Teeny purple flowers
<i>Hedysarum sulphurescens</i>	White (Yellow) Vetch
<i>Penstemon</i> spp.	Purple Penstemon
<i>Phacelia hastata</i>	Silverleaf Phacelia
<i>Polemonium pulcherrimum</i>	Jacob's Ladder
<i>Potentilla</i> spp.	Cinquefoil
<i>Rosa</i> spp.	Wild Rose
<i>Rubus</i> spp.	Raspberry
1 unidentified shrub species	
1 unidentified flower	Smooth leaf daisy
Miscellaneous grasses	

*All genus and species as listed in: Lesica 1985.

Henkel 2 (HKL-2) 14Jul96 lists 9 vegetation samples (fieldnote page 96-86)

Latin Name*	Common Name
<i>Agoseris aurantiaca</i>	Orange Daisy-like
<i>Epilobium watsonii</i>	Teeny purple flowers
<i>Eriogonum</i> spp.	Buckwheat
<i>Lupinus</i> spp.	Lupine
<i>Penstemon</i> spp.	Purple Penstemon
<i>Phacelia hastata</i>	Silverleaf Phacelia
<i>Rosa</i> spp.	Wild Rose
<i>Rubus</i> spp.	Raspberry
Miscellaneous grasses	

*All genus and species as listed in: Lesica 1985.

Henkel 49 (HKL-49) 13Jul96 lists 15 vegetation samples (fieldnote pages 96-78 & 80)

Latin Name*	Common Name
<i>Achillea millefolium</i>	Yarrow
<i>Aquilegia</i> spp.	Columbine
<i>Artemisia frigida</i>	Fringed Sagewort (sage)
<i>Artemisia ludovicana</i>	Cudleaf Sagewort
<i>Cirsium</i> spp.	Thistle
<i>Epilobium latifolium (angustifolium)</i>	Fireweed
<i>Epilobium watsonii</i>	Teeny purple flowers
<i>Heracleum lanatum</i>	Cow Parsnip
<i>Lomatium</i> spp.	Parsley-dillweed
<i>Penstemon</i> spp.	Purple Penstemon
<i>Phacelia hastata</i>	Silverleaf Phacelia
<i>Phacelia sericea</i>	Silky Phacelia-Bottlebrush
<i>Sedum</i> spp.	Sedum
1 unidentified flower species	(<i>Eriophyllum lanatum</i> not in Lesica 1985)
Miscellaneous grasses	

*All genus and species as listed in: Lesica 1985.

Iceberg 3 (ICE-3) 18Jul96 lists 10 vegetation samples (fieldnote page 96-97)

Latin Name*	Common Name
<i>Abies</i> spp.	1 fir
<i>Aquilegia</i> spp.	Columbine
<i>Fragaria</i> spp.	Strawberry
<i>Phacelia hastata</i>	Silverleaf Phacelia
<i>Ranunculus</i> spp.	Yellow Mountain Buttercup
<i>Ribes</i> spp.	Currant/Gooseberry
<i>Sedum</i> spp.	Sedum
1 unidentified fern	
1 unidentified flower	Fuzzy bud-head with leafed branches
Miscellaneous grasses	

*All genus and species as listed in: Lesica 1985.

Iceberg 4 (ICE-4) 18Jul96 lists 10 vegetation samples (fieldnote pages 96-99 & 100)

Latin Name*	Common Name
<i>Achillea millefolium</i>	Yarrow
<i>Castilleja</i> spp.	Indian Paintbrush
<i>Epilobium watsonii</i>	Teeny purple flowers
<i>Phacelia hastata</i>	Silverleaf Phacelia
<i>Potentilla</i> spp.	Cinquefoil
<i>Ribes</i> spp.	Currant/Gooseberry
<i>Senecio</i> spp.	Groundsel/Butterweed
<i>Symphoricarpos albus</i>	Snowberry (snowbush)
1 unidentified flower	Smooth leaf daisy
Miscellaneous grasses	

*All genus and species as listed in: Lesica 1985.

Iceberg 5 (ICE-5) 18Jul96 lists 5 vegetation samples (fieldnote page 96-99 & 101)

Latin Name*	Common Name
<i>Castilleja</i> spp.	Indian Paintbrush
<i>Phacelia hastata</i>	Silverleaf Phacelia
<i>Symphoricarpos albus</i>	Snowberry (snowbush)
<i>Penstemon</i> spp.	Purple Penstemon
Miscellaneous grasses	

*All genus and species as listed in: Lesica 1985.

Otokomi 1 (OTK-1) 31Jul95 lists 11 vegetation samples (fieldnote pages 95-24 thru 25)

Latin Name*	Common Name
<i>Achillea millefolium</i>	Yarrow
<i>Arenaria rubella</i>	Boreal Sandwort
<i>Artemisia frigida</i>	Fringed Sagewort (sage)
<i>Balsamorhiza sagittata</i>	Arrowleaf Balsamroot
<i>Aquilegia</i> spp.	Columbine
<i>Epilobium latifolium (angustifolium)</i>	Fireweed
<i>Pedicularis contorta</i>	Lousewort
<i>Phacelia hastata</i>	Silverleaf Phacelia
Miscellaneous grasses	
2 unidentified flowering species	

*All genus and species as listed in: Lesica 1985.

Otokomi 2 (OTK-2) 21Jul96 lists ## vegetation samples (fieldnote page 96-113)

Latin Name*	Common Name
<i>Artemisia frigida</i>	Fringed Sagewort
<i>Balsamorhiza sagittata</i>	Arrowleaf Balsamroot
<i>Epilobium latifolium (angustifolium)</i>	Fireweed
<i>Fragaria</i> spp.	Strawberry
<i>Lomatium</i> spp.	Parsley-dillweed
<i>Phacelia hastata</i>	Silverleaf Phacelia
<i>Phacelia sericea</i>	Silky Phacelia-Bottlebrush
Miscellaneous grasses	

*All genus and species as listed in: Lesica 1985.

Poia 11 30Jun96 lists 23 vegetation samples (fieldnote pages 96-15 & 17)

Latin Name*	Common Name
<i>Achillea millefolium</i>	Yarrow
<i>Anemone</i> spp.	Anemone
<i>Aquilegia</i> spp.	Columbine
<i>Artemisia ludovicana</i>	Cudleaf Sagewort
<i>Castilleja</i> spp.	Indian Paintbrush
<i>Cerastium arvense</i>	Mouse-eared Chickweed
<i>Cirsium</i> spp.	Thistle
<i>Epilobium latifolium (angustifolium)</i>	Fireweed
<i>Eriogonum</i> spp.	Buckwheat
<i>Heracleum lanatum</i>	Cow Parsnip
<i>Heuchera cylindrica</i>	Rock Alumroot
<i>Lomatium</i> spp.	Parsley-dillweed
<i>Lupinus</i> spp.	Lupine
<i>Mertensia</i> spp.	Mountain Bluebell
<i>Phacelia hastata</i>	Silverleaf Phacelia
<i>Polemonium pulcherrimum</i>	Jacob's Ladder
<i>Potentilla</i> spp.	Cinquefoil
<i>Ribes</i> spp.	Currant/Gooseberry
<i>Rosa</i> spp.	Wild Rose
<i>Sedum</i> spp.	Sedum
<i>Spiraea</i> spp.	Spirea
1 unidentified flower species	(<i>Eriophyllum lanatum</i> not in Lesica 1985)
Miscellaneous grasses	

*All genus and species as listed in: Lesica 1985.

Poia 12 02Jul96 lists **14** vegetation samples (fieldnote page 96-18)

Latin Name*	Common Name
<i>Aquilegia</i> spp.	Columbine
<i>Cirsium</i> spp.	Thistle
<i>Epilobium latifolium (angustifolium)</i>	Fireweed
<i>Fragaria</i> spp.	Strawberry
<i>Heuchera cylindrica</i>	Rock Alumroot
<i>Lomatium</i> spp.	Parsley-dillweed
<i>Lupinus</i> spp.	Lupine
<i>Mertensia</i> spp.	Mountain Bluebell
<i>Penstemon</i> spp.	Purple Penstemon
<i>Phacelia hastata</i>	Silverleaf Phacelia
<i>Polemonium pulcherrimum</i>	Jacob's Ladder
<i>Rubus</i> spp.	Raspberry
<i>Sedum</i> spp.	Sedum
Miscellaneous grasses	

*All genus and species as listed in: Lesica 1985.

Poia 14 30Jun96 lists **8** vegetation samples (fieldnote page 96-12)

Latin Name*	Common Name
<i>Achillea millefolium</i>	Yarrow
<i>Epilobium latifolium (angustifolium)</i>	Fireweed
<i>Lupinus</i> spp.	Lupine
<i>Mertensia</i> spp.	Mountain Bluebell
<i>Phacelia hastata</i>	Silverleaf Phacelia
<i>Phacelia sericea</i>	Silky Phacelia-Bottlebrush
<i>Salix</i> spp.	Willow
Miscellaneous grasses	

*All genus and species as listed in: Lesica 1985.

Poia 15 30Jun96 lists **13** vegetation samples (fieldnote pages 96-8 thru -9)

Latin Name*	Common Name
<i>Epilobium latifolium (angustifolium)</i>	Fireweed
<i>Lupinus</i> spp.	Lupine
<i>Mertensia</i> spp.	Mountain Bluebell
<i>Penstemon</i> spp.	Purple Penstemon
<i>Phacelia hastata</i>	Silverleaf Phacelia
<i>Phacelia sericea</i>	Silky Phacelia-Bottlebrush
<i>Polemonium pulcherrimum</i>	Jacob's Ladder
<i>Populus tremuloides</i>	Aspen
<i>Populus trichocarpa</i>	Cottonwood (black)
<i>Potentilla</i> spp.	Cinquefoil
<i>Rosa</i> spp.	Wild Rose
<i>Sedum lanceolatum</i>	Stonecrop
Miscellaneous grasses	

*All genus and species as listed in: Lesica 1985.

Poia Sheep 09Jul96 lists 5 vegetation samples (fieldnote page 96-49)

Latin Name*	Common Name
<i>Anemone</i> spp.	Anemone
<i>Hedysarum sulphurescens</i>	White Vetch
<i>Penstemon</i> spp.	Purple Penstemon
<i>Ribes</i> spp.	Currant/Gooseberry
1 unidentified conifer	
Note: No vegetation present on debris flow deposits or levees; there appears to have been a 1995 scouring event; the species listed above were present in an isolated section of the mid to upper channel	

*All genus and species as listed in: Lesica 1985.

Poia 19 09Jul96 lists 20 vegetation samples (fieldnote page 96-45)

Latin Name*	Common Name
<i>Achillea millefolium</i>	Yarrow
<i>Anemone</i> spp.	Anemone
<i>Aquilegia</i> spp.	Columbine
<i>Cirsium</i> spp.	Thistle
<i>Clematis columbiana</i>	Rock Clematis
<i>Epilobium latifolium</i> (<i>angustifolium</i>)	Fireweed
<i>Epilobium watsonii</i>	Teeny purple flowers
<i>Eriogonum ovalifolium</i>	Eriogonum
<i>Hedysarum sulphurescens</i>	White Vetch
<i>Penstemon</i> spp.	Purple Penstemon
<i>Pinus</i> spp.	1-2" tall pine seedlings
<i>Potentilla</i> spp.	Shrubby cinquefoil
<i>Ribes</i> spp.	Currant/Gooseberry
<i>Rosa</i> spp.	Wild Rose
<i>Rubus parviflorus</i>	Thimbleberry
<i>Rubus</i> spp.	Raspberry
<i>Salix</i> spp.	Willow
<i>Spiraea</i> spp.	Spirea
1 unidentified flower species	(<i>Eriophyllum lanatum</i> not in Lesica 1985)
Miscellaneous grasses	

*All genus and species as listed in: Lesica 1985.

Windy 23 23Jul96 lists **12** vegetation samples (fieldnote pages 96-122 & 124)

Latin Name*	Common Name
<i>Artemisia frigida</i>	Fringed Sagewort
<i>Hordeum jubatum</i>	Foxtail Barley
<i>Penstemon</i> spp.	Purple Penstemon
<i>Phacelia hastata</i>	Silverleaf Phacelia
1 unidentified flower species	(<i>Eriophyllum lanatum</i> not in Lesica 1985)
Note: Species listed above were in most recent deposits on the "walls" of post-deposition incisions; Species on two sets of older deposits are listed below	
<i>Artemisia frigida</i>	Fringed Sagewort
<i>Balsamorhiza sagittata</i>	Arrowleaf Balsamroot
<i>Cerastium arvense</i>	Mouse-eared Chickweed
<i>Penstemon</i> spp.	Purple Penstemon
<i>Phacelia hastata</i>	Silverleaf Phacelia
<i>Ribes</i> spp.	Currant/Gooseberry
1 unidentified flower species	(<i>Eriophyllum lanatum</i> not in Lesica 1985)
Miscellaneous grasses	
Note: Species listed directly above were on the 2 nd most recent deposits, the youngest deposits with XAEL present; The species listed below were on the oldest of the 3 relatively recent deposits	
<i>Artemisia frigida</i>	Fringed Sagewort
<i>Cerastium arvense</i>	Mouse-eared Chickweed
<i>Epilobium latifolium (angustifolium)</i>	Fireweed
<i>Hedysarum sulphurescens</i>	White Vetch
<i>Penstemon</i> spp.	Purple Penstemon
<i>Phacelia hastata</i>	Silverleaf Phacelia
<i>Potentilla</i> spp.	Shrubby cinquefoil
<i>Ribes</i> spp.	Currant/Gooseberry
Miscellaneous grasses	

*All genus and species as listed in: Lesica 1985.