

APPENDIX 4.

Regional level PV classification: list of plant associations found within each regional class.

REGIONAL FOREST CLASS 1,1; n = 18

ABLA/CALEH2	PIEN/CACA4
ABLA/CABI	PIEN/CADI6
ABLA/CACA4	PIEN/CALE4
ABLA/LEGL	PIEN/EQAR
ABLA/LUGLH	TSHE/MEFE
ABLA/MEFE	TSHE/RHAL2
ABLA/RHAL2	TSME/LUGLH
ABLA/RHAL2	TSME/MEFE
LALY-ABLA	TSME/STAM2

REGIONAL FOREST CLASS 1,2; n = 20

ABLA-PIAL/VASC	PIEN/VASC
ABLA/ALVIS	PICO-POTR5/SPDO/CAREX
ABLA/ARLA8	PIEN/GATR3
ABLA/LUGLH	PIEN/LIBO3
ABLA/MEFE	PIAL/VASC
ABLA/PHEM	PICO/VASC
ABLA/VASC	TSME/LUGLH
ABLA/XETE	TSME/MEFE
LALY-ABLA	TSME/PHEM-VADE
LALY/VADE	TSME/XETE

REGIONAL FOREST CLASS 1,3; n = 34

ABGR/VASC	PIAL/CAGE2
ABLA-PIAL/VASC	PIAL/CARO5
ABLA/ARCO9	PIAL/JUCO6
ABLA/CAGE2	PIAL/VASC
ABLA/JUCO6	PICO/ARCO9
ABLA/LUGLH	PICO/FEID
ABLA/PHEM	PICO/VASC
ABLA/RIMO2	PICO/VASC/CAPE6
ABLA/SPBE2	PICO/XETE
ABLA/VACE	PIEN/VASC
ABLA/VAMY2	TSHE/ARNE
ABLA/VASC	TSME/JUPA
ABSH/CAPE6	TSME/LUGLH
ABSH/PENSTEMON	TSME/PHEM
ABSH/VAME	TSME/VAME
LALY-ABLA	TSME/VASC
PIAL-ABLA	TSME/XETE

REGIONAL FOREST CLASS 1,4; n = 31

ABLA-PIAL/ARUV	PIAL/FEID
ABLA-PIAL/VASC	PIAL/JUCO6
ABLA/ARCO9	PIAL/LUGLH
ABLA/CARO5	PIAL/PEGR
ABLA/CARU	PIAL/STCA
ABLA/CLCOC2	PIAL/VASC
ABLA/JUCO6	PICO/ARCO9
ABLA/VASC	PICO/ARNE
LALY/LUGLH	PICO/CAPE6
PIAL	PICO/FEID
PIAL-ABLA	PICO/PUTR2
PIAL-PICO/PELA7	PIEN/ARCO9
PIAL/ARAC	PIEN/HYRE70
PIAL/CAGE2	PIEN/JUCO6
PIAL/CARO5	PIEN/RIMO2
PIAL/CARU	

REGIONAL FOREST CLASS 2,1; n = 28

ABAM/OPHO	PICO/CAREX WETLAND
ABGR/TABR2	PICO-(POTR5)/VAUL
ABGR/POPU3	PIEN/CLUN2
ABGR/SETR	PIEN/COSE16
ABLA/CACA4	PIEN/EQAR
ABLA/GATR3	PIEN/GATR3
ABLA/MEFE	POTR5/COSE16
ABLA/OPHO	POTR15/COSE16
ABLA/STAM2	POTR5/CACA4
ABLA/TRCA	THPL/ATFI
PICEA/CADI6	THPL/OPHO
PICEA/COSE16	TSHE/LIBO3
PICEA/EQAR	TSHE/OPHO
PICEA/GATR3	TSME/STAM2

REGIONAL FOREST CLASS 2,2; n = 80

ABAM/ACCI	PICO/ARUV
ABAM/ACTR	PICO/ELGL
ABAM/CLUN2	PICO/PUTR2
ABAM/GASH	PIEN/CLUN2
ABAM/VAAL	PIEN/GATR3
ABCO-PIPO/CAPE6	PIEN/LIBO3
ABCO/CACH6	PICEA/MAST4
ABGR-PIEN/MAST4	POTR5/AMAL2-SYOR2/BRCA5
ABGR/TABR2	POTR5/AMAL2-SYOR2/CARU
ABGR/ACCI	POTR5/AMAL2-SYOR2/TALL FORB
ABGR/ACTR	POTR5/AMAL2-SYOR2/THFE

ABGR/ASCA2
 ABGR/MANEN
 ABGR/CACH6
 ABGR/CLUN2
 ABGR/COOC
 ABGR/LIBO3
 ABGR/PAMY
 ABGR/SYAL
 ABGR/TRCA3
 ABGR/VACE
 ABGR/VAGL
 ABGR/VAME/CLUN2
 ABLA/ACGL
 ABLA/ACRU2
 ABLA/ALVIS
 ABLA/CLUN2
 ABLA/COCA13
 ABLA/GATR3
 ABLA/LIBO3
 ABLA/OSCH
 ABLA/RIMO2
 ABLA/RHAL2
 ABLA/THOC
 ABLA/TRCA
 ABLA/VACE
 ABLA/VAGL
 PICEA/CLUN2
 PICEA/LIBO3
 PICEA/GATR3

POTR5/CAREX
 POTR5/RUPA
 POTR5/SYAL/ELGL
 POTR5/SYOR2/BRCA5
 POTR5/SYOR2/CARO5
 POTR5/SYOR2/CARU
 POTR5/SYOR2/TALL FORB
 POTR5/SYOR2/THFE
 PSME/OSCH
 PSME/SYAL
 PSME/VACE
 THPL/ACTR
 THPL/ARNU2
 THPL/ASCA2
 THPL/ATFI
 THPL/CLUN2
 THPL/GYDR
 THPL/LIBO3
 THPL/TABR2/ASCA2
 THPL/VAME
 TSHE/ACTR
 TSHE/ARNU2
 TSHE/MANEN
 TSHE/CLUN2
 TSHE/GYDR
 TSHE/RHMA3
 TSHE/RUPE
 TSHE/XETE
 TSME/CLUN2

REGIONAL FOREST CLASS 2,3; n = 79

ABAM-ABCO/MANEN
 ABAM/VAME
 ABAM/XETE
 ABCO-ABSH/CHUM
 ABCO-CADE27-PIPO/AMAL2
 ABCO-PICO/CAPE6-STOC2
 ABCO-PILA-PIPO/ARPA6
 ABCO-PIPO/MARE11
 ABCO-PIPO/RIVI3
 ABCO-PIPO/SYPH
 ABCO/ACGL
 ABCO/AMAL2-COCO6
 ABCO/AMAL2/ANDE3
 ABCO/CACH6
 ABCO/CEVE
 ABCO/MANEN
 ABCO/RUN12
 ABCO/SYAL

ABLA/PHMA5
 ABLA/RIMO2
 ABLA/RULA2
 ABLA/SPBE2
 ABLA/SYAL
 ABLA/VACE
 ABLA/VAGL
 ABLA/VAME
 ABLA/XETE
 ABSH-TSME/ARNE
 ABSH/CACH6
 ABSH/CAPE6
 ABSH/PENSTEMON
 PICEA/VACE
 PICO/CAPE6
 PICO/CARU
 PICO/JUCO6
 PICO/SPBE2

ABCO/SYMO
 ABCO/VAME
 ABGR/ACGL
 ABGR/CARU
 ABGR/COOC2
 ABGR/LIBO32
 ABGR/VACE
 ABGR/VAGL
 ABGR/VAME
 ABGR/XETE
 ABLA/ACGL
 ABLA/ACRU2
 ABLA/ARCO9
 ABLA/CAGE2
 ABLA/CARO5
 ABLA/CARU
 ABLA/CLUN2
 ABLA/COOC
 ABLA/LIBO3
 ABLA/MARE11
 ABLA/OSCH
 ABLA/PERA4

PICO/VACE
 PICO/VAGL
 PICO/VASC
 PIEN/VACE
 PIJE/ARTRV
 PIJE/PUTR2
 PIWA/ARNE
 PIWA/SYLO/PSJA
 POTR5/ARTR2
 POTR5/SYAL/ELGL
 PSME/ARUV
 PSME/LIBO3
 PSME/OSCH
 PSME/VACCI
 PSME/VACE
 PSME/VAGL
 TSHE/ARNE
 TSHE/VAME/LIBO3
 TSHE/XETE
 TSME/RULA2
 TSME/XETE

REGIONAL FOREST CLASS 2,4; n = 30

ABGR/ARNE
 ABGR/CAGE2
 ABLA/ARCO9
 ABLA/CAGE2
 ABLA/CARO5
 ABLA/CARU
 ABLA/SYAL
 ABLA//CLCOC2
 PICEA/SEST3
 PICEA/VACE
 PICO/ARTR2/FEID
 PICO/ARTR2/STOC2
 PICO/CAGE2
 PICO/CARO5
 PICO/CEVE

PICO/FEID
 PICO/PUTR2-RICE
 PICO/PUTR2/CAPE6
 PICO/PUTR2/STOC2
 PICO/STOC2
 POTR5/SASC
 PSME/ARCO9
 PSME/ARNE
 PSME/ARUV
 PSME/ARUV-PUTR2
 PSME/CAGE2
 PSME/CARU
 PSME/HODI
 PSME/SPBE2
 PSME/VACE

REGIONAL FOREST CLASS 3,1; n = 25

ALIN2	PIPO-PSME
ALIN2-BEOC2/(SALIX)	PIPO/COSE16
ALIN2-POTR15/(SALIX)/CAREX	POAN3/COSE16
ALIN2-POTR5/COSE16	POTR15/COSE16
ALIN2/CAREX	POTR5/COSE16
ALIN2/COSE16	POTR5/SYAL
ALIN2/MESIC FORB	POTR5/SYAL/ELGL
ALIN2/MESIC GRAMINOID	PSME/COSE16
ALIN2/SYAL	SABO2-SAGE2
ALRH2-ABGR	SABO2/CARO6
JUSC/COSE16	SAGE2-SALE
PICEA/LYAM3	SAGE2-SARI2
PIEN/COSE16	

REGIONAL FOREST CLASS 3,2; n = 55

ABCO-CADE27-PIPO/AMAL2	POTR5/AMAL2/THFE
ABCO/MANEN	POTR5/CAREX
ABGR/ASCA2	POTR5/OSOC
ABGR/CARU	POTR5/SASC
ABGR/CLUN2	POTR5/SHCA
ABGR/LIBO3	POTR5/SYOR2/CARU
ABGR/PAMY	POTR5/SYOR2/TALL FORB
ABGR/PHMA5	POTR5/SYOR2/THFE
ABGR/SPBE2	POTR5/TALL FORB
ABGR/TABR2	POTR5/THFE
ABLA/ACGL	POTR5/WYAM
ABLA/SPBE2	PSME/ACGL
JUOC/ARAR8/FEID	PSME/ARCO9
JUOC/ARTRV	PSME/LIBO3
JUOS/PSSP6	PSME/OSCH
PICEA/VACE	PSME/PHMA5
PIEN/PHMA5	PSME/SPBE2
PIMO/ARTR2	PSME/SYAL
PIMO/CELE3	PSME/SYOR2
PIPO-QUKE SERIES	PSME/VACE
PIPO/AMAL2-MARE11	PSME/VAGL
PIPO/ARPA6	QUKE
POAN3/ACGR3	THPL/ADPE
POTR15/SAEX	THPL/ASCA2
POTR5/AMAL2-SYOR2/CARU	THPL/CLUN2
POTR5/AMAL2-SYOR2/TALL FORB	TSHE/ASCA2
POTR5/AMAL2-SYOR2/THFE	TSHE/CLUN2
POTR5/AMAL2/TALL FORB	

REGIONAL FOREST CLASS 3,3; n = 83

ABCO-CADE27-PIPO/AMAL2	PIPO-PIJE/MARE11
ABCO-PILA-PIPO/ARPA6	PIPO-PSME/PHMA5
ABCO-PIPO/ARPA6-MANEN	PIPO-PSME/PUTR2
ABCO-PIPO/CEVE	PIPO/CAGE2
ABCO-PIPO/PUTR2	PIPO/CARU
ABCO-PSME/MAPI3	PIPO/ELGL
ABCO/CACH6	PIPO/PHMA5
ABCO/CEVE	PIPO/SYAL
ABCO/CHUM	PIPO/SYOR2
ABCO/MARE11	POTR5/AMAL2/TALL FORB
ABCO/SYAL	POTR5/AMAL2/THFE
ABGR/ACCI	POTR5/BRCA5
ABGR/ACGL	POTR5/CARU
ABGR/CAGE2	POTR5/JUCO6/CAGE2
ABGR/CARU	POTR5/JUCO6/LUAR3
ABGR/CLUN2	POTR5/SHCA
ABGR/MANEN	POTR5/SYOR2/CARU
ABGR/PHMA5	POTR5/SYOR2/THFE
ABGR/SPBE2	POTR5/WYAM
ABGR/SYAL	PSME/ACGL
ABGR/TRLA6	PSME/ARCO9
ABGR/VACE	PSME/ARUV
ABLA/CLCOC2	PSME/CAGE2
ABLA/CLUN2	PSME/CARU
ACGR3/CARU	PSME/CELE3
CADE27-PSME/CACH6	PSME/FEKI2
CUBA	PSME/HODI
JUOS/ARTR2	PSME/JUCO6
PICEA/PHMA5	PSME/LIBO3
PICEA/SEST3	PSME/MARE11
PICEA/VACE	PSME/PHMA5
PICO/CARU	PSME/PHMA5-LIBO3
PICO/FEID	PSME/PSSP6
PICO/PUTR2/FEID	PSME/SPBE2
PIEN/JUCO6	PSME/SYAL
PIEN/PHMA5	PSME/SYMO
PIFL2/JUCO6	PSME/SYOR2
PIFL2/PEFL15/DIST3	PSME/VACE
PIJE-QUKE/POSE	PSME/VAGL
PIJE-QUKE/RHTR	PSME/VASC
PILA-PSME/CACH6	THPL/CLUN2
PIPO-PIJE/FRRU	

REGIONAL FOREST CLASS 3,4, n = 44

ABCO-CADE27-PIPO/AMAL2	PIPO/ASDE6
ABCO/ARPA6	PIPO/CELE3-PUTR2
ABCO/CEVE	PIPO/CEVE-PUTR2
ABGR/HODI	PIPO/FEID
ABLA/JUCO6	PIPO/PSSP6
ABLA/MARE11	PIPO/PUTR2/CAPE6
JUOS/PUTR2-SYOR2/PSSP6	PIPO/PUTR2/ORHY
PIFL2/CELE3	PIPO/SYAL
PIFL2/FEID	POTR5/STCO4
PIFL2/FEKI2	POTR5/TALL FORB
PIFL2/PSSP6	POTR5/WYAM
PIFL2/PUTR2	PSME/ARCO9
PIPO-PIJE-CADE27	PSME/CAGE2
PIPO-PIJE/PUTR2	PSME/CARU
PIPO-PIJE/STCOL	PSME/CELE3
PIPO-PSME/ARPA6	PSME/FEID
PIPO-PSME/PEFR3	PSME/FEKI2
PIPO-PSME/PSSP6	PSME/FEOC
PIPO-PSME/PUTR2	PSME/FESC
PIPO-PSME/PUTR2	PSME/JUCO6
PIPO/ARPA6	PSME/PSSP6
PIPO/ARPA6-PUTR2	PSME/SYOR2

REGIONAL FOREST CLASS 4,1; n = 36

ABGR/CLUN2	PIPO/COSE16
ABLA/CLUN2	PIPO/CRDO2
ACNE2/COSE16	PIPO/PRVI
ACNE2/EQAR	POAN3/ACGR3
ALRH2	POAN3/BOEC2
ALRH2/AMAL2	POAN3/COSE16
ALRH2/BOEC2	POFR2/SAGE2
ALRH2/CELAR	POTR15/CIDO
ALRH2/PHLE4	POTR15/COSE16
ALRH2/SACE3	POTR15/SAEX
BOEC2-POTR15/SALIX	POTR5-ALIN2/BEGL-RIBES/CAREX
BOEC2/COSE16	POTR5/COSE16
BOEC2/CRDO2	SAAM2-SAEX-SALUL
BOEC2/MESICFORB	SAAM2-SAF14-SALUL/CAREX
CRDO2/ROWO	SALUL
CRDO2/SYAL	SARI2/RIAU
JUSC/COSE16	THPL/CLUN2
PIPO-POTR5/CAREX-(POA)	TSHE/MANEN

REGIONAL FOREST CLASS 4,2; n = 36

JUOC-PIPO/PUTR2/(PSSP6)-FEID	PIPO/FESC
JUOC/ARTRV	PIPO/PHMA5
JUOC/CELE3/PSSP6	PIPO/PSSP6
PIPO-QUGA4	PIPO/PUTR2
PIPO-QUGA4/BASA3	PIPO/PUTR2/CAPE6
PIPO-QUGA4/CAGE2	PIPO/PUTR2/FEID
PIPO-QUGA4/CECU	PIPO/PUTR2/ORHY
PIPO-QUGA4/PUTR2	PIPO/PUTR2/PSSP6
PIPO-QUGA4/SYAL	PIPO/SYAL
PIPO-QUKE SERIES	PIPO/SYOR2
PIPO-QUWI SERIES	PIPO/WYMO
PIPO/ARPA6-PUTR2	PSME/FEID
PIPO/ARTR2-PUTR2	PSME/PSSP6
PIPO/ARTR2/STIPA	PSME/SYOR2
PIPO/ARTRV/PONE2	QUGA4/CECU/FEID
PIPO/CELE3	QUGA4/ELGL
PIPO/CEVE-PUTR2	QUGA4/SYAL
PIPO/FEID	QUGA4/TODI-SYAL/ELGL

REGIONAL FOREST CLASS 4,3; n = 40

ACGR3/CARU	PIPO-PSME/PSSP6
JUOC-PIPO/ARTR2/PSSP6-(FEID-STIPA)	PIPO-QUGA4/PUTR2
JUOC/ARAR8/DAUN-POSE	PIPO/ARTRV/PONE2
JUOC/ARAR8/FEID	PIPO/CELE3
JUOC/ARAR8/PSSP6	PIPO/FEID
JUOC/ARRI2/POSE	PIPO/PSSP6
JUOC/ARTR2-PUTR2/PSSP6-FEID	PIPO/PUTR2
JUOC/ARTRV	PIPO/PUTR2/FEID
JUOC/CELE3/PSSP6	PIPO/PUTR2/ORHY
JUOC/FEID	PIPO/PUTR2/PSSP6
JUOC/PSSP6	PIPO/STCO4
JUSC/PSSP6	PSME/ARUV
PIAT SERIES	PSME/CELE3
PIFL2/CELE3	PSME/FEID
PIFL2/FEID	PSME/FESC
PIFL2/FEKI2	PSME/JUCO6
PIFL2/JUCO6	PSME/PSSP6
PIFL2/MARE11	PUTR2/FEID
PIFL2/PSSP6	PUTR2/PSSP6
PIMO-JUOS/ARTR2	QUGA4 SERIES

REGIONAL FOREST CLASS 4,4; N = 40

JUOC-PIPO-QUGA4/CECU/FEID	JUOS/ARTR2
JUOC-PIPO/PUTR2/PSSP6-FEID	JUOS/ARTR2/ORHY
JUOC-QUGA4	JUOS/BARREN
JUOC/ARAR8/DAUN-POSE	JUOS/LEAM
JUOC/ARAR8/FEID	JUOS/PSSP6
JUOC/ARAR8/PSSP6	JUOS/PUTR2-SYOR2/PSSP6
JUOC/ARNO4	JUOS/STCO4
JUOC/ARRI2/POSE	PIMO-JUOS/ARAR8
JUOC/ARTR2/CAFI	PIMO-JUOS/ARTRV/PSSP6
JUOC/ARTR2/FEID	PIMO-JUOS/CELE3/PSSP6
JUOC/ARTR2/PSSP6	PIMO-JUOS/LECI4
JUOC/ARTRV	PIMO-JUOS/PRVI
JUOC/CELE3-SYOR2	PIPO/PSSP6
JUOC/CELE3/CAGE2	PIPO/PUTR2/PSSP6
JUOC/FEID	POTR5/ARTR2
JUOC/POSE-STOC2	POTR5/STCO4
JUOC/PSSP6	PSME/CELE3
JUOS	PSME/FEID
JUOS/ARNO4	PSME/MARE11
JUOS/ARNO4/ROCK	QUDO

REGIONAL SHRUB CLASS 1,1; n = 18

ALVIS	SACO2/CASC12
B EGL-SALIX	SAPL2/CAAQ
B EGL/CARO6	SAPL2/CAAQ-CARO6
KAMI/CASC12	SAPL2/CASC12
KRUMMHOLZ	SARE2/CALE4
PHEM/ANLA3	SAWO/CAAQ
SAAR16/CALE4	SAWO/CARO6
SAAR16/POBI6	SAWO/DECE
SACA4/CARO6	SAWO/SWPE-PEGR2

REGIONAL SHRUB CLASS 1,2; n = 6

ALVIS	SAWO/CAAQ
CAME7-PHEM	SAWO/DECE
PEFL15/DECE	SAWO/MESICFORB

REGIONAL SHRUB CLASS 1,3; n = 9

ARAR8/FEID	CELE3/FEID
ARTR4/FEID	DROC
ARTR2/FESC	DROC/CARU3
ARTRV-SYOR2/FEID	SAAR16/POBI6
ARTRV-SYOR2/PSSP6	

REGIONAL SHRUB CLASS 1,4; n = 2

ERDI
LEPU

REGIONAL SHRUB CLASS 2,1; n = 48

ALIN2	SAEA/CAAQ
ALIN2/COSE16	SAEA/CARO6
ALVIS	SAGE2-SALE
ARCA13/CANE2-POCU3	SAGE2-SARI2
ARCA13/FEID	SAGE2/CAAQ
ARCAV2/DECE	SAGE2/CACA4
B EGL/CARO6	SAGE2/CARO6
COSE16/HELA4	SAGE2/DECE
PEFL15/DECE	SAGE2/MESICFORB
PEFL15/FEID	SAGE2/MESICGRAMINOID
SABE2	SAGE2/POPA2
SABO2-SAGE2	SALA6/BARREN
SABO2-SAGE2/CAAN15	SALA6/ROWO/GRASS-FORB
SABO2-SALE	SALE

SABO2/CAAQ
 SABO2/CACA4
 SABO2/CANE2
 SABO2/CARO6
 SABO2/EQAR
 SABO2/MESICFORB
 SABO2/MESICGRAMINOID
 SACA4/CARO6
 SADR
 SAEA

SALI SERIES
 SAPL2
 SARI2/RIAU
 SAWO/CAAQ
 SAWO/CANE2
 SAWO/CARO6
 SAWO/DECE
 SAWO/MESICFORB
 SAWO/POPA2
 VAOC/CAAQD

REGIONAL SHRUB CLASS 2,2; n = 52

ACGL
 ACGR3/CARU
 ALIN2
 ALVIS
 AMAL2/ARTR2/FEID
 ARAR8-CELE3/PSSP6-POSE
 ARAR8-PUTR2/FEID-PSSP6
 ARAR8/FEID
 ARCA13/FEID
 ARCA13/PASM
 ARCAV2/FEID
 ARPA6/CEVE-CEPR
 ARTR2/FEID
 ARTR2/FESC
 ARTR4/FEID
 ARTR4/FESC
 ARTR4/PSSP6
 ARTRT/FEID
 ARTRV-SYOR2/FEID
 ARTRV-SYOR2/PSSP6
 ARTRV/BRCA5
 ARTRV/CAGE2
 ARTRV/FEID
 ARTRV/LECI4
 ARTRV/PSSP6
 ARTRV/STOC2

ARTRW8-PERA4/FEID
 ARTRW8-PUTR2/PSSP6
 CELE3-SYOR2
 CELE3/CARU
 CELE3/FEID
 CELE3/PRVI
 CELE3/PSSP6
 CELE3/PSSP6-FEID
 CEVE
 CRDO2/ROWO
 CRDO2/SYAL
 PEFL15/DECE
 PEFL15/FEID
 PEFL15/FESC
 PHMA5-SYAL
 PRSU
 PUTR2/FEID
 PUTR2/FESC
 PUTR2/PSSP6
 PUTR2/(PSSP6)-FEID
 ROWO
 SABE2
 SAVE4/DISP
 SAVE4/LECI4
 SAWO/DECE
 SYAL-RONU

REGIONAL SHRUB CLASS 2,3; n = 29

ARAR8/FEID	CECU-CEMOG-PRSU
ARAR8/PSSP6	CELE3/ARTR2
ARPA6 SERIES	CELE3/CAGE2
ARTR2/FEID	CELE3/HODU
ARTR4/PSSP6	CELE3/PSSP6
ARTR4/STCO4	CELE3/PSSP6-FEID
ARTRV-CELE3/ELCA11-POSE	CELE3/SYOR2
ARTRV-SYOR2/BRCA5	HODI
ARTRV-SYOR2/FEID	PUTR2/CAPE6-STOC2
ARTRV-SYOR2/PSSP6	PUTR2/ORHY
ARTRV/CAGE2	PUTR2/PSSP6
ARTRV/PSSP6	PUTR2/STCO4
ARTRV/STOC2	PUTR2/(PSSP6)-FEID
ARTRW8/PSSP6	QUVA
ARTRW8/STTH2	

REGIONAL SHRUB CLASS 2,4; n = 2

ARARL/FEID
ARART/FEID

REGIONAL SHRUB CLASS 3,1; n = 43

ALIN2	SABE2
ALIN2-BEOC2/SALIX	SABO2/CAAQ
ALIN2/COSE16	SABO2/CACA4
ALIN2/MESIC FORB	SABO2/CANE2
ALIN2/MESIC GRAMINOID	SABO2/CARO6
ALIN2/RIHU	SABO2/EQAR
ALVIS	SABO2/MAST4
ARCA13-ARTRV/POCU3	SABO2/MESIC FORB
ARCA13/CANE2-POCU3	SABO2/MESIC GRAMINOID
ARCA13/FEID	SABO2/POPA2
ARCA13/LECI4	SADR
ARCA13/MURI	SAEX/MESIC GRAMINOID
ARCA13/(ELCA11)-PONE3	SAGE2/CACA4
BEOC2	SAGE2/CARO6
BEOC2-POTR15/SALIX	SALA6/BARREN
BEOC2/COSE16	SALA6/ROWO/GRASS-FORB
BEOC2/CRDO2	SALE/LECI4
BEOC2/MESIC FORB	SALU2/CACA4
COSE16	SALU2/CARO6
COSE16/GATR3	SALUL
COSE16/HELA4	SPDO
ROWO	

REGIONAL SHRUB CLASS 3,2; n = 18

ARAR8-PUTR2/PSSP6-FEID	ARTRT/LECI4
ARCA13/MURI	ARTRT/PASM
ARPE6/FEID	ARTRT/PSSP6
ARTR2-PUTR2/ORHY-STCO4	ARTRW8-PUTR2/PSSP6
ARTR2/FEID	CELE3/PSSP6
ARTR2/LECI4	PUTR2/ORHY
ARTR2/PSSP6	PUTR2/PRVI
ARTR2/STCO4	PUTR2/STCO4
ARTRT/FEID	SYOC

REGIONAL SHRUB CLASS 3,3; n = 44

ARAR8/FEID	ARTRW8-PUTR2/PSSP6
ARAR8/LEAM	ARTRW8/LEAM
ARAR8/POSE	ARTRW8/POSE
ARAR8/PSSP6	ARTRW8/PSSP6
ARNO4/FEID	ARTRW8/STCO4
ARNO4/PSSP6	ARTRW8/STTH2
ARPE6/FEID	ARVI4-CECU/FEID-STLE2
ARRI2/POSE	CECU SERIES
ARRI2/PSSP6	CECU/PSSP6
ARTR2 SERIES	CELAR/PSSP6

ARTR2/FEID
 ARTR2/PSSP6
 ARTR2/STCO4
 ARTR4/FEID
 ARTR4/PSSP6
 ARTRT/FEID
 ARTRT/LECI4
 ARTRT/PSSP6
 ARTRV/LECI4
 ARTRV/PSSP6
 ARTRV/STOC2
 ARTRW8-ATCO

CELE3/PSSP6
 CHNA2/LEFL4/PSLA3
 DACA3
 GLNE3/PSSP6
 PSSP6
 PUTR2-CHNA2
 PUTR2/FEID
 PUTR2/ORHY
 PUTR2/PSSP6
 QUBR
 RHGL/PSSP6
 STLE2

REGIONAL SHRUB CLASS 3,4; n = 42

ARAR8/POSE
 ARAR8/PSSP6
 ARNO4
 ARNO4/ELEL5
 ARNO4/HIJA
 ARNO4/LEAM
 ARNO4/ORHY
 ARNO4/POSE
 ARNO4/PSSP6
 ARNO4/STCO4
 ARRI2/POSE
 ARTR2-EPVI
 ARTR2/POSE
 ARTRW8-ATCO
 ARTRW8/POSE
 ARTRW8/STCO4
 ATCA2
 ATCA2-ARTR2
 ATCA2-KRLA2
 ATCA2/HIJA
 ATCA2/ORHY

ATCO/ELEL5
 ATCO/HIJA
 ATCO/LEAM
 ATCO/ORHY
 ATCO/PSSP6
 ERDO-POSE
 ERNI2-POSE
 ERSP7-POSE
 ERT4-POSE
 GRSP-EPVI
 GRSP-PRAN2
 GRSP/ARNO4/STSP3
 GRSP/ARSP5
 GRSP/LYAN
 GRSP/ORHY
 GRSP/POSE
 KRLA2/POSE
 PRSU
 SADO4/PSSP6
 SPAR2-ARFR4-POSE
 SPAR2-ORSW

REGIONAL SHRUB CLASS 4,1; n = 15

BEOC2
 COSE16
 COSE16/HELA4
 CRDO2
 CRDO2/HELA4
 CRDO2/ROWO
 CRDO2/SYAL
 PEFL15/DECE

SAEX
 SAEX/EQAR
 SAEX/MESIC FORB
 SAEX/MESIC GRAMINOID
 SALU2/CACA4
 SALU2/CARO6
 SALUL

REGIONAL SHRUB CLASS 4,2; n = 15

ARCA13/LECI4	SAEX-SALUL
ARCA13/MURI	SAVE4
ARTR2/LECI4	SAVE4/CHNA2
ARTRT/FEID	SAVE4/DIST3
ARTRT/LECI4	SAVE4/LECI4
ARTRT/PSSP6	SAVE4/SUNI
PRVI	SYOC
SAEX	

REGIONAL SHRUB CLASS 4,3; n = 13

ARNO4/ORHY	ATCO/PSSP6
ARNO4/POSE	EROVD
ARNO4/PSSP6	KRLA2/POSE
ATCO-ARSP5-SAVE4	SAVE4
ATCO/ELEL5	SAVE4/CHNA2
ATCO/LEAM	SAVE4/PASM
ATCO/ORHY	

REGIONAL SHRUB CLASS 4,4; n = 28

ALOC2	ATCO/ELEL5
ARAR8/PSSP6	ATCO/KOAM
ARAR8/STTH2	ATCO/ORHY
ATCA2/SPAI	ERMI4-PHOR2
ATCO (II)	ERSW-POSE
ATCO-ARSP5-SAVE4	KRLA2
ATCO-EPNE	KRLA2/POSE
ATCO-KRLA2	PSPOP/ORHY
ATCO-LYSH	SAVE4
ATCO-SAVE4	SAVE4 (DUNE)
ATCO-TEGL	SAVE4/ATCO/ARSP5
ATCO/ARSP5	SAVE4/ELEL5
ATCO/ARSP5/KRLA2	SAVE4/ORHY
ATCO/ARSP5/ORHY	SAVE4/SUNI

REGIONAL HERBLAND CLASS 1,1; n = 12

CABR12	CASI2
CALA11	CASP5
CACA4	CAPS2
CAN12	ELQU2
cASc12	MECI3
CASC12--CALE4	SETR

REGIONAL HERBLAND CLASS 1,2; n = 14

ALPINE RANGELAND	ELGL
CASC10--GERO2	FEID
CASC10--PODI2	FEID--CASC10
cAsc12	FEID-POD12
CAPS2	FEOV
CASP5	NDR-CAREX
DECE--CALE4	MOIST ALPINE TURF

REGIONAL HERBLAND CLASS 1,3; n = 15

ALPINE GRASSLAND	FEID--ERCA8
CABR12	FEOV
CAPU	FEVI
CARUD	GER02
DAIN	IVGO-MIOB2
DRY ALPINE TURF	IVGO--ERCA8
ELGL	NDR-CAREX
FEID	

REGIONAL HERBLAND CLASS 1,4; n = 4

CAEL3--LUAR3	CARUD
cAEL3	GER02

REGIONAL HERBLAND CLASS 2,1; n = 33

AGEX--AGSC5	CASI2
AGST2	DECE
CAAP3	DECE--CALE4
CAAQ	DECE-CAREX
CABR12	ELPA3
CABU6	ELQU2
CACA4	EQFL
CACU	FEID--CASC10
CALA11	GLBO

CALA30
CALE4
CAL17
CAM17
CANE2
CAN12
CAR06
cASc12

JUBA
JUBA-CAR05
NULUP
POCU3
SCAC
SCCE2-CALI
SETR'

REGIONAL **HERBLAND** CLASS **2,2; n = 20**

CAH05-FEVI	FEOV
DECE	FEVI
DECE-CAREX	FEW-FEID
ELGL	FEVI-LUARL5
FEID	MECI3
FEID - CA	POCU3
FEID-DECE	PONE3
FEID-ELTR7	POPA2
FEID-STR12	PSSP6-FEID (PALOUSE)
FEID-SYAL	SETR

REGIONAL **HERBLAND** CLASS **2,3; n = 17**

CAH05-FEID	RONU/FEID
FEID-CAFI	FEID-SIR12
FEID-ELTR7	FEID-SYAL
FEID-ERHE2	FESC-FEID
FEID-HICY	FESC-PSSP6
FEID-KOMA	MESIC FORB
FEID-FEK12	PSSP6-BASA3-POSE
FEID-PSSP6	PSSP6-ERHE2
PSSP6-FEID (PALOUSE)	

REGIONAL **HERBLAND** CLASS **2,4; n = 4**

FEK12	FEK12-PHPU5
FEK12-CAEL3	FEK12-POCU3

REGIONAL HERBLAND CLASS 3,1; n = 19

CAAP3	ELQU2
CALA30	EQFL
CAMI7	GLBO
CANE2	JUBA
CAPR5-CAAQ	PHAR
CAR06	PHAU7
CASI2	POCU3
DECE	POPA2
DECE-CAREX	SCAC
ELPA3	

REGIONAL HERBLAND CLASS 3,2; n = 7

CADO2	PASM
FEID-KOMA	PONE3
JUBA	PONE3-PULE-ELEL5
LETR5-CAREX	

REGIONAL HERBLAND CLASS 3,3; N= 11

CADO2	PSSP6-FEID (PALOUSE)
FEID-PSSP6	PSSP6-FEID (CANYON)
FESC-PSSP6	PSSP6-PASM
LEFL4	PSSP6-POSE
PSSP6	PSSP6-STCO4
PSSP6-BASA3-POSE	

REGIONAL HERBLAND CLASS 3,4; n = 20

ARLO3-POSE	PSSP6-ARLO3-SPCR
(BASE2)-POSE	PSSP6-BASA3-POSE
CAST40-POSE	PSSP6-BOGR2
DAUN-POSE	PSSP6-ERHE2
ERCO12-POSE	PSSP6-OPPO-(POSE)
ERMI4-PHOR2	PSSP6-POSE
ERST4-POSE	PSSP6-POSE (LITHOSOL)
LEAM-LUAR3	STCO4-BOGR2
LOCO4-POSE	STCO4-POSE
POSE CA	STTH2

REGIONAL HERBLAND CLASS 4,1; n = 12

ELPA3	SCMA
ELPA3-JUBA	SCPU3
PHAR	SCVA
PHAU7	TYLA
S C A C	TYDO
SCAM2	VERNAL POOLS

REGIONAL HERBLAND CLASS 4,2; n = 9

DECE-CAREX	JUBA
DISP-(SCNE)	PASM
ELPA3-DISP	POCU3
LECI4	SPPE
LETR5-POSE	

REGIONAL HERBLAND CLASS 4,3; n = 14

ARLO3-POSE	LETR5-POSE
ARLO3-SPCR	NAPU
DISP	ORHY SERIES
DISP-(SCNE)	PONE3-PULE-ELEL5
JUBA-DISP	PSSP6
LECI4	SPAI-DIST3
LECI4 (BOTTOMLANDS)	SUMO

REGIONAL HERBLAND CLASS 4,4; n = 2

LEAM-ENNU
ORHY SERIES

APPENDIX 5. Descriptions of the regional level Potential Vegetation classes of the Columbia River Basin. Nomenclature for species names follows **Kartesz (1994)**.-

FORESTS

COLD, WET FORESTS (CLASS 1,1)

This class contains the coldest and wettest forests, high subalpine sites where snow loads are extreme and prevailing winds redistribute much of it to reinforce slope aspect contrasts. Owing to strong gradients of decreasing precipitation west to east precipitation redistribution (accumulations on northeast- to east-facing slopes) is a much more important factor in the eastern Columbia River Basin (CRB). A corollary pattern is the decrease in importance of *Tsuga mertensiana* and *Tsuga heterophylla* west to east. The dominant series are *Abies lasiocarpa*, *Picea engelmannii*, *Tsuga mertensiana* and to a much lesser degree *Tsuga heterophylla*. Stands of *Larix lyallii* are associated with cirque-basins. Stand structure tends to be quite open and at highest elevations stands exist as islands surrounded by shrub or herbaceous communities. With the exception of *Pinus contorta* these environments exceed the cold limits and soil saturation tolerance of the common seral tree species. No one undergrowth lifeform is characteristic with graminoids (*Calamagrostis canadensis*, *Carex disperma*) forbs (*Streptopus amplexifolius*, *Caltha leptosepala*, *Equisetum arvense*) and shrubs (*Menziesia ferruginea*, *Rhododendron albiflorum*, *Ledum glandulosum*) functioning as both diagnostic and dominant species. Plant associations named by the above-cited species constitute more than 90% of the area within this class. Of the mountain-containing sections this class is absent from only the hot dry Lahontan Basin and Northwestern Basin & Range sections.

COLD, MOIST FORESTS (CLASS 1,2)

Environments include the highest of the subalpine zone, as cold as Class 1,1 but with less effective precipitation. Snowload may be appreciable as evidenced by the abundance of associations characterized by *Luzula glabrata* var. *hitchcockii* or its ecological analogue *Phyllodoce empetriformis*. The dominant series are *Abies lasiocarpa*, *Picea engelmannii* and *Tsuga mertensiana*. Stands in which *Larix lyallii* is a monospecific dominant or is combined with *A. lasiocarpa* or *Pinus albicaulis* characterize cirque-basins and north- and east-facing headwalls. *P. albicaulis*, *Pinus contorta* and *Larix occidentalis* are tree species that, in addition to those species dominating long-term stable states, are important components of seral stages. Stand structure is generally open with non-interlocking canopies and as little as 30% canopy cover. The undergrowth is both dominated and ecologically characterized by a variety of lifeforms; graminoids (*Luzula glabrata* var. *hitchcockii*), forbs (*Xerophyllum tenax*, *Clintonia uniflora*, *Galium triflorum*), dwarf shrubs (*Phyllodoce empetriformis*, *Vaccinium scoparium*) and larger shrubs (*V. deliciosum*, *V. globulare*, *V. membranaceum*) to tall shrubs (*Menziesia ferruginea* and *Alnus viridis* ssp. *sinuata*). The most widespread associations are *A. lasiocarpa*/*V. scoparium* (cold phases thereof) and *A. lasiocarpa*-*P. albicaulis*/*V. scoparium* (both c.ts. considered members of drier classes north and west of the Yellowstone country), *A. lasiocarpa*/*X. tenax*, *A. lasiocarpa*/*Vaccinium* species and cold phases of *A. lasiocarpa*/*C. uniflora* (in the Northern Rockies only). This class is not represented in the hot dry Lahontan Basin and Northwestern Basin & Range sections.

COLD, DRY FORESTS (CLASS 1,3)

Highest. subalpine forests of relatively exposed positions, often upper slopes to ridgetops, or dry climatic regimes and characterized by structure that tends to be open, ranging to as little as 30% canopy cover. *Abies lasiocarpa*, *Picea engelmannii*, *Pinus contorta*, *Pinus albicaulis* and *A. lasiocarpa*-*P. albicaulis* are the dominant series with lesser extents of *Tsuga mertensiana*. *P. contorta* and *P. albicaulis* are the dominant seral species. Tall and mid-sized shrubs are notably sparse in this environment; the predominant lifeform across all sections is dwarf or low shrubs, most specifically *Vaccinium scoparium*, but including *V. cespitosum*, *Ribes montigenum*, *Juniperus communis* and the mid-sized *V. membranaceum*. Important or indicator status forbs and graminoids include *Arnica cordifolia*, *Polemonium pulcherrimum*, *Carex geyeri*, *Calamagrostis*

rubescens, and *Luzula glabrata* var. *hitchcockii*. It is in these drier environments that considerable differentiation is seen among sections as to what associations or ecological species assemblages are represented in this class. The associations with the greatest geographical amplitude and areal extent are *A. lasiocarpa*/*V. scoparium* and *A. lasiocarpa*-*P. albicaulis*/*V. scoparium* (or successional variant *P. contorta*/*V. scoparium*). In the drier ranges, especially those dominated by calcarous substrates, *A. lasiocarpa*/*V. scoparium* is supplanted by *A. lasiocarpa*/*R. montigenum*, *I. communis*, *I. cordifolia*, *C. rubescens* and *C. geeyeri* or *P. engelmannii*-dominated types.

COLD, VERY DRY FORESTS (CLASS 1,4)

These coldest, driest (most **xeric**) of forested environments are generally found on west- to south-facing slopes (often wind-impacted) supporting stands with very open canopy structure. The *Abies lasiocarpa* and *Picea engelmannii* series are at the very extremes of their distribution and *Tsuga mertensiana* is lacking; *Pinus albicaulis* and *Pinus contorta* are the major species of both seral and long-term stable stands. Sites are generally above the cold limits of *Pseudotsuga menziesii* and other seral conifers. Undergrowth dominants and indicator species are virtually restricted to herbs and dwarf shrubs. *A. lasiocarpa*/, *P. engelmannii* and *P. contorta*/*Arnica cordifolia* are variations on an extensive type that occurs through the Wind River section ranging north and west to the Beaverhead Mountains section and northward mostly east of Continental Divide. The very driest sites are dominated by *P. albicaulis* and various graminoids, such as *Carex rossii*, *Festuca idahoensis* and *Carex geeyeri*; in drier ranges east of Continental Divide it is common, especially on calcareous parent materials, for the *P. engelmannii* series to dominate, with *Juniperus communis*, *Hypnum revolutum* and *Clematis* sp. as indicators. This class is apparently lacking in the warmer ranges of the Lahontan Basin and Northwestern Basin and Range sections.

COOL, WET FORESTS (CLASS 2,1)

This class represents the wettest forest environments of the subalpine zone, exclusive of the upper elevation sites. Whereas the forest class 1.1 largely represents non-riparian situations because the locations are at or above stream order 1 locations or stream gradients are too steep to support riparian fringe, many of the sites associated with this class are riparian; most of the rest are associated with seeps or subirrigated positions (toeslopes) or snowload sites. Across the entire CRB, *Abies lasiocarpa* and *Picea engelmannii* are the dominant series with regional differences recognized by the importance of *Abies amabilis*, *Tsuga heterophylla* and *Thuja plicata* in the Eastern Cascades, but of these three only *T. plicata* is included in this environment in the Okanogan Highlands, Flathead Valley and Northern Rockies sections. Locally *Abies grandis*, *Tsuga mertensiana* and *Populus tremuloides* may dominate stands. Stand structure is often multiple-aged with well separated canopies. Dominant and diagnostic undergrowth composition varies widely, from ferns and fern allies (*Equisetum arvense*, *Athyrium filix-femina*, *Gymnocarpium dryopteris*) to forbs (*Senecio triangularis*, *Streptopus amplexifolius*). Especially common are sites dominated by the tall shrubs *Oplopanax horridum*, *Cornus sericea*, *Menziesia ferruginea*, and *Alnus viridis* ssp. *sinuata*. The only community type extending west to east across the CRB (excluding the southernmost portion) is *P. engelmannii* *E. arvense*. Other types common across several sections are *A. lasiocarpa*/*S. amplexifolius*, *T. plicata*/*O. horridum* and *I. filix-femina*, *A. grandis*/*S. triangularis* and *P. engelmannii*/*C. sericea*. The Lahontan Basin and Northwestern Basin and Range sections have no cited occurrences of this class.

COOL, MOIST FORESTS (CLASS 2,2)

This class incorporates the highest productivity sites within the subalpine zone, where moisture is usually not limiting (at least in western portion of CRB) and the more moderate nature of this environment is reflected in higher species diversity and closed canopy structure. The greatest number of forest series are represented in this class, including *Abies amabilis* and *Abies concolor*,

confined to the Eastern Cascade section; *Abies grandis*, exclusively west of the Continental Divide; *Abies lasiocarpa* and *Picea engelmannii*, both virtually ubiquitous; while *Tsuga mertensiana*, *Tsuga heterophylla*, and *Thuja plicata* are important from the Cascades to the northern portion of the west slopes of the Rocky Mountain Front Range. *Populus tremuloides* (mostly east of Continental Divide) and *Pinus contorta* occur almost exclusively as seral community types. The full range of seral tree species (*Pseudotsuga menziesii*, *Pinus monticola*, *Larix occidentalis*, *Pinus contorta*, and *Pinus albicaulis*) occurs here, at least from the Eastern Cascades east to the west slope of Northern Rockies and south to the northern portion of the Idaho Batholith Section; *Pinus ponderosa* is a notably minor component. A great variety of undergrowth species are both dominant and used as indicators. Among the most notable for denoting plant associations of large acreages in the northcentral portion of the CRB are *Clintonia uniflora*, *Linnaea borealis*, *Asarum caudatum* and *Actaea rubra*; additional important indicators in the Eastern Cascades section are *Achlys triphylla*, *Acer circinatum* and *Mahonia nervosa* var. *nervosa*. In the southern portion of the CRB (Lahontan Basin and Owyhee Uplands sections), *P. tremuloides* dominated types with *Symphoricarpos* sp. characterize this class with the Owyhee Uplands also supporting *A. grandis* and moist *P. menziesii* types.

COOL, DRY FORESTS (CLASS 2,3)

This class characterizes relatively warm and dry subalpine sites with a distinct break from class 2,2. Moist site indicators, many of them forbs, are largely lacking. Additionally, the number of forest series represented is reduced and the *Pseudotsuga menziesii* series is present, indicating drier sites. The major series are *Abies lasiocarpa*, *A. grandis*, *A. amabilis* (East Cascades only), *Tsuga mertensiana* and *Pinus contorta* (seral only). Major seral tree species are *P. contorta*, *P. meruiesii*, *Larix occidentalis*, *P. albicaulis*; *P. ponderosa* may be a seral component on the warmest of these sites. Stand structure is generally closed with overlapping canopies. Some of the more broadly distributed plant associations are *A. lasiocarpa/Vaccinium globulare* or *V. membranaceum*, *Xerophyllum tenax*, *IV. cespitosum*, *Calamagrostis rubescens*, *P. menziesii/Linnaea borealis*, *V. cespitosum*, *V. globulare*, and *Abies grandis/X. tenax* (or *V. membranaceum*). The Lahontan Basin section manifests its distinctive environment by contributing *Populus tremuloides/Artemisia tridentata* to this class.

COOL, VERY DRY FORESTS (CLASS 2,4)

This driest-warmest of subalpine environments is represented in only seven sections with no discernable pattern to the distribution. Both the wettest sections (East Cascades and Okanogan Highlands) and driest (the Beaverhead Mountains and Wind River sections), support examples of this class. These sites are basically the driest capable of supporting the *Abies lasiocarpa* or *Picea engelmannii* series and the coldest supporting the *Pseudotsuga meruiesii* series (though *P. menziesii* is generally not considered a subalpine zone climax dominant). *Pinus contorta* is apparently a long-persisting dominant in the East Cascades (on the extensive Mazama ash soils) and Wind River sections and is also a common seral species throughout the rest of this class's representation in the CRB. *Pinus albicaulis* and *P. meruiesii* are also common subalpine woodland dominants, but sites are beyond the cold limits of *Pinus ponderosa*. Stands are mostly open but some associations, e.g. *A. lasiocarpa/Arnica cordifolia*, tend to be predominantly closed. Common and diagnostic undergrowth species include *A. cordifolia*, *Calamagrostis rubescens*, *Carex geyeri*, *Spiraea betulifolia*, *Arctostaphylos uva-ursi*, *Symphoricarpos albus* or *S. oreophilus*. On calcareous substrates *Senecio streptanthifolius* and *Clematis tenuiloba* or *C. pseudoalpina* are important. Associations with the greatest area are perhaps *P. menziesii/S. betulifolia* and *A. lasiocarpa/A. cordifolia*.

WARM, WET FORESTS (CLASS 3,1)

This class contains the mid-montane riparian **forests**, typically with tall shrub-dominated understories. *Populus trichocarpa* occurs throughout the **CRB** in this class. It is joined or replaced by *Populus angustifolia*, *Populus tremuloides*, *Alnus rhombifolia* or *Alnus incana*, *Salix boothii* or *Salix geyeriana* within the Basin. In the southern regions, *A. incana* is the major riparian tree species. *Pseudotsuga menziesii* is the most common conifer in this riparian forest and usually appears with the hardwoods listed above. *Cornus sericea* and *Crataegus douglasii* form tall shrub thickets under the tree canopy. *Picea engelmannii* or *Pinus contorta* also appear in this environment. Understories are characterized by **sedges** (*Carex aquatilis*, *C. lanuginosa*, *C. lasiocarpa*, *C. eurycarpa*), moist grasses and forbs.

WARM, MOIST FORESTS (CLASS 3,2)

Forests occurring here are mid-montane on mild, moist sites. Associations in this class have the highest productivity in this temperature regime. In the northern regions, forests that reflect a maritime climatic influence occupy this class, for example most associations in *Abies grandis* and *Thuja plicata* series. As the maritime influence diminishes southward, the *Pseudotsuga menziesii*/*Acer glabrum* and *Pseudotsuga menziesii*/*Linnaea borealis* associations become the representative types for the class. Most *Populus tremuloides* associations within this temperature regime appear in this class. *Abies concolor* and *Calocedrus decurrens* associations occupy this class in the Southern Cascades section. This environment is represented in all sections except the High Lava Plains, Lahontan Basin, Yellowstone Highlands, and Wind River sections.

WARM, DRY FORESTS (CLASS 3,3)

These are mid-montane forests occurring in warm, moist conditions. The *Pseudotsuga menziesii*/*Physocarpus malvaceus* association typifies this class throughout the Rocky Mountains. *Abies grandis*/*P. malvaceus*, *Pinus ponderosa*/*P. malvaceus*, *P. menziesii*/*Calamagrostis rubescens* and *Abies grandis*/*C. rubescens* associations also represent this class. *Abies concolor* associations with *Ceanothus velutinus* and *Arctostaphylos patula* understories represent this class in the southern part of the Eastern Cascades section. Forests in the Southern 'Cascades section are represented by *Pinus ponderosa*-*Pinus jeffreyi*/*Mahonia repens*, *A. concolor*-*Pinus monticola*-*P. ponderosa*, and *P. jeffreyi*-*Quercus kelloggii* associations. This is a major environment across the area, absent only in the non-forested High Lava Plains and Lahontan Basin sections.

WARM, VERY DRY FORESTS (CLASS 3,4)

Warm, very dry conditions within the entire **CRB** are the typical features of this class. The forests are mid-montane. This class represents cooler environments where *Pinus ponderosa* is a minor part of the forests and where *Pseudotsuga menziesii* is found at lower treeline (see class 4,3). Bunchgrasses, *Juniperus communis* or *Cercocarpus ledifolius* form associations with *P. menziesii* in the eastern sections of the **CRB**. *Pinus flexilis* is part of these open forests in the Beaverhead Mountains, Challis Volcanics, Overthrust Mountains, and Belt Mountains sections. In mild climatic regions, this class is transitional to lower treeline forests dominated by *P. ponderosa*. *P. ponderosa* and *Pinus jeffreyi* with *Ceanothus velutinus* represent this class in the Southern Cascades section. This environment is expressed in all sections except the High Lava Plains, Blue Mountains, Northern Rockies, Bitterroot Valley, Idaho Batholith, Yellowstone Highlands, Owyhee Uplands, Northwestern Basin and Range, and Lahontan Basin sections.

HOT, WET FORESTS (CLASS 4,1)

Lower montane riparian forests in hot environments represent this class. *Betula occidentalis*, *Populus fremontii*, *Alnus rhombifolia* and *Salix amygdaloides* are common hardwoods in this environment. *Pinus ponderosa* and *Pseudotsuga menziesii* may occur in these forests with tall shrubs. In the Southern Cascades section, *Tsuga heterophylla* and *Alnus rubra* riparian forests occur.

HOT, MOIST FORESTS (CLASS 4,2)

Only the Eastern and Southern Cascades, Okanogan Highlands, High Lava Plains, and the Owyhee Uplands sections are represented by this class. These warm, moist montane forests or woodlands are found at lower **treeline in the** northern Cascades. *Pinus ponderosa*, *Quercus garryana*, and *Pinus jeffreyi* with *Purshia tridentata* typify this class. In the Owyhee Uplands, *Pseudotsuga menziesii* and *Pinus ponderosa* with bunchgrasses or *Symphoricarpos albus* and *S. oreophilus* occupy this class. *Juniperus occidentalis*-*P. ponderosa* with *P. tridentata* or *Artemisia tridentata* fill this class in the High Lava Plains. This is almost always a lower **treeline** environment. *J. occidentalis* woodlands usually appear when **treeline** exists below this environment.

HOT, DRY FORESTS (CLASS 4,3)

These hot, dry environments are found at lower treeline, and typically support open canopy forests or woodlands. The conifers *Pseudotsuga menziesii*, *Pinus flexilis*, *Pinus ponderosa*, and *Juniperus scopulorum* are found, with bunchgrasses or *Purshia tridentata* in the understories. These typically occur in warmer environments at lower elevations than class 3.3. Similar associations which are found in class 3.4 are responding along a moisture gradient transitional to class 4,3 rather than a temperature gradient. These open forests with bunchgrasses are found primarily in the Rocky Mountains south of the maritime climatic influence. The Southern Cascade section is typified by *J. occidentalis* and dry *P. ponderosa*/*P. tridentata* woodlands. *Acer grandidentatum* associations appear in the eastern portion of the Northwestern Basin and Range section. This class is found in all sections except the Lahontan Basin, Modoc Plateau, Owyhee Uplands, Wind River, Over-thrust Mountains, Beaverhead Mountains, Challis Volcanics, Bitterroot Mountains, Northern Rockies, Flathead Valley, and Okanogan Highlands.

HOT, VERY DRY FORESTS (CLASS 4,4)

These are the driest and hottest environments supporting trees in the CRB. These woodlands are found **only in the** southern regions of the CRB. *Juniperus occidentalis* or *J. osteosperma* woodlands typify these environments. The *Pseudotsuga menziesii*/*Cercocarpus ledifolius* association appears with *Juniperus osteosperma* in the Owyhee Uplands. *Artemisia tridentata*, *A. arbuscula*, *A. nova*, and *A. rigida* are common understory associates. *Quercus douglasii* woodlands, as well as *Q. garryana* mixed with *J. occidentalis* and *Pinus ponderosa*, are found in the Southern Cascades and Modoc Plateau sections.

SHRUBLANDS

COLD, WET SHRUBLANDS (CLASS 1,1)

Alpine and high-subalpine wetland communities are included in this class, many extending to relatively low elevations in the subalpine zone in frost pockets. *The Salix wolfii*, *S. planifolia*, and *Kalmia microphylla* series best characterize this bioenvironment, each represented by many associations found throughout the assessment area. Other associations include those in the *Salix commutata* series, as well as the highest elevation *Vaccinium occidentale* and *Betula glandulosa* associations.

COLD, MOIST SHRUBLANDS (CLASS 1,2)

Two types of vegetation, low willows (*Salix arctica* and *S. nivalis*) and heathers (*Cassiope mertensiana* and *Phyllodoce empetriformis*), define this class. Species codominant with the low willows include *Potentilla diversifolia* and *Caltha leptosepala*. *Antennaria lanata* and *Potentilla diversifolia* are codominant with *Phyllodoce empetriformis*. This bioenvironment largely represents snowbed communities of sections occurring in the northern Rocky Mountains and Okanogan Highlands.

COLD, DRY SHRUBLANDS (CLASS 1,3)

The bioenvironment represented by this class occurs only in the eastern half of the assessment area, in sections that have carbonate geologic substrates. While the dry, *Salix nivalis* type occurs in this class, it is largely characterized by the *Dryas octopetala* series, with the *D. octopetala* and *D. octopetala-Carex rupestris* associations.

COLD, VERY DRY SHRUBLANDS (CLASS 1,4)

This class only occurs in the alpine zone of the Warner Mountains of the Modoc Plateau Section. The extremely dry types represented here include *Ericameria discoidea* and *Leptodactylon pungens*.

COOL, WET SHRUBLANDS (CLASS 2,1)

This class represents the cool, montane, riparian and wetlands habitats, found in primarily in the northern portions of the CRB, but also in the isolated mountain ranges in the northern Great Basin. These are widely distributed but usually found in narrow corridors along montane rivers and streams, or in patches in some of the higher valleys, generally within a coniferous forested landscape. They are highly productive, with deep alluvial soils. The class is largely characterized by tall *Salix* and *Alnus incana* habitats, the most important of which are *S. boothii*, *S. geyeriana*, *S. lemmonii*, *S. drummondiana*, and *S. wolfii* riparian shrublands with *Carex* species, *Deschampsia cespitosa*, and moist forbs dominating the understory or patches between the large shrubs. It also includes minor parts of four other series: *Alnus viridis* ssp. *sinuata* slopes, mountain *Artemisia cana* flats with *D. cespitosa* or *Poa cusickii* understories, and cold, peat-forming wetland shrublands with *Betula glandulosa* or *Vaccinium uliginosum* communities.

COOL, MOIST SHRUBLANDS (CLASS 2,2)

Relatively moist shrublands and montane steppe types define this class. The vegetation is characterized by *Cercocarpus ledifolius* stands, *Artemisia tridentata* ssp. *vaseyana* steppe, cool *Purshia tridentata* habitats, montane *Artemisia cana* playas, and high elevation *Artemisia arbuscula* communities. It also includes shrub types dominated by *Prunus subcordata*, non-riparian *Crataegus douglasii*, *Ceanothus velutinus*, *Arctostaphylos patula*, *Pentaphylloides floribunda*, *Symphoricarpos* sp., and *Peraphyllum ramosissimum*. This productive and fairly

resilient class can be found as an important type in all areas in the CRB, on all aspects, slopes and soil types. At low elevations, generally these are on north slopes and deep soils, while at higher elevations they are widely distributed on various aspects and soils. *Festuca idahoensis* dominates the understory of most of **the types**, although *Festuca scabrella*, *Carex geyeri*, *Leymus cinereus*, and *Bromus vulgaris* can be locally important.

COOL, DRY SHRUBLANDS (CLASS 2,3)

This is a minor, but extremely diverse class. It contains the cool, drier shrublands which are: the dry *Purshia tridentata* communities; both *Cercocarpus montanus* var. *glaber* and *C. ledifolius* stands; cool, *Artemisia tripartita* steppe; dry *Artemisia tridentata* ssp. *vaseyana* steppe; cool, *Artemisia arbuscula* flats; and chaparral communities dominated by *Quercus vaccinifolia*, *Arctostaphylos patula*, *Holodiscus discolor* and *Prunus subcordata*. They are widely distributed in the CRB, although are much more common in the southern sections. The understory is usually characterized by *Pseudoroegneria spicata*, but *Stipa comata*, *Oryzopsis hymenoides*, *Festuca idahoensis*, *S. columbiana*, *S. occidentalis* and *S. lemmonii* can be important.

COOL, VERY DRY SHRUBLANDS (CLASS 2,4)

This is very minor, cool, dry sagebrush steppe class. It includes only two associations. One is **the** *Artemisia arbuscula* ssp. *thermopolal* *Festuca idahoensis* plant association from the Yellowstone Highlands, Beaverhead Mountains and Challis Volcanics sections in the east central portion of **the CRB**. The second is **the** *Artemisia arbuscula* ssp. *longiloba*/*Festuca idahoensis* association from the southeastern sections, in eastern Idaho and adjacent Utah.

WARM, WET SHRUBLANDS (CLASS 3.1)

This class ranges from warm, wet shrublands to mid-montane riparian habitats. It occurs on flats in valley bottoms and canyons with deep soils throughout the CRB. As with most riparian and wetland communities, these are found as fairly small, linear patches in the overall landscape. **They are** characterized by *Alnus incana*, *Cornus sericea* and some *Salix* riparian community types. The willow types include most *S. rigida* and *S. lucida* ssp. *lasiandra* associations, as well as the lower elevation, warmer *S. boothii*, *S. lemmonii*, and *S. drummondiana* associations. The understory of these riparian types are characterized by moist forbs, sedges and grasses such as *Aconitum columbianum*, *Urtica dioica*, *Carex nebrascensis*, *Carex rostrata*, *Deschampsia cespitosa* and *Equisetum arvense*. Some wetland shrublands with *Pentaphylloides floribunda* and *Spiraea douglasii* are included within this class. Also included **are the** warmer *Artemisia cana* **playas**, which have understories dominated by *Poa nevadensis*.

WARM, MOIST SHRUBLANDS (CLASS 3,2)

The warm, productive steppe shrublands, generally found on deep soils, define this group of habitats. The class contains a diverse group of associations. They occur on deep loess, alluvial or sandy soils, generally on gentle slopes and flats. In the Palouse Prairie section the class includes **the moist**, low shrublands dominated by *Symphoricarpos albus*, *Rosa nutkana* and *Festuca idahoensis*. A minor but locally important **type from this** class is **the** *Artemisia tripartita* steppe, with *F. idahoensis*, *Stipa comata*, *Leymus cinereus* or *Oryzopsis hymenoides* understories. Also included here **are** *A. tridentata* ssp. *wyomingensis*-*Purshia tridentata* and warm *P. tridentata* communities, with **an** *O. hymenoides*, *S. comata*, *S. columbiana*, *Pseudoroegneria spicata* or rarely a *F. idahoensis* understory. Finally, the class includes **the** cooler examples of *A. tridentata* ssp. *tridentata* steppe, **those** with *S. columbiana*, *F. idahoensis*, *Pascopyrum smithii* or *P. spicata* understories.

WARM, DRY SHRUBLANDS (CLASS 3.31)

The warmer, drier and more typical sagebrush steppe types are included within this class. It is one of the most important classes, widely distributed on all slopes, aspects and soil types, although it generally only dominates the landscape in the southern sections of the CRB. It includes the most productive *Artemisia nova* and *A. rigida* flats (not all that productive). These occur on basalt with widely spaced shrubs and *Pseudoroegneria spicata* or *Festuca idahoensis* in the understory. The class has the drier *Artemisia tridentata* ssp. *wyomingensis* steppe, generally found on rocky- or sandy-soiled slopes with *P. spicata*, *Stipa thurberiana* or *S. comata* as the understory dominants. Also present are the driest *Cercocarpus ledifolius* and *Purshia tridentata* communities, usually found at higher elevations on steep, rocky slopes with *P. spicata* in the understory. Also included are some low elevation, tall shrub types including *Glossopetalon nevadense*, *Celtis laevigata* var. *reticulata* (sometimes considered a tree), and *Rhus glabra*. The understory of these is dominated by warmer grasses, primarily *P. spicata*. Finally, the class also contains some warm chaparral associations, characterized by *Ceanothus cuneatus*, *Arctostaphylos viscida* and *Quercus breweri*. These chaparrals are often closed shrublands, but sometimes have *Stipa columbiana*, *S. iemmonii*, *Festuca idahoensis*, *Danthonia californica* or *P. spicata* as important associates.

WARM, VERY DRY SHRUBLANDS (CLASS 3.4)

This class includes the hottest, driest sagebrush steppe vegetation in the CRB, along with the cooler, salt desert shrub types. The sagebrush steppe parts of the class include scablands and shallow soiled flats, with widely spaced low shrubs and up to 60% cover of exposed basalt or rhyolite. Dominant shrubs include *Artemisia rigida*, *A. arbuscula*, *A. nova*, *A. frigida* and *A. tridentata* ssp. *wyomingensis*. Also included here are the *Erigeron*-dominated scablands, with *E. douglasii*, *E. niveum*, *E. spherocephalum*, and *E. thymoides* associations. The grasses here are characterized by *Poa secunda* or *Elymus elymoides*, although *Stipa comata* and *Pseudoroegneria spicata* can be locally important. The salt desert shrub types in this class occur on flats to steep slopes of all aspects, but generally are found only in the southern portions of the CRB, in Nevada, southeastern Oregon and southwestern Idaho. These are mid-sized to low shrubs, also widely spaced, usually on flat to gentle alkaline or barren ash slopes, but occasionally on steep rimrock or talus cliffs. *Atriplex canescens* and *Grayia spinosa* are the most important series, but the class includes *Ephedra* sp., *Sphaeromeria argentea* and *Salvia dorii* associations as well. The understory is generally characterized by bare ground, but *P. spicata*, *E. efymoides*, *P. secunda*, *Oryzopsis swalennii* provide much of the biomass and productivity.

HOT, WET SHRUBLANDS (CLASS 4.1)

These are the warm, wet riparian and bottomland habitats, invariably flat and deep-soiled. They occur along valley bottom and streams, and are characterized by tall shrubs which occasionally form an almost closed canopy. They generally occur as narrow corridors, forming conspicuous stands only in the larger valleys. The most important species is *Salix exigua*, which dominates most of the plant communities from this class. 'Car-ices, *Juncus* sp., *Equisetum* sp., *Rosa woodsii*, mesic forbs (*Heracleum lanatum* and *Hydrophyllum* sp.), and grasses (Primarily *Leymus cinereus* but also including *Elymus caninus* and *Poa nevadensis*) are the common understory dominants. In the Palouse Prairie section and valleys of the Blue Mountains section, *Crataegus douglasii* dominates riparian vegetation with or instead of, *S. exigua*. *Comus sericea*, *Betula occidentalis*, and *Philadelphus lewisii* are locally important, especially in the northern and eastern sections of the CRB.

HOT, MOIST SHRUBLANDS (CLASS 4.2)

The class includes the hot, moist, basin shrublands. All are found on flat or gentle slopes, and none have shallow soils. These occur on closed-basin lake margins and valley bottoms, on playas which are annually flooded, as well as in desert stream floodplains. They are found largely in the

southern sections of the **CRB**, and include three separate groups of communities. The most significant are the seasonally flooded, alkaline bottomland habitats. *Sarcobatus vermiculatus* usually is the only shrub dominating these open **playas**, but sometimes can be codominant with *Atriplex confertifolia*. Either *Distichlis spicata* or *Leymus cinereus* often provide significant cover in the understory. The second group of habitats in this class **are the** warmest *Artemisia cana* **playas** with *L. cinereus* or *Muhlenbergia richardsonis* in the understory. The third group includes the deep-soiled, seasonally-flooded valley **bottoms** usually dominated by *Artemisia tridentata* ssp. *tridentata*, sometimes codominant with *S. vermiculatus*. **These can** have *L. cinereus*, *Festuca idahoensis*, *Stipa comata*, or *Pseudoroegneria spicata* **as the** major grasses.

HOT, DRY SHRUBLANDS (CLASS 4,3)

This class is characterized by the modal salt desert shrub communities. They are both hot and dry, but usually have sufficient moisture to allow for the development of some bunchgrass cover. *Sarcobatus vermiculatus*, *Atriplex confertifolia*, *A. canescens* and *Krascheninnikovia lanata* characterize the important habitats. **These** salt desert shrubs **are** often codominant with *Artemisia tridentata* ssp. *wyomingensis* or *A. nova* in this class. Associations occur on gentle slopes and flats, and on the margins of the dry **playas**. The soils are usually deep and alkaline, but associations found on stony or sandy soils do occur. Important grasses of these habitats include *Oryzopsis hymenoides*, *Elymus elymoides*, and *Poa secunda*. This bioenvironment generally occurs on the margins of the basins in the southern sections of the **CRB**, and is generally less significant than either class 4,2 or 4,4.

HOT, VERY DRY SHRUBLANDS (CLASS 4,4)

The hottest and driest habitats in the **CRB** define this class. They dominate many of the basins of Nevada, southeastern Oregon, southern Idaho and northwestern Utah. They are characterized by widely spaced, tall shrubs on **playas**, barrens or low dunes. Salt desert shrubs are the only important species, with *Sarcobatus vermiculatus* and *Atriplex confertifolia* being the most significant. *Grayia spinosa*, *Atriplex nuttallii*, *Psoralea polydenia* var. *polydenia*, *Ephedra nevadensis* and *Allenrolfea occidentalis* associations are also included within the class. The sparse understory is often barren, or characterized by isolated plants of *Oryzopsis hymenoides*, *Elymus elymoides*, *Sporobolus airoides*, *Lycium shockleyi*, *Kochia americana*, *Nitrophila occidentalis*, *Suaeda nigra* and desert annuals.

HERBLANDS

COLD, WET HERBLANDS (CLASS 1,1)

Communities occurring on saturated, generally organic substrates **define** this class. These wetland communities are dominated largely by graminoids, but the class also includes a few forb-dominated types. *Carex scopulotum* is the community that characterizes this class. It occurs throughout the **CRB**, although it is more common in the central and eastern sections. *Carex nigricans*, and to a lesser extent *C. spectabilis*, are prominent types in the western sections of the **CRB**. Other graminoid-dominated types in this class include high elevation phases of the *Eleocharis pauciflora*, *Calamagrostis canadensis*, *Carex lasiocarpa*, and *C. simulata* types. Forb-dominated communities, such as *Senecio triangularis* and *Mertensia ciliata*, occur in several sections in the western portion of the **CRB**.

COLD, MOIST HERBLANDS (CLASS 1,2)

This class is comprised of moist alpine and high-subalpine communities that are also largely dominated by graminoids. These communities are often associated with late-lying snow and substrates are generally not saturated season-long. In some cases they are **mesic** variants of wetland communities occurring in class 1,1, such as *Carex scopulotum* and *C. spectabilis*, where they are associated with *Potentilla ovina* and *Geum rossii*, indicating dryer substrates. Cold, moist grassland types dominated by *Festuca ovina*, *F. idahoensis*, *Elymus glaucus*, and *Deschampsia cespitosa* also occur in this class, with herbaceous associates such as *Potentilla diversifolia*, *Caltha leptosepala*, and *Trisetum spicatum*. The snow-bed community, *Juncus drummondii*-*Carex* spp., also occurs here.

COLD, DRY HERBLANDS (CLASS 1,3)

Occurring in this class are dry herbaceous communities on well drained soils. Along the alpine moisture gradient, they occur between the snow-accumulation sites of class 1,2 and the wind-deflation sites of class 1,4. In the northwestern portion of the **CRB** dry *Danthonia intermedia*, *Kobresia bellardii*, *Carex breweri*, *Festuca viridula*, and *F. ovina* communities occur. In the central and eastern portions of the area the *Festuca idahoensis*-*Eriogonum caespitosum* and *Geum rossii* types occur in this class. *Calamagrostis purpurascens* occurs in both central and northwestern sections.

COLD, VERY DRY HERBLANDS (CLASS 1,4)

This class consists of dry alpine turfs that occur on exposed ridgelines where little to no snow accumulates in the winter. This combination of cold temperatures and **xeric** moisture conditions only occurs in mountains of the central and eastern portion of the **CRB**. Several associations in the *Carex elynoides* and *C. rupestris* series occur in this class.

COOL, WET HERBLANDS (CLASS 2.1)

Similar to class 1,1, this class has saturated substrates that are generally high in organic matter, although considerably more mineral/organic matter variation occurs in this class than its high-elevation neighbor. With few exceptions, graminoid associations dominate these conditions, with *Carices* being most prevalent. There are several widespread associations occurring in sections throughout the **CRB**, including *Carex rostrata*, *C. aquatilis*, *C. lasiocarpa*, *C. lanuginosa*, *C. simulata*, several wet *Deschampsia cespitosa* types, and *Calamagrostis canadensis*. Associations occurring largely in the Rocky Mountain sections include *Carex limosa*, *Glyceria borealis*, *Eleocharis pauciflora*, *Senecio triangularis*, and *Equisetum fluviatile*. *Poa cusickii* and high-elevation *Juncus balticus* types represent the dry end of this class.

COOL, MOIST HERBLANDS (CLASS 2.2)

This class is largely comprised of moist grasslands occurring at mid-montane to subalpine elevations, with a few **forbland** associations also **occurring**. Substrates are generally well-drained, although **mesic riparian/wetland** habitats are also included here. Examples of the latter situation include the *Poa palustris* association, **as well as several xeric *Deschampsia cespitosa* types** where *Festuca scabrella*, *F. iakhoensis*, and *Carex* spp. are codominants. Moist, cool *F. idahoensis* associations best characterize this class, occurring throughout the CRB. *F. iaizhoensis* types include *F. idahoensis-Deschampsia cespitosa*, *F. idahoensis-Stipa richardsonii*, and *F. idahoensis-Elymus caninus*. *Festuca viridula* associations are restricted to subalpine elevations in the northwestern sections of the CRB, while *F. scabrella* types occur in the northeastern sections. Other series represented by this class include *Poa nevadensis*, *P. cusickii*, *Carex hoodii*, *Elymus glaucus*, *Festuca ovina*, *Veratrum californicum*, and *Mertensia ciliata*.

COOL, DRY HERBLANDS (CLASS 2.3)

Class 2.3 consists of dry *Festuca* grassland associations, with *F. idahoensis* types from throughout the CRB and *F. scabrella* types occurring in the northeastern sections. Codominants with these species vary somewhat geographically, but include *Koeleria macrantha*, *Pseudoroegneria spicata*, *Carex filifolia*, *Poa secunda*, *Festuca kingii*, *Eriogonum heracleoides*, *Stipa richardsonii*, and *Hieracium cynoglossoides*. Moist *F. idahoensis* associations that occur in the northwestern sections of the CRB are: *F. idahoensis-Carex hoodii*, *F. idahoensis-Rosa nutkana*, *F. iakhoensis-R. woodsii*, and *F. idahoensis-Symphoricarpos albus*. The only non-fescue type in this class is the *P. 'spicata-E. heracleoides* association.

COOL, VERY DRY HERBLANDS (CLASS 2.4)

Within the CRB, this class represents a bioenvironment found only in the relatively arid mountain ranges of the Challis Volcanics, Beaverhead Mountains, and Belt Mountains sections. *Festuca kingii* is the only series included in this class, forming near monocultures in the *F. kingii* association, **as well as** codominating with *Carex elynoides*, *Phlox pulvinata*, and *Poa cusickii* in three additional types. These associations occupy warm, well-drained, unstable, high-subalpine and low-alpine habitats.

-WARM, WET HERBLANDS (CLASS 3.1)

Class 3.1 includes a wide variety of warm graminoid wetlands occurring in standing water or on a substrate that is saturated season-long. The class is best characterized by the widespread *Carex nebrascensis* association. Other modal communities in this class include *Eleocharis palustris*, *C. simulata*, *C. aperta*, *C. lanuginosa*, *C. microptera*, *Nuphar lutea* var. *polysepala*, and *Juncus balticus*. Warm, low-elevation variants of the *Glyceria borealis*, *Equisetum fluviatile*, and *Deschampsia cespitosa* types occur here as well as cool, high-elevation variants of *Scirpus acutus*. In the northeastern sections of the CRB, this class includes the *Phalaris arundinacea* association.

WARM, MOIST HERBLANDS (CLASS 3.2)

Bioenvironments represented by this class are not well represented in the CRB. *Poa nevadensis* is the only series represented here, where it occurs throughout the Northwestern Basin and Range section in Nevada and Oregon. Two associations are recognized in this series, *P. nevadensis* and *P. nevadensis-Puccinellia lemmonii-Elymus elymoides*.

WARM, DRY HERBLANDS (CLASS 3.3)

This class includes the moist *Pseudoroegneria spicata* grassland associations. Most occur in steep, canyon or mountainous terrain where *P. spicata* is **codominant** with *Baisamorrhiza sagittata*, *Festuca idahoensis*, and *Poa secunda*, and in some sections *Stipa comata* and *Eriogonum heracleoides*. The class also includes gentle-gradient Palouse grasslands, which are largely extinct, and depositional **areas in** some eastern sections where *Pascopyrum smithii* is **codominant**.

WARM, VERY DRY HERBLANDS (CLASS 3,4)

Pseudoroegneria spicata grasslands also characterize this class with associations on the dry end of the gradient. This class is somewhat less uniform than class 3,3, with several other dry grassland series also represented. *P. spicata* types include those where it is codominant with *Poa secunda*, *Arenaria congesta*, *Sporobolus cryptandrus*, and *Opuntia polyacantha* in canyon grasslands and *Bouteloua gracilis* along the eastern edge of the CRB. *Stipa comata* grasslands are included in this class, as are those dominated by *S. thurberiana* in the Modoc Plateau section. Two special edaphic situations are also encompassed by this class. One is the scablands occurring on volcanic surfaces in the western sections of the CRB, where such associations as *P. secunda*, *Danthonia uniflora*-*P. secunda*, *Lomatium cous*-*P. secunda*, and *A. congesta*-*P. secunda* occur. The second edaphic situation occurs on windswept alluvial fans in the high-mountain valleys of the Beaverhead Mountains and Challis Volcanics sections where the *Carex stenophylla*-*P. secunda* association occurs.

HOT, WET HERBLANDS (CLASS 4,1)

Hot wetland types occurring at the lowest elevations of the CRB comprise this class. Most are widespread in distribution. The *Typha latifolia* and *Scirpus acutus* types are most characteristic of this bioenvironment. Other *Scirpus* series are also included here, including *S. validus*, *S. maritimus*, *S. pungens*, and *S. americanus*, and the *Typha domingensis* association found in the Lahontan Basin section. In the northeastern sections of the CRB, this class includes the *Phragmites australis* association.

HOT, MOIST HERBLANDS (CLASS 4,2)

This class encompasses low-elevation, bottomland habitats that are relatively moist. Soils tend to be deep and have high water-holding capacity, but are alkaline since most moisture loss occurs through evaporation from the surface. Several *Distichilis spicata* associations, especially *D. spicata*-(*Scirpus nevadensis*), as well as moist *Leymus cinereus* and some low-elevation *Juncus balticus* types, characterize this class. In addition, *Spartina pectinata* and *Pascopyrum smithii* associations occur in the eastern sections, and *Leymus triticoides* in the Modoc Plateau section.

HOT, DRY HERBLANDS (CLASS 4,3)

This class is comprised of a heterogeneous group of grass- and forbdominated vegetation. The hotter and drier of the *Distichilis spicata* associations occur in this class, as well as most of the *Leymus cinereus* types, both of which occur in alkaline bottomlands. *Leymus triticoides* and *Suaeda moquinii* are also alkaline bottomland types that occur only in the Lahontan Basin and Northwestern Basin and Range sections of the CRB. Other hot, low-elevation grasslands series include *Sporobolus cryptandrus*, *Nasella pulchra*, and *Aristida longiseta*.

HOT, VERY DRY HERBLANDS (CLASS 4,4)

Grasslands occupying the hottest, well-drained sites characterize this class. Only graminoid vegetation types occupy this extreme bioenvironment in the CRB, the *Oryzopsis hymenoides* series, in the western portion of the Northwestern Basin and Range and Lahontan Basin sections, and the *Leymus ambiguous*-*Enceliopsis nudicaulis* association in the Beaverhead Mountains and Challis Volcanics sections. Both occur on sandy or gravelly substrates.

APPENDIX 6.

Descriptions of the coarse level of Potential Vegetation classes of the Columbia River Basin. Nomenclature for species names follows **Kartesz** (1994).

ALPINE 81 COLD SUBALPINE WETLAND/RIPARIAN TYPES (COARSE LEVEL CLASS 1,1)

These environments are comprised of the wettest of exclusively alpine and subalpine habitat. The coldest and most snowbound of these sites (alpine) have growing seasons not much exceeding three weeks and have perpetually saturated substrates; the warm extreme has sufficient warmth (mean annual temperature exceeding 10° C) to support stunted trees that are also adapted to nearly perpetual growing season substrate saturation. Sites range from just below the highest of ridgelines and mountain masses downward to cirque basins and upper portions of 1st order **streams** and subirrigated slopes. Regardless of the dominant **lifeform** these sites are associated with heavy snowpack, sites termed **snowbed** communities when found in the alpine zone. Because sites generally occupy collecting positions in the landscape soil depths and development tend to be greater than that of surrounding positions; often there is considerable organic accumulation (peat) and leached (spodic) horizons may be found under forest canopies. High winds are a dominant environmental influence responsible for precipitation redistribution, ice particle abrasion and occasionally water deficits. Fire return frequencies are notably long, on the order of 300 to **1000+** years in the forested portions; shrub and herb-dominated vegetation may not experience fire. The alpine portion experiences many periglacial phenomena, most notably solifluction and frost heaving and thrusting, due to saturated soil conditions. Short growing seasons (low forest productivity) and fragility of these environments dictate that watershed and wildlife habitat protection be the dominant land-uses. Much of the land area within this class would qualify as jurisdictional wetland by vegetation, soils and hydrology.

The wettest and coldest sites (alpine) are mostly herb-dominated with *Carex scopulorum*, *C. nigricans*, *C. simulata*, *C. lasiocarpa*, *C. spectabilis*, *Calamagrostis canadensis*, *Deschampsia cespitosa*, *Eriophorum polystachion* dominating various communities both across the CRB and locally within it. Within forb-dominated communities *Senecio triangularis*, *Mertensia ciliata*, and *Caltha leptosepala* predominate. Drier alpine sites within this cell are also graminoid-dominated with those typifying the high elevations (**turf types**) being *Festuca ovina*, *Carex scirpoidea*, and *Deschampsia cespitosa* and *Trisetum spicatum*; at lower elevations plant stature is taller and *Festuca idahoensis* is the most common dominant with *F. viridula* and *F. scabrella* and *Elymus trachycaulus* constituting regional dominants of high mountain meadows. Common dominants of dwarf shrub dominated alpine **snowbeds** and wetlands are *Salix arctica*, *S. nivalis*, *S. planifolia*, *Kalmia microphylla*, *Phyllodoce empetrifolia* and *Cassiope mertensiana*. Slightly taller shrub dominants of a slightly lower zone are *S. wolfii*, *S. commutata*, *S. farriarum*, *Betula glandulosa* and *Vaccinium occidentale*. Open canopies with relatively short crowns and multiple-aged (size) structure characterize forests. Forests here grade to krummholz types and often exist as islands surrounded by shrub or herbaceous communities. Dominant forest alliances are *Abies lasiocarpa*, *Tsuga mertensiana*, *Picea engelmannii* and, in cirque basins and headwalls, *Larix lyallii*. Diagnostic/dominant undergrowth ranges from graminoids (*Calamagrostis canadensis*, *Carex dispenna*) to forbs (*Streptopus amplexifolius*, *Caltha leptosepala*, *Equisetum arvense*) and shrubs (*Menziesia ferruginea*, *Rhododendron albiflorum*, *Ledum glandulosum*).

COLD, MOIST SUBALPINE FORESTS (COARSE LEVEL CLASS 1,2)

Occurring in the same elevation zone as the forested portion of CLC 1,1 these forested environments are mostly as cold as those of CLC 1,1 but the effective precipitation is less. **Snowload** may be appreciable as evidenced by diagnostic plant composition. These sites are mostly of warmer aspects and upper slope positions. Soils are poorly developed, cold and generally have high organic content. Fire return frequency is on the order of **200 to 1000+** years and is primarily stand-replacing in nature though the open canopy nature of structure can promote a mosaic of burned/unburned. Most of this environment is above the limits of productive forests meaning yields are low and stand re-establishment is slow, with **shrubfields** often persisting for years; however the lower limits of this biophysical setting support productive forest where timber harvest is the major use. Other major land uses within this environment include watershed protection and recreation.

*The dominant alliances are **Abies lasiocarpa**, **Picea engelmannii** (or **P. engelmannii** x **P. glauca** hybrid swarm in Northern Rocky Mountains). Stands in which **Larix lyallii** is a monospecific dominant of tree layer or is combined with **A. lasiocarpa** or **Pinus albicaulis** characterize cirque-basins and headwalls thereof. Stand structure is generally open with non-interlocking canopies and as little as **30%** cover. **Pinus contorta**, **P. albicaulis** and **Larix occidentalis** are important components of seral stages and due to their longevity persist well into the “climax” stage. The undergrowth can be dominated by a variety of lifeforms, from graminoids (**Luzula glabrata** var. **hitchcockii**) and forbs (**Xerophyllum tenax**, **Clintonia uniflora**, **Galium triflorum**) to dwarf shrubs (**Vaccinium scoparium**, **Phyllodoce empetriformis**) and larger shrubs (**Vaccinium deliciosum**, **V. membranaceum**, **V. globulare**) and tall shrubs (**Alnus viridis** var. **sinuata**, **Menziesia ferruginea**). Two of the most areally extensive plant associations in the CRB east of the continental divide typify this class, **Abies lasiocarpa/V. scoparium** and **A. lasiocarpa-Pinus albicaulis/V. scoparium**.*

DRY ALPINE & COLD DRY SUBALPINE PARKLANDS (COARSE LEVEL CLASS 1,3)

This class ranges from relatively dry and cold alpine habitats, but not so extreme as wind-deflation sites (typified by cushion plant communities or fellfields) to forests of dry, wind-impacted positions or more arid climatic regimes. Both low moisture and cold temperatures are strongly limiting. Positions occupied by both forest and non-forest are exposed (wind impacted) uplands feeding 1st and 2nd order streams; **all** aspects are represented but west- and south-facing slopes predominate. Soils are well-drained and tend to be poorly developed Entisols and Inceptisols. Mountain meadows, developed where deeper and finer-textured soils occur, are often interspersed with forest vegetation creating a “parkland.” Fire burning through the open spatial structure of forests within this biophysical environment produces a mosaic of burned and unburned patches, though stand-replacing fire is **also** prominent in lower elevation forests with a more closed **canopy**. Grazing impact (primarily sheep) on these already stressed alpine sites is an issue, particularly the susceptibility of nutrient cycles. The broad range of forest environments includes those wherein watershed and wildlife protection is paramount and those of lower elevations where timber harvest is extensive and appropriate, though regeneration can be problematic.

Within the alpine and high subalpine zones this environment is typified by turf and grassland dominated by the various regionally important species including **Kobresia bellardii**, **Carex brewerii**, **C. scirpoidea**, **C. rupestris**, **Festuca ovina**, **F. idahoensis**, **F. viridula**, and **Calamagrostis**

purpurascens. The eastern portion of the CRB has extensive areas of high elevation calcareous substrates characterized by a **mix** of *Dryas octopetala* and *Carex rupestris*-dominated turf associations. The dominant forest alliances include *Abies lasiocarpa*, *Picea engelmannii* (and *P. engelmannii* x *P. glauca* swarms), *Pinus albicaulis* and *Pinus contorta*; *Tsuga mertensiana* is much less important in these drier environments. Tall and mid-sized diagnostic shrubs important in moister environments are scarce here but low to dwarf shrubs are characteristic, e.g. *Vaccinium scoparium*, *V. cespitosum*, *V. globulare*, *Ribes montigenum*, and *Juniperus communis*. It is in these drier environments that considerable differentiation is seen among sections as to what ecological species assemblages are represented **in this class**. **In the western CRB** *A. lasiocarpa/V. scoparium* or *A. lasiocarpa-P. albicaulis/V. scoparium* are important (from CLC 1.2 in eastern CRB). In the eastern CRB this environment is often represented by *A. lasiocarpa/Juniperus communis*, */Arnica cordifolia* and */Calamagrostis rubescens*, especially on calcareous substrates.

VERY DRY ALPINE & TIMBERLINE/COLD SUBALPINE GROVELANDS (COARSE LEVEL CLASS 1,4)

Within the alpine zone these are the driest turf and cushion-plant habitats, those most wind-impacted, swept free of winter snow: consequently they receive their moisture primarily from spring and summer convectional storms. Congeliturban combined with wind deflation leaves the surface of these immature soils with a rocky pavement. This severe environment is found on south to northwestern aspects, usually **upslope** position and is most extensively developed along ridgelines and saddles receiving Venturi effects. Some of the lower alpine to subalpine herblands develop on **well-drained**, unstable, frost-heaved surfaces. This combination of cold temperatures, xeric moisture regime, and unique substrate conditions is found only in the mountains of the north-central, eastern and southern Cascades regions of the CRB, areas also notable for strong summer convectional storms. Shrublands occur on warmer sites from lower alpine to subalpine, but effective moisture is probably less even than that experienced by **the** higher alpine. Forests of this class are **similarly** predominantly found on south- and west-facing slopes, made even more xeric by the most influential of forces in this environment, strong drying southwesterly winds. Though lightning strikes may be numerous here, fires consume very little of the landscape at any one time due to lack of fuels and the fact that rain often accompanies the lightning. Productivity is very low in this biophysical setting. Sheep bands are pastured here, where they consume fellfield and cushion plant forbs. Only the lowest elevation forests are suited to timber cutting and here regeneration can be problematic. The recreation and watershed protection values may outweigh all other values.

The alpine turf communities are typically dominated by varying combinations of *Cizrex elynoides*, *C. rupestris* and *Phlox pulvinata*. *Festuca kingii* virtual monocultures are characteristic of dry, unstable slopes and it may **also co-occur with the** above species. *Artemisia arbuscula* varieties dominate the dry subalpine, occurring primarily on azonal soils of the southeastern CRB. The Southern Cascades section supports several dwarf shrub dominants. Forest stands are open, generally less than 70% canopy cover, and tree heights are strongly reduced. *Abies lasiocarpa* and *Picea engelmannii* are at the dry extremes of their distribution and repopulate these sites very slowly following disturbance. *Pinus albicaulis* and *P. contorta* are the major species of both seral and long-term stable stands. This biophysical environment is generally beyond **the** cold **limits** of *Pseudotsuga menziesii* and other seral conifers. Undergrowth species diagnostic of the driest sites are *Carex rossii*, *C. geyeri* and *Festuca idahoensis*. *Arnica cordifolia* occurs with all the above-listed tree species to define several widespread and **areally** extensive plant associations.

COOL SUBALPINE WETLAND/RIPARIAN (COARSE LEVEL CLASS 2,1)

Short, cold-limited growing seasons that do not inhibit growth of trees and saturated substrates for most of the growing season characterize these environments. These riparian and wetland systems are generally associated with 1st order streams, seeps, subirrigated slopes, and heavy **snowload** sites. Found at high elevations below upper treeline, these environments appear along narrow corridors near subalpine streams and rivers, or in high mountain valleys surrounded by subalpine forests. Soils are generally derived from deep alluvium and are generally high in organic matter. Cold, peat-forming habitats are found here. Wildlife habitat and watershed protection are the dominant land-uses in this environment although livestock grazing and timber harvest are traditional uses in many areas.

Herbaceous-dominated vegetation composed of several *Carex* species (*C. aquatilis*, *C. lasiocarpa*, *C. lanuginosa*, *C. simulata*) wet *Deschampsia cespitosa* types, and *Calamagrostis canadensis* occupy these environments throughout the **CRB**. These graminoids, along with other meadow-forming species restricted to particular sections of the **CRB**, grow with a variety of shrub-dominated vegetation types. Tall *Salix* species and *Alnus incana* typify these shrub types although shorter shrubs can be dominants, such as *Alnus viridis* ssp. *sinuata*, *Artemisia cana*, *Betula glandulosa* or *Vaccinium uliginosum*. *Abies lasiocarpa* and *Picea engelmannii* forests dominate these cold, wet environments across the **CRB**. Sectional variation reflects important differences within this coarse environment. *Abies amabilis*, *Tsuga heterophylla*, *Abies grandis*, *Tsuga mertensiana* and *Thuja plicata* are important in local environments in the northern **CRB**. These forests typically have multiple-aged stand structure with open canopies. Tall shrubs, such as *Oplopanax horridum*, *Comus sericea*, *Menziesia ferruginea*, and *Alnus viridis* ssp. *sinuata*, fern and fern-allies, such as *Equisetum arvense*, *Athyrium filix-femina*, *Gymnocarpium dryopteris*) and forbs such as *Senecio triangularis*, *Streptopus amplexifolius*, are found in association with these subalpine trees.

COOL, MOIST FORESTS (COARSE LEVEL CLASS 2,2)

This biophysical environment represents the most moderate and highest productivity portion of what is mostly the lower subalpine zone where growing seasons are relatively long. Moisture is limiting near the end of what are typically long dry summers; this is true even in portions of the **CRB** with strong summer convectional storms. This environment appears on all aspects, though not generally on steep south slopes nor on ridge tops, slope shoulders or any areas with thin soil mantles; most typical positions are lower to toe-slopes and welldrained benches. Soils are well-drained and may span a wide range of orders from Entisols to Spodosols, but generally they are mature enough to show distinct horizonation and eluvial-illuvial zones. The moderate nature of this environment is reflected in the largest number of plant associations of any "subalpine" habitat. Fire, primarily stand-replacing, is the major landscape process with fire return intervals on the order of 50 to 300 years. Insects, primarily pine beetles e.g. mountain pine beetle (*Dendroctonus ponderosae*), and disease, e.g. white pine blister rust (*Cronartium ribicola*) cause significant periodic mortality which predisposes stands to catastrophic fire. The major land use is timber management with livestock production on transitory range, wildlife management and recreation subsidiary uses.

These forests are primarily closed with overlapping canopies and tall crowns. A large number of forest alliances are represented including *Abies amabilis* and *A. concolor* restricted to the Eastern Cascades Section; *Abies grandis* found exclusively west of the Continental Divide; *Abies lasiocarpa*

and *Picea engelmannii* are virtually ubiquitous; *Tsuga mertensiana*, *Tsuga heterophylla* and *Thuja plicata* are important from the Cascades to the northern portion of the west slopes of the Rocky Mountain Front Range, as far as maritime climatic influence penetrates in Montana. Diversity of seral tree species is high, including *Pseudotsuga menziesii*, *Pinus monticola*, *P. contorta*, *P. albicaulis*, *Larix occidentalis*, *Abies grandis* and, east of the Continental Divide, *Populus tremuloides* and *P. trichocarpa*. Plant associations defined by *Clintonia uniflora* (as an undergrowth indicator) in conjunction with various tree species probably constitute a greater areal extent of the northcentral CRB than any other plant association within this CLC; *Achlys triphylla* and *Acer circinatum* function similarly in the Eastern Cascades Section. This environment as represented in the southern portion of the CRB is floristically distinct from the rest of the CRB in having *Populus tremuloides* dominated types with *Symphoricarpos* spp.

COOL, DRY FORESTS (COARSE LEVEL CLASS 2,3)

These environments constitute the warm and dry portion of the lower subalpine zone and extend to the upper montane. Effective moisture is the primary limiting factor. These sites are found on drier aspects, primarily west- and east-facing, though north slopes are included at lower elevations or in drier climatic regimes. Soils are primarily Alfisols, Entisols, and Inceptisols; they are well-drained and have reduced litter and organic content. The major landscape process is stand-replacing fire; fire return intervals range from 30 to 300 years. Conditions favorable for catastrophic, fire are engendered by high tree mortality due to insects (e.g. mountain pine beetle) and disease (e.g. *Armillaria* and *Phellinus* root rot). Timber management is the major land use, followed by transitional range grazing, wildlife management, and recreation. This environment is found in all Northern Sections and most of the southern but is quite floristically distinctive in the Lahontan Basin Section.

The number of climax forest alliances represented is reduced from that of moister environments and includes *Pseudotsuga menziesii*, indicating the dry nature of these environments; other climax tree species include *Abies lasiocarpa*, *A. grandis*, *A. amabilis* (Eastern Cascades section only), *Picea engelmannii* and *Tsuga mertensiana*. Major seral tree species are *P. contorta*, *P. albicaulis*, *P. menziesii* and *Larix occidentalis*; the warmest of these habitats also support *P. ponderosa* as a seral species. Some of the most broadly distributed associations are *Abies lasiocarpa/Vaccinium globulare*, */V. membranaceum*, */Xerophyllum tenax*, */V. cespitosum*, */Calamagrostis rubescens*, *P. menziesii/Linnaea borealis*, *P. menziesii/V. cespitosum*, and *Abies grandis/X. tenax*.

COOL, VERY DRY FORESTS (COARSE LEVEL CLASS 2,4)

This is the warmest and driest of forested subalpine environments. Moisture is severely limiting because this environment tends to occupy positions near ridgelines and on south and west-facing slopes; these aspects are also rendered more dry by prevailing southwesterly winds and the conjunction of high afternoon insolation loads with high ambient air temperatures. Moisture deficits are reflected in the mostly very open stand structure (C 50% canopy cover), however stands can be closed, a condition that causes the virtual elimination of undergrowth. Soil development tends to be minimal but Alfisols are represented; soils are generally well- to excessively drained but their depths range widely. This environment is associated with no special climatic regime, occurring from the Eastern Cascades to the Yellowstone Highlands and Wind River Sections and also occurs in the

predominantly calcareous Beaverhead Mountains and Belt Mountains sections. Fire regimes vary from stand replacing to a mosaic of underburns; **fire** return intervals may be as short as 30 years and as long as **500+** years. These lower productivity sites experience less insect and disease impacts, but are hardly immune, witness the demise of even the driest *Pinus albicaulis* stands under certain climatic regimes. Recreation is probably the primary activity on these sites, slightly ahead of timber management, which is deemed advisable only on the most favorable of these sites; wildlife management and watershed protection are primary goals in the more inaccessible of these sites.

These biophysical environments are the driest capable of supporting *the Abies lasiocarpa* and *Picea engelmannii* climax alliances and the coldest in which *Pseudotsuga menziesii* is a climax species. *Pinus contorta* is a long-persisting dominant in the Eastern Cascades and Wind River Sections and also a common seral species throughout the remainder of this class's representation in the CRB. These environments almost always exceed *the* cold limits of *Pinus ponderosa*. Plant associations or stands dominated by *Pinus albicaulis* and *Pseudotsuga* are generally open, whereas a number of the *Abies lasiocarpa* associations, particularly *A. lasiocarpa/Arnica cordifolia* are closed. Common and diagnostic undergrowth species include *A. cordifolia*, *Calamagrostis rubescens*, *Carex geyeri*, *Spiraea betulifolia*, *Arctostaphylos uva-ursi* and *Symphoricarpos albus* (or *S. oreophilus*). On calcareous substrates where *Picea engelmannii* and *Pseudotsuga* are favored over other tree species, the important undergrowth indicators are *Senecio streptanthifolius*, *Clematis tenuiloba* (or *C. pseudoalpina*) and *Juniperus communis*. Areally extensive associations within this environment are *P. menziesii/S. betulifolia* and *A. lasiocarpa/A. cordifolia*.

WARM MONTANE WETLAND/RIPARIAN TYPES (COARSE LEVEL CLASS 3,1)

This biophysical environment provides relatively long growing seasons limited by winter cold. Standing water or substrates that are saturated season-long place limitations on vegetation and never experience any soil drought. These riparian and wetland environments typically occur in lower montane settings below the subalpine forest zone. These environments occur on flats in valley bottoms and canyons, typically with deep soils, throughout the CRB. Fish and wildlife habitat is provided here as well as some timber production. Livestock production has traditionally concentrated in this zone.

The Carex nebrascensis association is widespread and best characterizes the herbaceous-dominated communities in this environment. Other modal herbaceous communities include *Eleocharis palustris*, *C. simulata*, *C. aperta*, *C. lanuginosa*, *C. microptera*, *Nuphar lutea* var. *polysepala*, and *Juncus balticus*. Warm, low-elevation variants of the *Glyceria borealis*, *Equisetum fluviatile*, and *Deschampsia cespitosa* types occur here as well as cool, high-elevation variants of *Scirpus acutus*. Warm *Alnus incana*, *Comus sericea* and some *Salix* (*S. rigida* and *S. lucida* ssp. *lasiandra*) associations, as well as the lower elevation, warmer *S. boothii*, *S. lemmonii*, and *S. drummondiana* tall shrub community types appear with the sedges listed above. Also included are the warmer *Artemisia cana* *playas*, which have understories dominated by *Poa nevadensis*. Riparian forests, typically with tall shrub-dominated understories and an open tree canopy composed of *Populus trichocarpa* occurs throughout the CRB in this environment. *Populus angustifolia*, *Populus tremuloides*, and *Alnus incana* also appear as dominant trees in particular southern sections of the CRB.

WARM, MOIST FORESTS (COARSE LEVEL CLASS 3,2)

This biophysical environment provides relatively long growing seasons with moderate summer heat associated with relatively mild winters. Moisture is only occasionally limiting and results in the highest productivity associations in this temperature regime. This mid-montane environment appears on all aspects and a variety of soil conditions that are generally well-drained. Fire is a major landscape process in this environment with high to moderate severity and moderate to long return intervals. This environment is represented in all sections except the Columbia Basin, High Lava Plains, Snake River **Basalts**, **Lahontan** Basin, Yellowstone Highlands, and Wind River sections. Timber management is the major land use although livestock production, wildlife management, and recreation may occur in this environment.

These forests are closed-canopied with a variety of understory vegetation types. In the northwestern **montane** regions, forests that reflect a maritime climatic influence occupy this class, for example, mild associations in *Abies grandis* and *Thuja plicata* series. As the maritime influence diminishes, the *Pseudotsuga menziesii*/*Acer glabrum* and *Pseudotsuga menziesii*/*Linnaea borealis* associations become the representative types for this environment. Most *Populus tremuloides* associations in this temperature regime appear in this moisture class. *Abies concolor* and *Calocedrus decurrens* associations occupy this class in the Sierran region. Early stand development supports numerous seral communities usually dominated by *P. menziesii* or combining with as many as 9 other tree species.

WARM, DRY FORESTS (COARSE LEVEL CLASS 3,3)

This biophysical environment provides relatively long growing seasons with moderate summer heat associated with relatively mild winters. Associations in this class can be very productive because moisture is limiting only late in the growing season. Most of this environment displays greater winter precipitation than summer. Fire is a major natural process in this environment with moderate to high severity fires with moderate return intervals. This is a **common** environment across the area, absent only in the High Lava Plains and Lahontan Basin sections.

The *Pseudotsuga menziesii*/*Physocarpus malvaceus* association typifies this class throughout the Rocky Mountains, although eighty-two other associations have been included in this environment across the **CRB**. Dry *Abies grandis*, *A. concolor*, *Picea engelmannii*, moist *Pinus ponderosa* and *Populus tremuloides* with moist shrub associations are found in this environment. Both the *Pseudotsuga menziesii*/ and *Abies grandis*/*Calamagrostis rubescens* associations often represent this environment. Sierran forests are represented by *Pinus ponderosa*-*Pinus jeffreyi*/*Mahonia repens*, *A. concolor*-*Pinus monticola*-*P. ponderosa*, and *P. jeffreyi*-*Quercus kelloggii* associations. Formation of **brushfields** with fire-adapted trees, such as *Pinus ponderosa*, *Pinus contorta*, and *Populus tremuloides* are a common feature in this environment.

WARM, VERY DRY FORESTS (COARSE LEVEL CLASS 3,4)

This biophysical environment is associated with moderate summer heat and provides relatively long growing seasons **that** are usually truncated by soil drought. Most of this environment displays greater winter precipitation than summer. Fire is a major natural process with moderate to light severity fires with short return intervals. The forests are mid-montane to lower foothills and often associated with shallow soils and other sites that experience soil drought. Livestock grazing and, to a lesser degree, timber harvesting are common landuses.

Bunchgrasses, *Juniperus communis*, *Purshia tridentata*, or *Cercocarpus ledifolius* form associations with *Pseudotsuga menziesii*, *Pinus flexilis*, and *Abies concolor* in this environment. This class represents cooler environments in the central Rockies where *Pinus ponderosa* is often a minor part of **the** forests and *P. menziesii* is found at lower treeline. *P. flexilis* is part of these open forests 'in the Beaverhead **Mountains**, Challis **Volcanics**, **Overthrust** Mountains, and Belt Mountains sections. In mild climatic sections such as the Eastern Cascades and Okanagan Highlands, this environment usually is transitional to lower **treeline** forests dominated only by *P. ponderosa*. *P. ponderosa* and *Pinus jeffreyi* with *Ceanothus velutinus* represent this class in the Southern Cascades section. **Fire**-adapted trees, such as *Pinus ponderosa*, *Pinus contorta*, and *Populus tremuloides* **may** be common features in this environment that form mostly open forests or woodlands.

HOT VALLEY & PLAIN WETLAND/RIPARIAN TYPES (COARSE LEVEL CLASS 4,1)

High summer heat and saturated soils, or flooded and periodically flooded sites typify this bioenvironment. These hot wetland types occur at the lower elevations in the **CRB** and are generally bottomland habitats. Soils tend to be deep and have high water-holding capacity. These are the hot, wet riparian and bottomland habitats that are invariably flat and deep-soiled. High evapotranspiration demand can result in saline or alkaline soils. These environments occur along valley bottoms and streams, and are characterized by tall shrubs which can occasionally form closed canopies. They generally occur as narrow corridors, forming conspicuous stands only in the larger valleys in the less mountainous sections of the CRB. Livestock production and farming are common landuses.

Typha latifolia and *Scirpus acutus* types are the most characteristic herbaceousdominated communities in this bioenvironment and are widespread across the CRB. Other *Scirpus* species (*S. validus*, *S. maritimus*, *S. pungens*, and *S. amen'canus*) and *Typha domingensis* associations are found in different sections of **the CRB**. Several *Distichilis spicata* associations, as well as moist *Leymus cinereus* and some low-elevation *Juncus balticus* types, characterize the drier gradient positions in these environments. *Salix exigua* is the most important shrub species in this environment dominating most of its shrub communities. *Carex sp.*, *Juncus sp.*, *Equisetum sp.*, *Rosa woodsii*, mesic forbs (*Heracleum lanatum* and *Hydrophyllum sp.*), and grasses (primarily *Leymus cinereus*) are the common understory dominants. *Crataegus douglasii*, *Comus sericea*, *Betula occidentalis*, and *Philadelphus lewisii* are locally important shrubs, in the northern and eastern less mountainous sections of the CRB. *Betula occidentalis*, *Populus fremontii*, *Alnus rhombifolia* and *Salix amygdaloides* are common hardwood tree-dominated riparian communities in this environment. *Pinus ponderosa* and *Pseudotsuga menziesii* **may** occur in these forests with tall shrubs, whereas Sierran environments have *Tsuga heterophylla* and *Alnus rubra* riparian forests,

HOT, MOIST LOWER TREELINE/FOOTHILLS FORESTS, SHRUBLANDS & HERBLANDS (COARSE LEVEL CLASS 4,2)

-This biophysical environment is characterized by generally mild winters, with relatively high summer heat, and low moisture availability that arrives primarily in winter. Found in low elevations near foothills and adjacent plains, it can be found as an important type in all areas in the CRB, on all aspects and slopes, and a variety of soil types. These features combine to provide a growing environment for open, lower **treeline** woodlands and shrublands. Low intensity, high frequency fires and drought are the dominant natural processes in this environment. Warm, lower montane forests or woodlands at lower **treeline** occupy this environment only in and adjacent to the Eastern Cascades section and in the Owyhee Uplands. Land use is dominated by **farming** and livestock production with some timber harvesting.

Festuca iaizhoensis associations throughout the CRB and *F. scabrella* types in the northeastern sections typify **herbaceous-dominated** vegetation, in this environment. Moist site associated species, such as *Carex hoodii*, *Rosa nutkana*, *R. woodsii*, and *Symphoricarpos albus* occur in the northwestern sections of the CRB. Associated dry site species might include *Koeleria macrantha*, *Pseudoroegneria spicata*, *Carex filifolia*, *Poa secunda*, *Festuca kingii*, *Eriogonum heracleoides*, *Stipa richardsonii*, and *Hieracium cynoglossoides*. Two associations are recognized in the dry *Poa nevadensis* series which are found throughout the Northwestern Basin and Range section in Nevada and Oregon. These grasslands appear in the understory of most of the environment's shrub types. Relatively moist shrublands and montane steppe types characterized by *Cercocarpus ledifolius* stands, *Artemisia tridentata* ssp. *vaseyana* steppe, cool *Purshia tridentata* habitats, montane *Artemisia cana* playas, and high elevation *Artemisia arbuscula* communities dominate this environment. Several other shrub types are supported by this environment. *Pinus ponderosa*, *Quercus garyana*, and *Pinus jeffreyi* with *Purshia tridentata* typify the woodlands. *J. occidentalis* forms transitional communities in this environment and usually appears in woodlands when **treeline** exists below this environment.

WARM, DRY SHRUB & GRASS-STEPPE, AND LOWER TREELINE FORESTS (COARSE LEVEL CLASS 4,3)

Deep, productive soils, hot, dry summers and moderate elevations characterize this biophysical environment. Productivity is limited largely by summer drought. While the environment is quite warm in the summers, the winters are usually quite cold. Habitats include the productive **shrub** steppe habitats, **warm** grasslands, and the warmest, driest forests, which are equally represented. Soils include ash, **loess**, and alluvium, usually greater than 10 cm. deep. The forests, shrub-steppe and grasslands habitats are relatively productive, and quite important locally for timber, grazing and **dryland** agriculture. It is found in all sections of the CRB, but is less significant in the cold, montane sections of Wind River, Overthrust Mountains, Beaverhead Mountains, Challis **Volcanics**, Bitterroot Mountains, Northern Rockies, **Flathead** Valley, and Okanogan Highlands.

The forests are characterized by *Pseudotsuga menziesii*, *Pinus flexilis*, *Pinus ponderosa*, and *Juniperus scopulorum*, with bunchgrasses or *Purshia tridentata* in the understories. These form open woodlands in the Blue Mountains and southern Rocky Mountains. The Southern Cascade section is typified by *Juniperus occidentalis* and dry *P. ponderosa*/*P. tridentata* woodlands. Uncommon *Acer grandidentatum* associations are part of this environment in the eastern portion of the Northwestern Basin and Range section.

Grasslands in this environment are mostly *Pseudoroegneria spicata* associations, occurring in steep, canyon or mountainous terrain with *Balsamorhiza sagittata*, *Festuca idahoensis*, *Poa secunda*, *Stipa comata*, *Pascopyrum smithii* or *Eriogonum heracleoides* codominant. Also included are warm, deep soiled **Palouse** grasslands and low shrublands (dominated by *Symphoricarpos albus*, *Rosa nutkana*, and *Artemisia tridentata* with *F. idahoensis*, *S. comata*, *Leymus cinereus* or *Oryzopsis hymenoides* understories) which have been largely converted to agriculture. Other shrublands found in this environment are *Artemisia tridentata* ssp. *wyomingensis*-*Purshia tridentata* and warm *P. tridentata* communities, with an *O. hymenoides*, *S. comata*, *S. columbiana*, *P. spicata* or rarely a *F. idahoensis* understory. Finally, the class includes the cooler examples of *A. tridentata* ssp. *tridentata* steppe, those with *S. columbiana*, *F. idahoensis*, *Pascopyrum smithii* or *P. spicata* understories.

HOT, VERY DRY CANYON SHRUB-STEPPE TO OPEN LOWER TREELINE FORESTS (COARSE LEVEL CLASS 4,4)

This widespread biophysical environment is the modal shrub-steppe of the **CRB**. It is a warm, very dry environment, with hot, dry summers and cool winters. Moisture in the growing season limits growth. Precipitation falls as snow and rain, usually limited to under 40 cm per year. This class occupies all soils, aspects and slopes, and is found throughout the **CRB**. It is the dominant environment in most of the southern sections.

The most significant habitats in this environment are typical sagebrush steppe habitat types. The most widespread are the drier big sagebrush (*Artemisia tridentata* ssp. *wyomingensis*, *A. t.* ssp. *vaseyana*) associations, on rocky- or sandy-soiled slopes with *Pseudoroegneria spicata*, *Stipa thurberiana* or *S. comata* as the understory dominants. It includes the more productive, shallow soiled flats with low sagebrush species (*Artemisia arbuscula*, *A. nova* and *A. rigida*) with a *P. spicata* or *Festuca idahoensis* understory. Also present are the: 1) drier mountain brush types, including *Cercocarpus ledifolius*, *C. montanus* var. *glaber*, *Arctostaphylos patula* and *Purshia tridentata* steppe associations; 2) canyon shrublands, including *Glossopetalon nevadense*, *Celtis laevigata* var. *reticulata*, and 3) chaparral communities from the southwestern sections of the **CRB**, dominated by *Ceanothus cuneatus*, *Arctostaphylos viscida*, *Quercus breweri*, *Q. vaccinifolia*, *Holodiscus discolor* and *Prunus subcordata*.

Grasslands and forests compose a minor, but diverse part of this bioenvironment. Dry, shallow-soiled *Pseudoroegneria spicata* grasslands include those where it is codominant with *Poa secunda*, *Arenaria congesta*, *Sporobolus cryptandrus*, and *Opuntia polyacantha* in canyon grasslands and *Bouteloua gracilis* along the eastern edge of the **CRB**. *Stipa comata* grasslands are included, as are those dominated by *S. thurberiana* or *S. lemmonii* in the southwestern sections of the **CRB**. The woodlands in this environment are typified by *Juniperus occidentalis* or *J. osteosperma*, with shrub steppe (*Artemisia* species) providing the common understory associates. *Quercus douglasii*, *Q. garryana*, and *J. occidentalis* characterize this bioenvironment along with the shrublands in the California sections, while *Pseudotsuga menziesii*, *J. osteosperma* and *Cercocarpus ledifolius* woodlands are the forests of this environment from the Owyhee Uplands.

HOT, ARID SHRUB-STEPPE (COARSE-LEVEL CLASS 4,5)

This bioenvironment is defined by two different types of habitats: the hottest, driest sagebrush steppe vegetation in the CRB, along with the cooler, salt desert shrub types. The sagebrush steppe parts of the class are found on scablands, recent lava flows and shallow soiled flats, with widely spaced low **shrubs** and up to 60% cover of exposed basalt. Dominant shrubs include *Artemisia rigida*, *A. arbuscula*, *A. nova*, *A. frigida* and *A. tridentata* ssp. *wyomingensis*. Also included here are the **Erigeron-dominated** scablands, with *E. douglasii*, *E. niveum*, *E. sphaerocephalum*, and *E. thymoides* associations. The grasses within these habitats are characterized by *Poa secunda* or *Elymus elymoides*, although *Stipa comata* and *Pseudoroegneria spicata* can be locally important. The salt desert shrub types in this class occur on flats to steep slopes of all aspects, but generally are found only in the southern portions of the CRB, in Nevada, southeastern Oregon and southwestern Idaho. These are mid-sized to low shrubs, also widely spaced, usually on deep soiled flats to gentle slopes, although occasionally on steep **rimrock**, talus or cliffs. Soils include **alkaline** sands and silts, ash, and stony weathered rhyolite or basaltic clays. *Atriplex canescens* and *Grayia spinosa* are the most important series, but include *Ephedra* sp., *Sphaeromeria argentea* and *Salvia dorii* associations as well. The understory is generally characterized by bare ground, but *Pseudoroegneria spicata*, *Elymus elymoides*, *Poa secunda*, *Otyzopsis swallenii* are important components of the vegetation.

VERY HOT, SEASONALLY-FLOODED SALT-DESERT BASINS (COARSE-LEVEL CLASS 5,3)

Flat, seasonally flooded, desert basins characterize this bioenvironment. Soils are alkaline clays and silts, and the basins often lie between fault-block mountain ranges. It includes the hot, moist, basin shrublands and grasslands. The environment occurs on closed-basin lake margins and valley bottoms, on **playas** which are annually flooded, as well as in desert stream floodplains. It is found largely in the southern sections of the CRB, and includes three different types of habitats. The most significant are the seasonally **flooded**, alkaline **bottomlands**. *Sarcobatus vermiculatus* usually is the only shrub dominating these open **playas**, but sometimes can be codominant with *Atriplex confertifolia*. Either *Distichlis spicata* or *Leymus cinereus* often provide significant cover in the understory, and often form grassland associations in **shrub-free areas**. *Leymus triticoides* and *Suaeda moquinii* are also alkaline bottomland types that occur only in the Lahontan Basin and Northwest Basin and Range sections of the CRB. The second group of habitats in this bioenvironment occur in less alkaline areas, with streams removing some of the moisture. Vegetation includes the warmest *Artemisia cana* **playas** with *L. cinereus* or *Muhlenbergia richardsonis* in the understory. The third group includes the deep-soiled, seasonally-flooded **valley bottoms** usually dominated by *Artemisia tridentata* ssp. *tridentata*, sometimes codominant with *S. vermiculatus*. These can have *L. cinereus*, *Festuca idahoensis*, *Stipa comata*, or *Pseudoroegneria spicata* as the major grasses. This last group also has some grassland series including *Sporobolus cryptandrus*, *Stipa pulchra*, and *Aristida longiseta*.

VERY HOT, VERY DRY SALT-DESERT SHRUB (COARSE-LEVEL CLASS 5,4)

This bioenvironment includes the hot and dry basins and slopes, which receive sufficient moisture to support some bunchgrass and forb production. The environment includes flats, gentle slopes and some steeper gradients, on all aspects. Substrates are generally sandy, gravelly or stoney silts, or unconsolidated ashes. *Sarcobatus vermiculatus*, *Atriplex confertifolia*, *A. canescens* and *Krascheninnikovia lanata* characterize the important habitats. These salt desert shrubs are often codominant with *Artemisia tridentata* ssp. *wyomingensis* or *A. nova* in this environment. They occur on gentle slopes and flats, and on the margins of the dry **playas**. The soils are usually deep and alkaline, but associations found on stony or sandy soils do occur. Important grasses of the southern sections include *Oryzopsis hymenoides*, *Elymus elymoides*, and *Poa secunda*, occurring between salt-desert shrubs and as associations. The *Leymus ambiguous*-*Enceliopsis nudicaulis* association represents this bioenvironment in the Beaverhead Mountains and Challis **Volcanics** sections.

This bioenvironment generally occurs on the margins of the basins in the southern sections of the CRB, and is generally less significant than either the wetter, seasonally flooded basins (CLC 5,3), or the driest of the basins (CLC 5,5).

VERY HOT, ARID SALT-DESERT SHRUB (COARSE-LEVEL CLASS 5,5)

The hottest and driest habitats in the **CRB** define this bioenvironment. They dominate many of the low, hot basins of Nevada, southeastern Oregon, southern Idaho and northwestern Utah. They are characterized by widely spaced, tall shrubs on **playas**, barrens or low dunes. Salt desert shrubs are **the only** important species, with *Sarcobatus vermiculatus* (both *S. v. var. vermiculatus* and *S. v. var. baileyi*) and *Atriplex confertifolia* being the most significant. *Grayia spinosa*, *Atriplex nuttallii*, *Psoralea polydenius* var. *polydenius*, *Ephedra nevadensis* and *Allenrolfea occidentalis* associations are also included within the class. The sparse understory is often barren, or characterized by isolated plants of *Oryzopsis hymenoides*, *Elymus elymoides*, *Sporobolus airoides*, *Lycium shockleyi*, *Kochia americana*, *Nitrophila occidentalis*, *Suaeda nigra* and desert annuals.

APPENDIX 7.

Coarse level PV **classification**: Distribution of section level PV **classes**, as grouped at the regional level, in the coarse temperature-moisture gradient matrix. **The** forest, **shrubland** and **herbland** section PV **classes** are shown for each coarse class.

COLD
(1)

WET
(1)

COARSE CLASS 1,1					
FORESTS F 1,1		SHRUBS S 1,1 1,2		HERBS H 1,1 1,2 2,2	
Sections	Classes	Sections	Classes	Sections	Classes
		342B-E	1,1	342B-E	1,1 1,2 2,2
M242C	1,1	M242C	1,1 1,2	342B-W	1,1 2,2 2,3
M331A	1,1	M261G	1,1	M242C	1,1 1,2 2,3
M331D	1,1	M331A	1,1	M261G	1,1 2,2 3,3
M331J	1,1	M331J	1,1	M331A	1,1 1,2 2,2
M332A	1,1 1,2	M332A	1,1	M331D	1,3 1,4 2,4
M332B	1,1 1,2	M332B	1,1	M331J	1,2 2,2
M332C	1,1	M332C	1,1 1,2	M332B	1,1 2,2 2,3
M332D	1,1	M332D	1,1 1,2	M332C	1,1 1,3
M332E	1,1	M332E	1,1	M332D	1,1 1,3 2,2 3,2
M332F	1,1	M332F	1,1	M332E	1,1 1,2 2,2
M332G	1,3	M333A	1,2 2,1	M332F	1,1 1,2 2,2
M333A	1,1 1,2	M333B	1,1 1,2	M332G	1,1 1,3 2,2 2,3 2,4
M333B	1,1 1,2	M333C	1,1 1,2	M333A	1,1 1,2 1,3
M333C	1,1 1,2	M333D	1,1 1,2	M333B	1,1 1,2 2,2 3,3
M333D	1,1			M333C	1,1 1,2 2,2 3,3
				M333D	1,1 1,2 2,3

MOIST
(2)

COARSE CLASS 1,2					
FORESTS F 1,2		SHRUBS		HERBS	
Sections	Classes	Sections	Classes	Sections	Classes
M242C	1,2	NONE		NONE	
M331A	1,2				
M331D	1,2				
M331J	1,2 2,2				
M332B	1,3				
M332C	1,2				
M332D	1,2				
M332E	1,2				
M332G	2,2				
M333A	1,3				
M333D	1,2				

COLD
(1)

DRY
(3)

VERY DRY
(4)

COARSE CLASS 1,3						COARSE CLASS 1,4					
FORESTS F 1,3		SHRUBS S 1,3		HERBS H 1,3		FORESTS F 1,4		SHRUBS S 1,4 2,4		HERBS H 1,4 2,4	
Sections	Classes	Sections	Classes	Sections	Classes	Sections	Classes	Sections	Classes	Sections	Classes
342C	1,3	M242C	2,4			M242C	1,4	342B-E	2,4	M332C	1,4
M242C	1,3	M261D	2,3	342B-W	1,2	M261D	1,4	342D	2,4	M332D	1,4 2,4
M261D	1,2	M261G	1,2	M242C	1,3 1,4	M261G	1,4	M261G	1,4	M332E	1,4 2,4
M331A	1,3	M332A	2,3	M331A	1,3	M331A	1,4 2,4	M331A	1,4	M332F	1,4 2,4
M331D	1,3	M332C	1,3 3,3	M331J	1,3	M331D	1,4	M332E	1,4		
M331J	1,3	M332D	1,3 3,3	M332A	1,3	M331J	1,4	M332F	1,4		
M332A	1,4	M332E	1,2	M332E	1,3	M332B	1,4				
M332C	1,3	M332F	1,2	M332F	1,3	M332C	1,4				
M332D	1,3					M332D	1,4				
M332E	1,3					M332E	1,4				
M332F	1,2 1,3					M332F	1,4				
M332G	1,4					M333A	1,4				
M333B	1,3					M333B	1,4				
M333C	1,3					M333C	1,4				
M333D	1,3					M333D	1,4				

**WET
(1)**

**MOIST
(2)**

**COOL
(2)**

COARSE CLASS 2,1						COARSE CLASS 2,2					
FORESTS F 2,1		SHRUBS S 2,1		HERBS H 2,1		FORESTS F 2,2		SHRUBS		HERBS	
Sections	Classes	Sections	Classes	Sections	Classes	Sections	Classes	Sections	Classes	Sections	Classes
342B-E	1,1	342B-E	2,1	341E	2,1	341E	1,2				
342C	1,1	342B-W	1,1 2,1	342B-E	2,1	342C	1,2 2,1 2,2	NONE		NONE	
M242C	2,1 3,1	342C	2,1	342B-W	2,3	M242C	2,2 3,2				
M331A	2,1	342D	2,1	342C	2,1	M261G	2,1				
M331D	2,1	M242C	2,1	342D	2,1	M331A	2,2				
M331J	2,1 3,1	M261D	3,1	M242C	2,1 2,2	M331D	2,2				
M332A	2,1 3,1	M261G	2,1	M261D	2,1	M331J	3,2				
M332B	2,1 3,1	M331A	2,1	M261G	2,1	M332A	2,2 2,3				
M332C	2,1 3,1	M331D	1,1 2,1	M331A	2,1	M332B	2,2 3,2				
M332D	2,1	M331J	2,1	M331D	1,1 1,2	M332C	2,2				
M332E	2,1	M332A	2,1	M332A	2,1	M332D	2,2				
M332F	2,1	M332B	2,1 2,2	M332B	1,1 2,1 3,1	M332E	2,2				
M332G	2,1	M332C	2,1 2,2	M332C	1,2	M332F	2,2				
M333A	2,1	M332D	2,1 2,2	M332D	1,2 2,1	M332G	2,3				
M333B	2,1 3,1	M332E	2,1	M332E	2,1	M333A	2,2 3,1				
M333C	2,1 3,1	M332F	2,1	M332F	2,1	M333B	2,2 3,2				
M333D	2,1 3,1	M333A	1,1	M333A	2,1 3,1 3,2	M333C	2,2				
		M333B	2,1 2,2	M333B	2,1	M333D	2,2				
		M333C	2,1	M333C	2,1						
		M333D	2,1	M333D	2,1 2,2 3,1						

COOL
(2)

DRY
(3)

VERY DRY
(4)

COARSE CLASS 2,3						COARSE CLASS 2,4					
FORESTS F 2,3		SHRUBS		HERBS		FORESTS F 2,4		SHRUBS		HERBS	
Sections	Classes	Sections	Classes	Sections	Classes	Sections	Classes	Sections	Classes	Sections	Classes
341E	1,3					M242C	2,4				
342B-E	1,2	NONE		NONE		M331D	2,4	NONE		NONE	
342B-W	1,2					M331J	2,4				
M242C	2,3					M332D	2,4				
M261D	1,3 2,1 2,2					M332E	2,3				
M261G	1,1 1,2 1,3 2,2 2,3					M333A	2,4				
M331A	2,3 3,2					M333B	2,4				
M331D	2,3										
M331J	2,3										
M332A	1,3 2,4										
M332B	2,3										
M332C	2,3										
M332D	2,3										
M332F	2,3										
M332G	2,4										
M333A	2,3										
M333B	2,3										
M333C	2,3										
M333D	2,3										

226

MOIST
(2)

|| COARSE CLASS 3,2

HERBS

Sections	Classes
----------	---------

[illegible]

WARM
(3)

DHY
(3)

VERY DRY
(4)

WARM
(3)

[illegible]

WET
(1)

MOIST
(2)

HOT
(4)

COARSE CLASS 4,1

FORESTS F 4,1

Sections Classes

SHRUBS S 4,1

Sections Classes

HERBS H 4,1 4,2

Sections Classes

COARSE CLASS 4,2

FORESTS F 4,2

Sections Classes

SHRUBS S 2,2

Sections Classes

HERBS H 2,3 3,2

Sections Classes

331A	1,1 2,1 3,1 4,1	331A	3,3	341E	4,1 4,2	331A	2,2	341E	1,2	331A	2,2 2,3
341E	4,1	341E	4,1	342B-E	4,1 4,3	342C	3,3 3,4	342B-E	1,2 2,2	341E	3,2 3,3
342B-E	3,1 4,1	342B-E	4,1	342B-W	4,1 4,2	342H	1,3	342B-W	1,3 2,2	342B-E	3,2
342B-W	3,1 4,1	342B-W	4,1	342C	4,2	M242C	4,2 4,3	342C	1,2 2,2	342B-W	3,2
342C	4,1	342D	4,1	M242C	4,1	M261D	4,2	342D	1,2	342C	2,2 3,3
342H	2,1 3,1 4,1	342I	2,1 3,1	M261D	4,1	M261G	4,3	342H	1,1 2,2	342D	3,2
342I	3,1 4,1	M261G	4,1	M261G	3,2 4,1	M333A	4,3 4,4	342I	2,2	342I	1,1 2,2
M261D	4,1	M331D	4,1	M331A	4,1			M242C	2,3	M242C	3,3
M332A	4,2	M332A	4,1	M332B	4,1			M261D	2,2	M331A	2,3 3,2 3,3
M332D	4,1	M332C	4,1	M332C	4,2			M261G	2,2 2,3 3,3	M331D	2,3
M332G	3,1	M332D	4,1	M332D	4,1 4,2			M331A	2,2 2,3	M331J	3,3
M333A	4,1	M332E	4,1	M332F	4,1			M331D	1,3 2,2 2,3	M332B	3,3
		M332F	4,1	M332G	4,2			M331J	2,2 2,3 3,2 3,3	M332C	3,3
		M333B	3,2 4,2	M333B	4,1			M332A	4,4	M332D	2,3 3,3
		M333C	3,2	M333C	4,1			M332B	3,3	M332E	2,3 3,3
		M333D	3,2 4,2	M333D	4,1			M332C	2,3 3,2	M332F	2,3
								M332D	2,3 3,2	M332G	3,3
								M332E	2,2	M333A	2,3 3,3
								M332F	1,3 2,2	M333B	2,3 3,4 4,3
								M332G	3,3 4,3	M333C	2,3 3,4 4,4
								M333A	3,3	M333D	3,3 3,4 4,3
								M333B	3,3		
								M333C	2,2 3,3		
								M333D	3,3		

DRY
(3)

VERY DRY
(4)

HOT
(4)

COARSE CLASS 4,3						COARSE CLASS 4,4					
FORESTS F 4,3		SHRUBS S 3,2		HERBS H 3,3		FORESTS F 4,4		SHRUBS S 2,3 3,3		HERBS H 3,4	
Sections	Classes	Sections	Classes	Sections	Classes	Sections	Classes	Sections	Classes	Sections	Classes
331A	3,2	342B-E	3,2	331A	3,3	341E	3,3 4,4	331A	4,3	331A	3,4 4,4
342B-E	3,3	342B-W	3,2	342B-E	3,4	342B-E	3,4 4,4	341E	1,3 2,2 2,3	342C	4,3
342B-W	3,3 4,3	342D	3,2	342B-W	3,3 3,4	342B-W	3,4 4,4	342B-E	1,3 1,4	342H	3,3 3,4 4,3
342H	2,3	342H	4,2	342C	2,3	342C	4,3 4,4		2,3 3,3 3,4 4,2	342I	3,3 4,4
342I	2,3 4,4	342I	3,2	342D	2,3	342H	3,3 3,4 4,3 4,4	342B-W	1,2 1,4 2,3	M242C	4,4
M242C	4,4	M242C	4,3	342H	2,2	M261D	4,4	342C	1,1 1,3 2,3 3,2	M261G	4,3 4,4
M261D	4,3	M331A	3,2 3,3	342I	3,2	M261G	4,4	342D	2,2 2,3 3,3	M331A	4,4
M331A	4,4	M331D	3,4	M242C	4,3	M331D	4,4	342H	3,2 3,3	M331J	4,4
M331J	4,4	M332C	4,2	M261G	3,4	M332E	4,4	342I	2,3 2,4 3,3 3,4	M332C	4,4
M332A	4,4	M333D	4,4	M331A	3,4 4,3			M242C	1,3 1,4 3,3	M332D	4,4
M332B	4,4			M332B	4,4				3,4 4,4	M332E	3,4
M332C	3,4 4,4			M332C	4,3			M261D	1,3 3,2	M332F	3,4
M332D	4,4			M332D	4,3				3,3 3,4 4,3	M332G	3,4 4,4
M332G	4,3 4,4							M261G	3,4 4,3	M333B	4,4
								M331A	2,4 4,4	M333D	4,4
								M331D	2,4 3,3 4,3		
								M331J	4,4		
								M332B	3,4 4,4		
								M332C	2,4 4,4		
								M332D	2,4 3,4 4,4		
								M332E	2,3 3,3 3,4		
								M332F	2,3 3,3		
								M332G	4,4		
								M333A	2,4 4,3 4,4		
								M333B	4,4		

VERY HOT
(5)

COARSE CLASS 5,3						COARSE CLASS 5,4					
FORESTS		SHRUBS S 4,2		HERBS H 4,3		FORESTS		SHRUBS S 4,3		HERBS H 4,4	
Sections	Classes	Sections	Classes	Sections	Classes	Sections	Classes	Sections	Classes	Sections	Classes
		341E	3,2	331A	3,2 4,3			341E	4,2	341E	4,4
NONE		342B-W	4,2	341E	4,3	NONE		342B-E	4,3	342B-W	4,4
		342C	4,1 4,3	342B-W	4,2 4,3			342C	3,4 4,4	M332E	4,4
		342H	4,1	342C	3,2			342D	4,4	M332F	4,4
		342I	4,3	342H	4,1			M332D	4,3		
		M261G	4,2	342I	4,2 4,3			M332E	4,3		
		M332D	4,2	M261D	4,4						
		M333A	4,2	M261G	4,2						
				M331D	4,4						
				M332G	4,3						

ARID
(5)

HOT
(4)

COARSE CLASS 4,5

FORESTS		SHRUBS s 3.4		HERBS	
Sections	Classes	Sections	Classes	Sections	Classes
		331A	3,4 4,4		
NONE		341E	3,3 3,4	NONE	
		3428-W	2,4 3,3 3,4		
		342C	2,4 3,3		
		342D	3,4		
		342H	3,4 4,3 4,4		
		342I	4,4		
		M261G	2,4		
		M331D	4,4		
		M332E	4,4		
		M332F	4,3 4,4		

VERY HOT
(5)

COARSE CLASS 5,5

FORESTS		SHRUBS s 4.4		HERBS	
Sections	Classes	Sections	Classes	Sections	Classes
		341E	4,3 4,4		
NONE		342B-E	4,4	NONE	
		3428-W	4,3 4,4		
		M261G	4,4		

APPENDIX 8.

List of plant associations in all section level classes, section by section, including vegetation-site rules model calibration.

331A PALOUSE PRAIRIE S E C - I - I O N

TEMP	MOIS	PLANT ASSOCIATIONS	VEGETATION-SITE RULES		
COLD-1	WET-1		ELEVATION (m)	ASPECT	SLOPE

FORESTS

1	1	PIPO/CRDO2		NOT MAPPED	
1	2	ABGR/CLUN2	1220-1828	FLAT,NE	LT30
	2	ABLA/CLUN2			
1	2	THPL/CLUN2			
1	3	PSME/PHMA5	1067-1676	ALL	LT60
2	1	ALRH2-ABGR			
2	2	PIPO/FESC	762-1676	ALL	LT30
2	2	PIPO/PHMA5			
2	2	PIPO/SYAL			
3	1	ALRH2/AMAL2	458-1219	FLAT,SW	LT30
3	1	ALRH2/BEOC2			
3	1	POTR15-ALRH2			
3	1	POTR15/CIDO			
3	1	SALUL			
3	2	PIPO/FEID	305-1219	ALL	LT30
3	2	PIPO/PSSP6			
4	1	ALRH2/CELAR		NOT MAPPED	

SHRUBLANDS

3	3	CRDO2/HELA4	762-1219	FLAT,SW	LT30
3	3	CRDO2/SYAL			
3	4	ARRI2/POSE	153-304	SW	5-29
3	4	ERNI2/POSE			
4	3	CELAR/PSSP6		NOT MAPPED	
4	3	GLNE3/PSSP6			
4	3	RHGL/PSSP6			
4	4	ERMI4-PHOR2		NOT MAPPED	
4	4	ERSP7-POSE			

HERBACEOUS

1	2	DECE		NOT MAPPED	
2	2	PSSP6-ERHE2	458-1676	ALL	LT60
2	2	FESC-FEID			
2	3	FEID/SYAL	458-1676	ALL	LT60
2	3	RONU/FEID			
2	3	FEID-KOMA			
2	3	CAHO5-FEID			
3	1	CANE2		NOT MAPPED	
3	2	LECI4	305-1219	ALL	LT30
3	3	PSSP6-FEID (CANYON)	153-1676	ALL	LT60
3	3	PSSP6-FEID (PALOUSE)			
3	3	PSSP6-BASA3-POSE			
3	4	STCO4-POSE	610-761	SW	5-29
4	3	SPCR-POSE	153-457	FLAT,SW	LT30
4	3	ARLO3-POSE			
4	4	PSSP6-POSE	153-914	FLAT,SW	LT60
4	4	PSSP6-OPPO-(POSE)			

TEMP MOIS VEGETATION-SITE RULES
C O L D - 1 W E T - 1 PLANT ASSOCIATIONS ELEVATION (m) ASPECT SLOPE

FORESTS

1	2	POTR5/SYOR2/TALL FORB	2439-2590	NE	30-59
1	3	POTR5/ARTR2	2134-2438	NE	30-59
3	3	JUOS/PSSP6	2134-2438	FLAT,SW	LT60
3	3	JUOS/ARTR2			
3	3	JUOS/ARTR2/ORHY			
4	1	POFR2/SAGE2		NOT MAPPED	
4	4	JUOS	1982-2133	SW	5-59
4	4	JUOS/BARREN			
4	4	JUOS/ARNO4/ROCK			
4	4	JUOS/ARNO4			

SHRUBLANDS

1	2	ARTRV/LECI4	1677-2895	ALL	ALL
1	3	CELE3/ARTR2	2439-2895	NE	5-59
1	3	CELE3/PSSP6			
2	2	ARTRT/FEID	1677-2743	ALL	LT60
2	2	ARTRV/PSSP6			
2	3	ARTRT/PSSP6	1524-2590	ALL	LT60
3	1	SALA6/BARREN			
3	1	SALA6/ROWO/GRASS-FORB			
3	2	ARTRT/LECI4	1677-1931	FLAT	FLAT
3	3	GRSP-EPVI	1220-1981	ALL	LT60
3	3	GRSP-PRAN2			
3	3	ARNO4/HIJA			
3	3	ARNO4/PSSP6			
3	3	ATCA2-KRLA2			
3	3	ATCA2-ARTR2			
3	3	ARTRW8/PSSP6			
3	4	ATCO/HIJA	1220-1828	NE,SW	5-59
3	4	GRSP-ARSP5			
3	4	GRSP-LYAN			
3	4	ARNO4/ORHY			
3	4	ARNO4/STCO4			
3	4	ATCA2/ORHY			
3	4	ARTRW8-ATCO			
4	1	SAEX		NOT MAPPED	
4	2	SAVE4-CHNA2	1067-1676	FLAT	FLAT
4	3	ALOC2	1067-1523	FLAT,NE	LT30
4	3	ATCO-ARSP5-SAVE4			
4	3	ATCO-KRLA2			
4	3	SAVE4			
4	3	SAVE4 (DUNE)			
4	3	KRLA2			
4	3	ATCA2/SPAI			
4	4	ATCO	915-1523	NE,SW	5-59
4	4	ATCO/ARSP5			
4	4	ATCO/ARSP5/KRLA2			
4	4	ATCO/ARSP5/ORHY			
4	4	ATCO-EPNE			
4	4	ATCO/KOAM			

341E LAHONTAN BASIN SECTION

TEMP COLD-1	MOIS WET-1	PLANT ASSOCIATIONS	VEGETATION-SITE RULES ELEVATION (m)	ASPECT	SLOPE
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4	4	ATCO-LYSH			
4	4	ATCO/ORHY			
4	4	SAVE4/ATCO/ARSP5			
4	4	SAVE4/ORHY			
4	4	PSPOP/ORHY			

HERBACEOUS

2	1	CAR06			NOT MAPPED
3	1	CANE2			NOT MAPPED
3	2	PONE3			NOT MAPPED
3	3	LETR5-CAREX			NOT MAPPED
3	3	JUBA			
3	3	CADO2			
4	1	SCAM2			NOT MAPPED
4	1	SCPU3			
4	1	ELPA3			
4	1	ELPA3-JUBA			
4	1	TYDO			
4	1	TYLA			
4	2	ELPA3-DISP			NOT MAPPED
4	3	DISP	915-1066	FLAT	FLAT
4	3	SPAI-DIST3			
4	3	SUMO			
4	4	ORHY SERIES			NOT MAPPED

342B-E NORTHWESTERN BASIN & RANGE SECTION: EASTERN PORTION

TEMP	MOIS	PLANT ASSOCIATIONS	VEGETATION-SITE RULES	ASPECT	SLOPE
COLD-1	WET-1		ELEVATION (m)		
FORESTS					
1	1	ABLA/STAM2		NOT MAPPED	
1	1	PICEA/COSE16			
1	1	PICEA/EQAR			
1	2	ABLA/RIMO2	2286-3200	ALL	LT60
1	2	ABWCARU			
1	2	ABLA/ACGL			
1	2	ABLA/MARE11			
1	2	ABLA/CARO5			
1	2	ABLA/ACRU2			
1	2	ABLA/VAGL			
1	2	ABWOSCH			
1	2	ABLA/PERA4			
1	2	ABLA/PHMA5			
1	3	PSME/MARE11	2134-2285	NE	30-59
1	3	PSME/CARU			
1	3	POTR5/SHCA			
2	1	ALIN2/COSE16		NOT MAPPED	
2	1	ALIN2/MESIC FORB			
2	1	ALIN2/MESIC GRAMINOID			
2	2	PSME/ACGL		NOT MAPPED	
2	2	PSME/OSCH			
2	2	POTR5/AMAL2-SYOR2/TALL FORB			
2	3	PSME/SYOR2	1982-2590	NE	5-59
2	3	PSME/PHMA5			
2	3	POTR5/TALL FORB			
2	3	POTR5/SYOR2/TALL FORB			
2	3	POTR5/SYOR2/THFE			
2	3	POTR5/AMAL2/TALL FORB			
2	3	POTR5/SYOR2/CARU			
2	3	POTR5/AMAL2-SYOR2/CARU			
3	1	BEOC2/COSE16		NOT MAPPED	
3	1	BEOC2/MESICFORB			
3	2	POTR5/WYAM		NOT MAPPED	
3	2	POTR5/THFE			
3	2	POTR5/AMAL2-SYOR2/THFE			
3	2	POTR5/AMAL2/THFE			
3	3	ACGR3/CARU		NOT MAPPED	
3	3	PSME/CELE3			
3	3	PIFL2/CELE3			
3	3	PIFL2/MARE11			
3	4	PIMO-JUOS/CELE3/PSSP6	1677-2438	ALL	LT60
3	4	JUOS/PUTR2-SYOR2/PSSP6			
3	4	PIMO-JUOS/ARTRV/PSSP6			
3	4	PIMO-JUOS/LECI4			
3	4	PIMO-JUOS/PRVI			
4	1	ACNE2/COSE16		NOT MAPPED	
4	1	ACNE2/EQAR			
4	1	POAN3/BEOC2			
4	1	POAN3/COSE16			
4	1	POAN3/ACGR3			

342B-E NORTHWESTERN BASIN & RANGE SECTION: EASTERN PORTION

TEMP	MOIS	PLANT ASSOCIATIONS	VEGETATION-SITE RULES		
COLD-1	WET-1		ELEVATION (m)	ASPECT	SLOPE

4	4	JUOS/ARTR2	X220-2133	ALL	LT30
4	4	JUOS/STCO4			

SHRUBLANDS

1	1	PEFL15/DECE	2591-3047	FLAT	
1	1	SAWO/CAAQ			
1	1	SAWO/DECE			
1	1	SAWO/MESICFORB			
1	2	CELE3/SYOR2	x29-2895	ALL	LT60
1	3	CELE3/PSSP6	X29-2590	ALL	LT60
1	3	ARTRV-SYOR2/FEID			
1	3	ARTRV-SYOR2/BRCA5			
1	4	ARTRV-SYOR2/PSSP6	2134-2285	NE	30-59
2	1	ARCAWDECE	2134-2743	FLAT	FLAT
2	1	COSE16/HELA4			
2	1	SAGE2/CARO6			
2	1	SAGWCAAQ			
2	1	SAGE2/MESIC GRAMINOID			
2	1	SAGE2/MESICFORB			
2	1	SABO2/MESIC GRAMINOID			
2	1	SABO2/MESICFORB			
2	1	SABO2/EQAR			
2	1	SABO2/CANE2			
2	1	SABO2/CACA4			
2	1	SABO2/CARO6			
2	1	SABO2/CAAQ			
2	2	ARTRV/FEID	1982-2590	ALL	LT60
2	2	ARTR4/FEID			
2	2	ARTR4/PSSP6			
2	3	ARTRV/PSSP6	1829-2438	ALL	LT60
2	3	ARTRV/LECI4			
2	4	ARARL/FEID		NOT MAPPED	
3	1	SAEXMESIC GRAMINOID	1220-2133	FLAT	FIAT
3	1	ROWO			
3	2	ARTR2/FEID	1220-2133	ALL	LT60
3	3	ARTRW8/PSSP6	1220-2133	ALL	LT60
3	4	ARAR8/FEID	1220-1828	ALL	LT30
4	1	SAEX/BARREN	1220-1828	FLAT	
4	1	SAEX/MESICFORB			
4	1	SAEX/MESIC GRAMINOID			
4	2	ARTRT/PSSP6	1220-1523	FIAT	FLAT
4	2	ARTRT/FEID			
4	3	ATCO/ELEL5	1220-1676	ALL	LT30
4	3	ARNO4/ORHY			
4	3	ARNO4/PSSP6			
4	3	SAVE4			
4	4	ARAR8/STTH2	1220-1523	ALL	LT30
4	4	ARAR8/PSSP6			
4	4	ATCO			

342B-E NORTHWESTERN BASIN & RANGE SECTION: EASTERN PORTION

TEMP MOIS VEGETATION-SITE RULES
C O L D - 1 W E T - 1 PLANT ASSOCIATIONS ELEVATION (m) ASPECT SLOPE

HERBACEOUS

1	1	ELQU2	NOT MAPPED
1	1	MECI3	
1	1	CASC12	
1	2	FEID	NOT MAPPED
1	2	ELGL	
1	2	FEOV	
2	1	DECE	NOT MAPPED
2	1	CAAQ	
2	1	CARO6	
2	1'	AGST2	
2	1	POCU3	
2	2	FEJD-SYAL	NOT MAPPED
3	1	CANE2	NOT MAPPED
3	1	CAMI7	
3	1	CALA30	
3	1	JUBA	
3	1	CASK!	
3	2	PONE3-PULE-ELEL5	NOT MAPPED
3	4	PSSP6-STCO4	NOT MAPPED
3	4	PSSP6-BASA3-POSE	
4	1	TYLA	NOT MAPPED
4	1	ELPA3	
4	3	DISP-(SCNE)	NOT MAPPED
4	3	LEC14	
4	3	LETR5-POSE	

342B-W NORTHWESTERN BASIN & RANGE SECTION: WESTERN PORTION

TEMP	MOIS		VEGETATION-SITE RULES		
C O L D - 1	W E T - 1	PLANT ASSOCIATIONS	ELEVATION (m)	ASPECT	SLOPE

FORESTS

1	1	POTR5/CAREX		NOT MAPPED	
1	2	POTR5/SYAL/ELGL	2286-2895	NE	5-59
1	3	ABCO/MARE11	2134-2743	NE,SW	5-59
2	1	POTR15/COSE16		NOT MAPPED	
2	1	ALIN2/CAREX			
2	1	ALIN2-POTR5/COSE16			
2	1	ALIN2/SYAL			
2	1	ALIN2-POTR15/SALIX/CAREX			
2	1	ALIN2-BEOC2/(SALIX)			
2	2	PIPO/ARPA6		NOT MAPPED	
2	3	JUOC/ARTR2/FEID	1372-2743	ALL	LT60
2	3	JUOC/ARAR8/FEID			
2	3	PIMO/ARTR2			
2	3	PIMO/CELE3			
3	1	POTR15/COSE16	2134-2438	NE	3 0 - 5 9
3	1	BEOC2/POTR15/SALIX			
3	2	PIPO-QUKE SERIES		NOT MAPPED	
3	2	QUKE			
3	3	JUOC/CELE3/PSSP6	1372-2590	ALL	LT60
3	3	JUOC/FEID			
3	3	JUOC/ARTR2-PUTR2/PSSP6-FEID			
3	3	PIMO-JUOS/ARTR2			
3	4	PIMO-JUOS/ARAR8	1372-2285	NE,SW	5-59
3	4	JUOC/PSSP6			
3	4	JUOC/ARAR8/PSSP6			
3	4	JUOC/ARTR2/PSSP6			
4	1	POFR2/SAGE2	915-1066	FLAT	'FLAT
4	'1	POAN3/COSE16			
4	3	PIPO/PUTR2/ORHY	1677-1981	NE	30-59
4	4	JUOC/ARRI2/POSE	1220-2133	NE,SW	5-59
4	4	JUOC/ARAR8/DAUN-POSE			
4	4	JUOS/BARREN			
4	4	JUOS/ARNO4			
4	4	JUOS/ARNO4/ROCK			

342B-W NORTHWESTERN BASIN & RANGE SECTION: WESTERN PORTION

TEMP MOIS VEGETATION-SITE RULES
C O L D - 1 W E T - 1 PLANT ASSOCIATIONS ELEVATION (m) ASPECT SLOPE

SHRUBLANDS

1	1	SADR		NOT MAPPED	
1	2	CELE3/SYOR2	2134-2590	ALL	LT60
1	2	ARTRV-CELE3/ELCA-POSE			
1	2	ARTRV/CAGE2			
1	3	ARAR8/FEID	1372-2743	ALL	LT60
1	3	ARTRV/FEID			
1	3	ARTRV/BRCA5			
1	3	CELE3/PSSP6-FEID			
1	3	ARAR8-CELE3/PSSP6-POSE			
1	3	PUTR2/FEID			
1	4	ARTR2/FEID		NOT MAPPED	
1	4	CELE3/ARTR2			
2	1	SABO2-SAGE2		NOT MAPPED	
2	1	SABO2/CARO6			
2	1	SABO2-SALE			
2	1	SAGE2-SARI2			
2	1	SAGE2-SALE			
2	1	SARI2/RIAU			
2	1	SALI SERIES			
2	2	ARTR4/PSSP6	1067-2438	ALL	LT60
2	2	ARTR4/FEID			
2	2	ARTRW8-PUTR2/PSSP6			
2	2	ARTRW8-PERA4/FEID			
2	2	ARTRV/STOC2			
2	2	ARTRV/PSSP6			
2	2	CELE3/PRVI			
2	2	AMAL2/ARTR2/FEID			
2	2	ARPA6/CEVE-CEPR			
2	3	CELE3/PSSP6	915-2285	ALL	LT60
2	3	ARAR8/PSSP6			
2	3	- I D			
2	3	ARTRW8/PSSP6			
2	3	ARTRW8/STCO4			
2	3	ARTRW8/STTH2			
2	3	ARTRT/PSSP6			
2	3	ARRWPSSP6			
2	3	ARAR8/POSE			
2	4	SADO4/PSSP6	1220-2133	NE,SW	5-59
2	4	ARTRW8-ATCO			
2	4	ARTR2-EPVI			
3	1	SALA6/BARREN	1677-1981	FLAT	FLAT
3	1	SALA6/ROWO/GRASS-FORB			
3	1	ARCA13/(ELCA11)-PONE3			
3	1	ARCA13/LECI4			
3	2	PUTR2/ORHY	1067-2133	FLAT, NE	LT60
3	2	ARTR2-PUTR2/ORHY-STCO4			
3	2	ARTRT/FEID			
3	2	ARTRT/LECI4			
3	3	ARRI2/POSE	1067-1828	FLAT, SW	LT60
3	3	GRSP-EPVI			

342B-W NORTHWESTERN BASIN & RANGE SECTION: WESTERN PORTION

T E M P		MOIS	PLANT ASSOCIATIONS	VEGETATION-SITE RULES		SLOPE
C O L D - 1	W E T - 1			ELEVATION (m)	ASPECT	
3	3		GRSP-PRAN2			
3	3		ATCA2			
3	3		ATCA2-ARTR2			
3	3		ATCA2-KRLA2			
3	3		ATCA2/HIJA			
3	3		ARNO4/HIJA			
3	3		ARNO4/PSSP6			
3	3		ARNO4/ELEL5			
3	4		GRSP/ARSP5	1220-1676	ALL	LT60
3	4		GRSP/LYAN			
3	4		GRSP/ORHY			
3	4		GRSP/ARNO4/STSP3			
3	4		ATCA2/ORHY			
3	4		ATCO/HIJA			
3	4		ARN04			
3	4		ARNO4/ORHY			
3	4		ARNO4/STCO4			
4	1		SAEX	1220-1371	FLAT	FLAT
4	1		SAEX-SALUL			
4	2		SAVE4/LECI4	1067-1676	FLAT	FLAT
4	2		SAVE4/DISP			
4	2		SAVE4/CHNA2			
4	3		ATCA2/SPAI	1067-1676	ALL	LT30
4	3		ALOC2			
4	3		ATCO- SAVE4			
4	3		ATCO/ELEL5			
4	3		ATCO/ARSP5/SAVE4			
4	3		ATCO-KRLA2			
4	3		KRLA2/POSE			
4	3		SAVE4 (DUNE)			
4	3		SAVE4			
4	3		SAVE4/SUNI			
4	4		ATCO (COMM II)	1067-1676	NE,SW	5-59
4	4		ATCO/ARSP5			
4	4		ATCO/ARSP5/KRLA2			
4	4		ATCO/ARSP5/ORHY			
4	4		ATCO-EPNE			
4	4		ATCO/KOAM			
4	4		ATCO-LYSH			
4	4		ATCO/ORHY			
4	4		ATCO/TEGL			
4	4		SAVE4/ATCO/ARSP5			
4	4		SAVE4/ORHY			
4	4		SAVE4/ELEL5			
4	4		PSPOP/ORHY			

342B-W NORTHWESTERN BASIN & RANGE SECTION: WESTERN PORTION

TEMP	MOIS	PLANT ASSOCIATIONS	VEGETATION-SITE RULES		
COLD-1	WET-1		ELEVATION (m)	ASPECT	SLOPE

HERBACEOUS

1	1	CAN12		NOT MAPPED	
1	1	CASP5			
1	2	FEID	2286-2895	ALL	LT30
1	2	ELGL			
1	2	FEOV			
2	1	DECE		NOT MAPPED	
2	1	POCU3			
2	1	CAPR5-CAAQ			
2	2	FEID-SYAL		NOT MAPPED	
2	2	FEID			
2	3	JUBA-CAR05		NOT MAPPED	
3	1	CANE2	1372-1523	FLAT	FLAT
3	1	DECE-CAREX			
3	1	CAMI7			
3	2	PONE3-PULE-ELEL5		NOT MAPPED	
3	2	PONE3			
3	3	PSSP6-POSE		NOT MAPPED	
3	3	CADO2			
3	4	PSSP6-STCO4		NOT MAPPED	
3	4	PSSP6-BASA3-POSE			
4	1	TYLA		NOT MAPPED	
4	1	ELPA3			
4	1	ELPA3-JUBA			
4	2	ELPA3-DISP		NOT MAPPED	
4	3	DISP-(SCNE)		NOT MAPPED	
4	3	DISP			
4	3	JUBA			
4	3	LECI4			
4	3	LETR5-POSE			
4	3	SUMO			
4	4	ORHY SERIES		NOT MAPPED	

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OWYHEE UPLANDS SECTION

TEMP MOIS VEGETATION-SITE RULES
 'COLD-1 WET-1 PLANT ASSOCIATIONS ELEVATION (m) ASPECT SLOPE

FORESTS

1	1	ABLA/STAM2			NOT MAPPED
1	2	ABLA/CLUN2			NOT MAPPED
1	2	ABLA/VAGL			
1	3	ABLA/CAGE2			NOT MAPPED
1	3	ABLA/VASC			
2	1	POTR5/SYAL/ELGL			NOT MAPPED
2	1	POTR5/CAREX			
2	2	ABGR/CLUN2			NOT MAPPED
2	2	PSME/OSCH			
2	2	PSME/SYAL			
2	2	ABGR/VAGL			
2	3	ABGR/CARU	1829-2438	FLAT,NE	LT60
2	3	ABGR/ACGL			
2	3	ABGR/SPBE2			
2	3	ABGR/VACE			
2	3	PSME/CARU			
2	3	PSME/CAGE2			
2	3	PSME/PHMA5			
2	3	PSME/SPBE2			
3	1	POTR5/SASC	610-761	FLAT	FLAT
3	3	PIPO/SYAL			NOT MAPPED
3	4	PIPO/SYOR2	1524-1828	NE	5-59
3	4	PIPO/FEID			
3	4	PIPO/PSSP6			
3	4	PIPO/PUTR2			
3	4	PSME/FEID			
3	4	PSME/PSSP6			
3	4	JUOC/ARTRV			
3	4	JUOC/CELE3/PSSP6			
4	1	ALRH2/AMAL2	610-761	FLAT	FLAT
4	1	ALRH2/BEOC2			
4	1	ALRH2/CELAR			
4	1	ALRH2/PHLE4			
4	1	ALRH2/SACE3			
4	1	ALRH2-POTR15			
4	1	POTR5 SERIES			
4	3	JUOC/CELE3-SYOR2	1524-1828	ALL	LT60
4	3	JUOC/CELE3/CAGE2			
4	3	JUOC-PIPO/PUTR2			
4	4	JUOC/PSSP6			NOT MAPPED
4	4	JUOC/FEID			
4	4	JUOC/ARAR8/PSSP6			
4	4	JUOC/ARTR2/PSSP6			

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OWYHEE UPLANDS SECTION

TEMP	MOIS	PLANT ASSOCIATIONS	VEGETATION-SITE RULES		
COLD-1	WET-1		ELEVATION (m)	ASPECT	SLOPE

SHRUBLANDS

1	1	CELE3/SYOR2		NOT MAPPED	
1	1	CELE3/CARU			
1	1	ARTRV-CELE3/ELCA-POSE			
1	1	ARTRV/CAGE2			
1	1	ARTRV-SYOR2/FEID			
1	2	PHMA5-SYAL	1220-2438	ALL	LT30
1	2	ARTRV/BRCAS			
1	2	ARTRV/FEID			
1	2	PUTR2/FEID			
1	2	ARPA6/CEVE-CEPR			
1	2	ARTRV/LECI4			
1	3	PUTR2/ORHY	1220-2438	ALL	LT30
1	3	PUTR2/STCO4			
1	3	PUTR2/PSSP6			
1	3	ARTR2/FEID			
1	3	ARAR8/FEID			
2	1	ARCA13/CANE2-POCU3		NOT MAPPED	
2	2	ARTRV/PSSP6	1220-2285	ALL	LT60
2	2	CELE3/PSSP6			
2	2	ARTRW8-PERA4/FEID			
2	2	ARTRT/FEID			
2	3	ARTRW8/PSSP6	610-2133	ALL	LT60
2	3	ARTRW8/STCO4			
2	3	ARTRW8/STTH2			
2	3	ARTRT/PSSP6			
2	3	ARTR2/STCO4			
2	3	ARAR8/PSSP6			
2	4	ARNO4/POSE		NOT MAPPED	
2	4	ARNO4/PSSP6			
3	1	ARCA13/(ELCA11)-PONE3		NOT MAPPED	
3	2	GLNE3/PSSP6		NOT MAPPED	
3	2	ARTRT/FEID			
3	2	ARTRT/LECI4			
3	2	CELAR/PSSP6			
3	3	ARAR8/POSE	762-1828	ALL	LT30
3	3	ARRI2/POSE			
3	3	ERSP7-POSE			
3	3	ERTH4-POSE			
3	4	ATCO-ARSP5-SAVE4	915-1066	ALL	LT30
4	1	ARCA13/LECI4		NOT MAPPED	
4	1	ARCA13/MURI			
4	3	ATCO-SAVE4	610-1828	FLAT,NE	LT30
4	3	SAVE4/DISP			
4	3	SAVE4/LECI4			
4	3	SAVE4/SUNI			
4	4	ATCO/ORHY	610-1981	ALL	LT30
4	4	ATCO/PSSP6			
4	4	KRLA2/POSE			
4	4	ATCO/ELEL5			

342C OUYHEE UPLANDS SECTION

TEMP MOIS PLANT ASSOCIATIONS VEGETATION-SITE RULES SLOPE
COLD-1 WET-1 ELEVATION (m) ASPECT

HERBACEOUS

2	1	CAAQ	NOT MAPPED		
2	1	CAROB			
2	2	FEID-KOMA	NOT MAPPED		
2	3	PSSP6-FEID (CANYON)	NOT MAPPED		
3	1	CANE2	NOT MAPPED		
3	2	LEC14(BOTTOMLANDS)	NOT MAPPED		
3	3	PSSP6-BASA3-POSE	NOT MAPPED		
4	2	DISP-(SCNE)	NOT MAPPED		
4	2	JUBA			
4	3	PSSP6-OPPO-(POSE)	762-914	SW	5-59

342D SNAKE RIVER BASALTS SECTION

TEMP	MOIS	PLANT ASSOCIATIONS	VEGETATION--SITE RULES		
COLD- 1	WET-1		ELEVATION (m)	ASPECT	SLOPE

FORESTS

1	2	PIFL2/PUTR2		NOT MAPPED	
1	2	JUOS/PUTR2-SYOR2/PSSP6			
2	1	POAN3/COSE16		NOT MAPPED	
2	3	JUOS/ARTR2		NOT MAPPED	
3	2	JUOS/PSSP6		NOT MAPPED	

SHRUBLANDS

1	1	ALIN2/RIHU		NOT MAPPED	
1	2	ARTRV/FEID	1372-2438	ALL	LT60
1	2	ARTRV/PSSP6			
1	2	ACGR3/CARU			
2	1	PEFL15/DECE		NOT MAPPED	
2	1	ALIN2/COSE16			
2	1	SAGE2/CARO6			
2	1	SAGE2/MESIC FORB			
2	1	SAGE2/DECE			
2	1	SAGE2/MESIC GRAMINOID			
2	2	PUTR2/(PSSP6)-FEID	1524-2285	ALL	LT30
2	3	PUTR2/CHNA2	762-1523	FLAT,SW	LT30
2	3	CHNA2/LEFL4-PSLA3			
2	4	ARARL/FEID		NOT MAPPED	
3	1	SABO2/CARO6		NOT MAPPED	
3	1	SABO2/MAST4			
3	1	SABO2/CAAQ			
3	2	ARTR2/FEID	1829-2285	ALL	LT30
3	2	ARTR2/PSSP6			
3	2	ARTR2/STCO4			
3	2	ARCA13/MURI			
3	2	PUTR2/PRVI			
3	3	ARTR2/STCO4	762-2133	ALL	LT60
3	3	ARTRT/PSSP6			
3	3	ARTRW8/STTH2			
3	3	ARTRW8/PSSP6			
3	3	ARTRW8/STCO4			
3	4	ARAR8/POSE		NOT MAPPED	
3	4	ARAR8/PSSP6			
4	1	SAEX		NOT MAPPED	
4	4	ATCO/ORHY	1372-1828	ALL	LT30
4	4	ATCO/PSSP6			
4	4	KRLA2/POSE			
4	4	EROV			
4	4	ARNO4/POSE			

342D SNAKE RIVER **BASALTS** SECTION

TEMP	MOIS		VEGETATION-SITE RULES	
COLD- 1	WET-1	PLANT ASSOCIATIONS	ELEVATION (m) ASPECT	SLOPE

HERBACEOUS

2	1	CAR06	NOT MAPPED
2	1	CAAQ	
2	1	CASI2	
2	3	LEFL4	NOT MAPPED
3	1	CANE2	NOT MAPPED
3	1	ELPA3	
3	1	JUBA	
3	1	SCAC	
3	2	PASM	NOT MAPPED

342H HIGH LAVA PLAINS SECTION

TEMP	MOIS	PLANT ASSOCIATIONS	VEGETATION-SITE RULES		
COLD-1	WET-1		ELEVATION (m)	ASPECT	SLOPE

FORESTS

1	1	POTR5/SYAL/ELGL		NOT MAPPED	
1	1	ALIN2-POTR5/COSE16			
1	1	SAGE2-SARI2			
1	1	SAGE2-SALE			
1	1	ALIN2/COSE16			
1	1	SABO2/CARO6			
1	1	ALIN2-BEOC2/(SALIX)			
1	1	SABO2-SAGE2			
1	2	PIPO/CARU		NOT MAPPED	
1	2	PIPO/CAGE2			
1	2	ABGR/CARU			
1	2	PSME/SYAL			
1	2	PIPO-PSME/PUTR2			
1	2	PSME/VAGL			
1	3	JUOC-PIPO/PUTR2/(PSSP6)-FEID	1524-1981	ALL	LT60
2	1	SARI2/RIAU	458-1523	FLAT	FLAT
2	1	POTR15/CIDO			
2	1	BEOC2/CRDO2			
2	1	BEOC2-POTR15/SALIX			
2	3	JUOC/ARTR2-PUTR2/PSSP6-FEID	1220-1523	ALL	LT30
3	1	PRVI-SALIX/ROWO		NOT MAPPED	
3	1	SAAM2-SAF14-SALUL/CAREX			
3	1	SAAM2-SAEX-SALUL			
3	1	CRDO2/SYAL			
3	1	CRDO2/ROWO			
3	1	POTR15/COSE16			
3	3	JUOC/POSE-STOC2	915-1523	FLAT,NE	LT30
3	4	JUOC/ARAR8/FEID	610-1676	ALL	LT30
3	4	JUOC/ARTR2/FEID			
3	4	JUOC/FEID			
4	1	POTR15/SAEX		NOT MAPPED	
4	3	JUOC/ARTR2/CAFI	1220-1676	ALL	LT30
4	4	JUOC/ARRI2/POSE	610-1219	ALL	LT30
4	4	JUOC/ARTR2/PSSP6			
4	4	JUOC/ARAR8/PSSP6			
4	4	JUOC/PSSP6			

SHRUBLANDS

1	1	CELE3/PSSP6-FEID	915-1523	NE	5-59
1	1	PUTR2/(PSSP6)-FEID			
2	2	ARTR2/FEID	458-1523	ALL	LT60
2	2	ARAR8/FEID			
3	2	CELE3/PSSP6	610-1523	ALL	LT60
3	2	ARTRV/STOC2			
3	2	CELAR/PSSP6			
3	2	ARTRW8-PUTR2/PSSP6			
3	2	ARRI2/PSSP6			
3	3	ARTRW8/STTH2	458-1523	ALL	LT60
3	3	ARTRW8/PSSP6			
3	3	ARAR8/PSSP6			

342H HIGH LAVA PLAINS SECTION

TEMP COLD- 1	MOIS WET-1	PLANT ASSOCIATIONS	VEGETATION-SITE RULES ELEVATION (m) ASPECT	SLOPE
3	4	ERDO-POSE	NOT MAPPED	
3	4	ERSP7-POSE		
4	1	SAVE4/DISP	NOT MAPPED	
4	1	ARCA13/LECI4		
4	1	SAEX		
4	1	SAEX-SALUL		
4	2	ARTR2/LECI4	1220-1371	FLAT FLAT
4	3	ARAR8/POSE	305-1371	ALL LT60
4	3	ARRI2/POSE		
4	3	ARTRW8/STCO4		
4	4	SADO4/PSSP6	NOT MAPPED	

HERBACEOUS

1	1	CANE2	NOT MAPPED	
2	2	PSSP6-FEID (CANYON)	305-761	ALL LT60
3	3	PSSP6-BASA3-POSE	458-761	SW 5-59
3	3	PSSP6-POSE (LITHOSOL)		
3	3	PSSP6-ERHE2		
3	4	LOCO4-POSE	458-609	NE 5-29
3	4	(BASE2)-POSE		
4	1	LEC14(BOTTOMLANDS)	458-914	FLAT FLAT
4	1	DISP-(SCNE)		
4	3	PSSP6-OPPO-(POSE)	NOT MAPPED	

TEMP MOIS VEGETATION-SITE RULES
C O L D - 1 W E T - 1 PLANT ASSOCIATIONS ELEVATION (m) ASPECT SLOPE

FORESTS

1	1	POTR5/SYAL			NOT MAPPED
1	1	PIPO-PSME			
1	1	ALIN2			
2	2	PSME/SYAL	762-1676	ALL	LT30
2	2	PSME/PHMA5			
2	2	PSME/CARU			
2	3	PIPO-PSME/PSSP6	1220-1371	NE	s-29
3	1	ALRH2			NOT MAPPED
4	1	POTR15/COSE16	305-761	ALL	LT60
4	4	PIPO/FEID	762-1523	ALL	LT30
4	4	PIPO/PSSP6			
4	4	PIPO/PUTR2			
4	4	JUOC SERIES			
4	4	QUGA4 SERIES			

SHRUBLANDS

2	1	CRDO2/ROWO			NOT MAPPED
2	2	PUTR2/FEID	305-1523	ALL	LT60
2	2	ARTR4/FEID			
2	2	SYAL-RONU			
2	3	PUTR2/PSSP6	153-1219	ALL	LT60
2	3	ARTR4/PSSP6			
2	4	PUTR2/STCO4	0-1066	FLAT,SW	LT30
2	4	ARTR4/STCO4			
3	1	SAEX	458-609	FLAT	FLAT
3	2	ARTR2/FEID	153-1066	ALL	LT30
3	3	ARTR2/PSSP6	0-1066	ALL	LT60
3	3	ARRI2/PSSP6			
3	3	RHGL/PSSP6			
3	4	ARTR2/STCO4	0-1219	ALL	LT60
3	4	PUTR2/ORHY			
4	3	SAVE4/DISP	153-914	ALL	LT60
4	3	ARTRT/FEID			
4	3	ARTRT/PSSP6			
4	4	KRLA2/POSE	0-1371	ALL	LT60
4	4	GRSP/POSE			
4	4	ARTR2/POSE			
4	4	ARRI2/POSE			
4	4	ERSP7-POSE			

3 4 2 1 COLUMBIA BASIN SECTION

TEMP MOIS VEGETATION-SITE RULES
COLD- 1 WET-1 PLANT ASSOCIATIONS ELEVATION (m) ASPECT SLOPE

HERBACEOUS

1	1	FEID-KOMA	153-1371	ALL	LT60
1	1	FEID-SYAL			
1	1	RONU/FEID			
2	2	PSSP6-FEID (PALOUSE)	o - 1219	ALL	LT60
3	2	PSSP6-FEID (CANYON)	o - 1219	ALL	LT60
3	3	PSSP6-POSE (LITHOSOL)	o - 1219	ALL	LT60
4	2	LEC14(BOTTOMLANDS)		NOT MAPPED	
4	3	DISP-(SCNE)	O-304	FLAT,SW	LT30
4	4	LOCO4-POSE	o - 1219	FLAT	FLAT
4	4	STCO4-POSE			
4	4	DAUN- POSE			
4	4	ARLO3-POSE			

M242C EASTERN CASCADES SECTION

TEMP	MOIS	PLANT ASSOCIATIONS	VEGETATION-SITE RULES		
COLD-1	WET-1		ELEVATION (m)	ASPECT	SLOPE

FORESTS

1	1	ABLA/LEGL	1829-2133	ALL	LT30
1	1	ABLA/RHAL2			
1	2	ABLA/PHEM	1220-2133	ALL	LT60
1	2	LALY/VADE			
1	2	TSME/PHEM-VADE			
1	3	TSME/XETE	1220-2743	ALL	ALL
1	3	TSME/VASC			
1	3	TSHE/ARNE			
1	3	TSME/LUHI			
1	3'	ABLA/LUHI			
1	3	ABLA/VAMY2			
1	3	ABLA/VASC			
1	3'	PICO/VASC			
1	3	PICO/XETE			
1	4	PIAL/CARU	1220-2133	SW	5-59
1	4	PIAL/LUGLH			
1	4	LALY/LUGLH			
1	4	PIAL-PICO/PELA7			
1	4	PICO/CAPE6			
2	1	ABLA/MEFE	458-1523	ALL	LT60
2	1	ABLA/TRCA3			
2	1	PIEN/EQAR			
2	1	ABAM/OPHO			
2	1	ABGR/POPU3			
2	1	TSHE/OPHO			
2	1	THPL/OPHO			
2	2	ABAM/CLUN2	610-1981	ALL	LT60
2	2	PIEN/CLUN2			
2	2	ABLA/LIBO3			
2	2	ABAM/ACCI			
2	2	ABAM/ACTR			
2	2	ABAM/VAAL			
2	2	ABAM/GASH			
2	2	ABGR-PIEN/MAST4			
2	2	ABGR/VAME/CLUN2			
2	2	ABGR/VAME			
2	2	THPL/ACTR			
2	2	TSHE/ACTR			
2	2	TSHE/RHMA3			
2	2	ABCO-PIPO/CAPE6			
2	3	ABAM/XETE	915-1828	ALL	ALL
2	3	TSME/RULA2			
2	3	ABAM/VAME			
2	3	ABCO-ABSH/CHUM			
2	3	ABSH/CAPE6			
2	3	ABSH-TSME/ARNE			
2	3	TSHE/ARNE			
2	3	TSHE/XETE			
2	3	ABCO/CEVE			
2	3	ABCO-PIPO/RIV13			

M242C EASTERN CASCADES SECTION

I-EM-P	MOIS	PLANT ASSOCIATIONS	VEGETATION—SITE RULES		
C O L D - 1	W E T - 1		ELEVATION (m)	ASPECT	SLOPE
2	3	ABCO—PILA—PIPO/ARPA6			
2	3	ABCO—PICO/CAPE6—STOC2			
2	3	PICO/CAPE6			
2	3	PSME/ARUV			
2	4	ABLA/CARU	762-2133	ALL	ALL
2	4	ABLA/CAGE2			
2	4	ABGR/CAGE2			
2	4	PIPO—PSME/ARNE			
2	4	ABGR/ARNE			
2	4	PSME/HODI			
2	4	PSME/SPBE2			
2	4	PICO/STOC2			
2	4	PICO/CAGE2			
2	4	PICO/CEVE			
2	4	PSME/ARUV—PUTR2			
2	4	PICO/ARTR2			
2	4	PICO/ARTR2/FEID			
2	4	PICO/ARTR2/STOC2			
2	4	PICO/FEID			
2	4	PICO/PUTR2/STOC2			
2	4	PICO/PUTR2/CAPE6			
2	4	PICO/PUTR2—RICE			
3	1	PICO/CAREX WETLAND	1372-2438	ALL	LT30
3	1	PICO- POTR5/VAUL			
3	1	TSHE/LIBO3			
3	2	ABGR/CACH6	153-2133	ALL	ALL
3	2	ABGR/ACTR			
3	2	ABGR/CLUN2			
3	2	ABGR/ACCI			
3	2	ABGR/LIBO3			
3	2	ABGR/PAMY			
3	2	TSHE/MANEN			
3	2	ABGR/MANEN			
3	2	PICO/PUTR2			
3	2	PICO/ARUV			
3	2	ABCO/CACH6			
3	3	ABGR/TRLA6	305-2133	ALL	ALL
3	3	ABGR/SYAL			
3	3	ABGR/CARU			
3	3	ABGR/SPBE2			
3	3	PSME/SYAL			
3	3	PSME/CAGE2			
3	3	PSME/CARU			
3	3	ABCO—PIPO/ARPA6—MANEN			
3	3	PICO/FEID			
3	3	ABCO/CEVE			
3	3	ABCO/SYAL			
3	4	ABGR/HODI	305—1828	ALL	ALL
3	4	PSME/FEOC			
3	4	PIPO—PSME/PUTR2			
3	4	PIPO—PSME/ARPA6—CEVE			

M242C EASTERN CASCADES SECTION

TEMP COLD- 1	MOIS WET-1	PLANT ASSOCIATIONS	VEGETATION-SITE RULES ELEVATION (m)	ASPECT	SLOPE
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3	4	PIPO-PSME/PEFR3			
3	4	PIPO/ARPA6			
3	4	PIPO/ASDE6			
3	4	ABCO-CADE27-PIPO/AMAL2			
3	4'	ABCO/ARPA6			
4	2	PIPO/PUTR2-FEID	153-1676	ALL	LT60
4	2	PIPO/ARPA6-PUTR2			
4	2	PIPO-QUGA4/SYAL			
4	2	QUGA4/ELGL			
4	2	PIPO/CEVE-PUTR2			
4	2	PIPO/PUTR2/CAPE6			
4	2	PIPO/ARTRV/PONE2			
4	3	PIPO-QUGA4/PUTR2	153-1371	ALL	ALL
4	3	PIPO-QUGA4/BASA3			
4	3	PIPO-QUGA4/CAGE2			
4	3	QUGA4/CAGE2			
4	3	QUGA4/SYAL			
4	3	QUGA4/FEID			
4	3	PIPO/PUTR2/STOC2			
4	3	PIPO/WYMO			
4	4	JUOC/ARTR2-PUTR2/PSSP6-FEID	458-1828	ALL	LT30

SHRUBLANDS

1	2	ALVIS	1829-2285	ALL	LT60
1	2	CAME7-PHEM			
1	3	PUTR2/CAPE6-STOC2	1982-2133	NE	5-29
1	4	ARTRV/CAGE2	1982-2590	NE,SW	GT5
1	4	ARTRV/STOC2			
2	1	SABO2-SAGE2/CAAN15		NOT MAPPED	
2	1	SABO2/CARO6			
2	1	SABO2-SAGE2			
2	1	SABO2-SALE			
2	1	SAGE2-SALE			
2	1	VAOC'CAAQD			
2	3	PUTR2/FEID	762-914	FLAT'	FLAT
2	3	ARTR4/FEID			
2	4	ARTRV/FEID	o-914	SW	5-59
3	3	CELE3/PSSP6-FEID	153-1676	ALL	LT60
3	3	ARTR2/FEID			
3	3	ARAR8/FEID			
3	4	ARTRV/PSSP6	610-914	SW	GT30
4	2	ARCA13/(ELCA11)-PONE3		NOT MAPPED	
4	2	ARCA13-ARTRV/POCU3			
4	3	ARTRW8-PUTR2/PSSP6	o-914	ALL	LT60
4	3	ARAR8-PUTR2/PSSP6-FEID			
4	4	ARTRW8/PSSP6	1220-1371	ALL	LT30
4	4	ARTRW8/STTH2			
4	4	ARAR8/PSSP6			
4	4	ARAR8/POSE			

M242C **EASTERN CASCADES SECTION**

TEMP **MOIS** **VEGETATION-SITE RULES**
COLD- 1 **WET- 1** **PLANT ASSOCIATIONS** **ELEVATION (m)** **ASPECT** **SLOPE**

HERBACEOUS

1	1	CAN12	1372-2590	ALL	LT60
1	1	CASC10--GERO2			
1	2	CASP5		NOT MAPPED	
1	3	CABR12	1982-2438	SW	5-59
1	3	FEVI			
1	3	FEOV			
1	4	CAPU	2134-2285	FLAT	FLAT
1	4	DAIN			
2	1	CASI2	1524-- 1676	FLAT	FLAT
2	1	CALE4			
2	1	CALA11			
2	1	CAR06			
2	2	DECE		NOT MAPPED	
2	3	POCU3	1220-1371	FLAT	FLAT
2	3	PONE3			
3	1	CANE2		NOT MAPPED,	
3	3	FEID--HICY		NOT MAPPED	
4	1	SCAC	1220-- 1523	FLAT	FLAT
4	1	TYLA			
4	3	PSSP6--FEID (PALOUSE)		NOT MAPPED	
4	4	PSSP6--POSE		NOT MAPPED	
4	4	PSSP6--BASA3--POSE			
		ROCKS	2286--3047	ALL	LT60

M261D SOUTHERN CASCADES SECTION

TEMP	MOIS		VEGETATION-SITE RULES	
C O L D - I	W E T - I	PLANT ASSOCIATIONS	ELEVATION (m) ASPECT	SLOPE

FORESTS

1	2	TSME/PHEM-VADE	1524-2743	FLAT, NE	LT60
1	2	TSME/JUPA			
1	2	TSME/VASC			
1	2	ABSH/VAME			
1	2	ABSH/CAPE6			
1	2	ABSH/PENST			
1	3	ABCO-ABSH/CHUM	1677-2438	ALL	LT60
1	3	ABSH-TSME/ARNE			
1	4	PIAL SERIES	22.86-2743	SW	5-59
1	4	PICO/ARNE			
2	1	TSHE/VAME/LIBO3	1372-2133	ALL	LT30
2	1	ABAM-ABCO/MANEN			
2	2	ABCO/RUN12	915-2285	ALL	LT60
2	2	ABCO/VAME			
2	2	ABCO/ACGL			
2	2	ABCO/AMAL2-COC06			
2	2	ABCO/AMAL2/ANDE3			
2	3	ABCO/CHUM	915-2438	ALL	LT30
2	3	ABCO/CACH6			
2	3	ABCO/CEVE			
2	3	ABCO-PSME/MAPI3			
2	3	ABCO-PIPO/CEVE			
3	1	PIPO/AMAL2-MARE11	762-1523	NE	5-59
		ABCO/MANEN			
3	2	PIPO-PIJE/MARE11	610-1981	ALL	LT60
3	2	PIPO-PSME/PUTR2			
3	2	ABCO-PILA-PIPO/ARPA6			
3	2	ABCO-CADE27-PIPO/AMAL2			
3	2	CADE27-PSME/CACH6			
3	2	PILA-PSME/CACH6			
3	2	PIJE-QUKE/POSE			
3	2	PIJE-QUKE/RHTR			
3	3	PIPO-PIJE/STCOL	1067-1981	ALL	LT60
3	3	PIPO/ARPA6-PUTR2			
3	3	PIPO/ARPA6			
3	4	CUBA		NOT MAPPED	
4	1	TSHE/MANEN		NOT MAPPED	
4	2	PIPO-QUKE	305-1371	ALL	LT60
4	2	PIPO-QUWI			
4	2	JUOC-PIPO-QUGA4/CECU/FEID			
4	2	QUGA4/CECU/FEID			
4	2	QUGA4/TODI-SYAL/ELGL			
4	3	PIPO/STCO4	305-1523	ALL	LT30
4	3	PIPO/PUTR2			
4	3	PIPO-QUGA4/PUTR2			
4	3	PIAL SERIES			
4	4	JUOC/ARTRV	458-1523	ALL	LT60
4	4	JUOC/ARAR8/PSPP6			
4	4	JUOC-QUGA4			
		QUDO			

M261D SOUTHERN CASCADES SECTION

TEMP	MOIS		VEGETATION-SITE RULES	
COLD-1	WET-1	PLANT ASSOCIATIONS	ELEVATION (m) ASPECT	SLOPE

SHRUBLANDS and HERBACEOUS

1	1	ALIN2		NOT MAPPED
1	3	HODI		NOT MAPPED
2	1	DECE		NOT MAPPED
2	1	CANE2		
2	1	CARO6		
2	2	CEVE		NOT MAPPED
2	3	CELE3/FEID		NOT MAPPED
3	1	SALE	610-914	FLAT FLAT
3	2	QUVA		NOT MAPPED
3	2	ARPA6 SERIES		
3	3	QUBR		NOT MAPPED
3	4	ARTR2 SERIES	762-914	FLAT,SW LT30
3	4	PSSP6		
4	1	VERNAL POOLS- ANNUALS & FORBS		NOT MAPPED
4	3	ARVI4-CECU/FEID-STLE2	305-1066	ALL LT60
4	3	CECU SERIES		
4	3	DACA3		
4	3	STLE2		
4	4	NAPU	762-914	SW 5-29
		ROCKS	2439-4114	NE,SW 5-59

M261G MODOC PLATEAU SECTION

TEMP	MOIS	PLANT ASSOCIATIONS	VEGETATION—SITE RULES		
COLD- 1	WET-1		ELEVATION (m)	ASPECT	SLOPE

FORESTS

1	1	PICO/VACE	2439–2590	NE	30-59
1	1	PICO/ARTR2/FEID			
1	1	PICO/ARTR2/STOC2			
1	2	ABSH/CAPE6	2134-2285	FLAT,NE	LT30
1	2	PICO SERIES			
1	2	ABCO/CACH6			
1	2	ABCO/CEVE			
1	3	ABSH–TSME/ARNE	2134-2895	SW	5-29
1	3	ABSH/CACH6			
1	3	ABSH/PENST			
1	3	PIWA/SYLO/PSJA			
1	3	PIWA/ARNE			
1	4	PIAL/STCA	2744-2895	NE,SW	5-29
1	4	PIAL/PEGR2			
1	4	PIAL/ARAC			
2	1	POTR15 SERIES	1982–2285	FLAT	FLAT
2	2	ABCO/SYAL	1677–2285	ALL	LT60
2	2	ABCO/SYMO			
2	2	ABCO/MARE11			
2	2	ABCO–PIPO/SYMPH			
2	3	PIJE/PUTR2	1677-2285	ALL	LT60
2	3	PIJE/ARTRV			
3	1	ABCO–CADE27–PIPO/AMAL2		NOT MAPPED	
3	2	PIPO–PIJE/FRRU	1372-2133	ALL	LT30
3	2	PIPO–PIJE/MARE11			
3	2	ABCO–PIPO/CEVE			
3	2	ABCO–PIPO/PUTR2			
3	3	PIPO–PIJE/PUTR2	1220–1981	ALL	LT60
3	3	PIPO–PIJE–CADE27			
3	3	PIPO–PIJE/STCOL			
3	3	PIPO/CEVE–PUTR2			
3	3	PIPO/ARPA6–PUTR2			
3	3	PIPO/PUTR2/ORHY			
3	3	PIPO/CELE3–PUTR2			
4	3	PIPO/ARTR2/STIPA	915-1828	ALL	LT60
4	3	PIPO-QUGA4			
4	3	PIPO/PUTR2			
4	3	PIPO/CELE3/PSSP6			
4	3	PIPO/ARTR2–PUTR2			
4'	3	JUOC–PIPO/PUTR2/(PSSP6)–FEID			
4	4	JUOC–PIPO–QUGA4/CECU/FEID	915-1828	ALL	LT60
4	4	JUOC/ARNO4			
4	4	JUOC/ARAR8/PSSP6			
4	4	JUOC/ARTRV			

SHRUBLANDS

1	1	B EGL- SALIX		NOT MAPPED	
1	2	CELE3/FEID	2286-2438	SW	30-59
1	2	ARTRV/FEID			

M261G MODOC PLATEAU SECTION

TEMP	MOIS	PLANT ASSOCIATIONS	VEGETATION-SITE RULES	ASPECT	SLOPE
C O L D - 1	W E T - 1		ELEVATION (m)		
1	4	ERDI	2286-2743	ALL	LT30
1	4	LEPU			
2	1	SABO2-SALE		NOT MAPPED	
2	1	SAGE2-SARI2			
2	2	CELE3/PSSP6	1372-1981	SW	30-59
2	2	ARPA6/CEVE-CEPR			
2	2	CEVE			
2	3	ARAR8/FEID		NOT MAPPED	
2	3	ARTR2/FEID			
2	4	ARNO4/POSE		NOT MAPPED	
2	4	ARAR8/POSE			
3	1	SALE/LECI4		NOT MAPPED	
3	2	ARCA13/CANE2-POCU3		NOT MAPPED	
3	2	ARCA13/MURI			
3	2	ARCA13/FEID			
3	3	PUTR2/FEID	1220-1828	FLAT,SW	LT60
3	3	PRSU			
3	4	CECU-CEMOG-PRSU	1220-1371	SW	5-59
3	4	ARAR8/PSSP6			
3	4	ARTRW8/PSSP6			
3	4	ARTRW8/STTH2			
4	1	SAEX	915-1219	FLAT	FLAT
4	2	SAVE4/DISP	1372 - 5500	FLAT	FLAT
4	2	SAVE4/LECI4			
4	2	ARTR2/LECI4			
4	3	CECU/PSSP6		NOT MAPPED	
4	4	ATCO- SAVE4	1372- 1523	SW	5-29

HERBACEOUS

1	1	CASP5	2591-2743	NE	5-29
1	1	CANI2			
2	1	CABR12		NOT MAPPED	
2	1	CALA30			
2	1	CALA11			
2	1	CASI2			
2	1	CAAQ			
2	1	DECE			
2	1	CANE2			
2	2	PONE3		NOT MAPPED	
3	2	POCU3		NOT MAPPED:	
3	2	LETR5-POSE			
3	3	FEID		NOT MAPPED	
3	4	PSSP6		NOT MAPPED	
4	1	SCAC	1067- 1523	FLAT	FLAT
4	1	SCVA			
4	1	TYLA			
4	2	LECI4		NOT MAPPED	
4	2	DISP			
4	3	STTH2	1372- 1523	SW	30-59
4	4	POSE		NOT MAPPED'	

M331A YELLOWSTONE HIGHLANDS SECTION

TEMP	MOIS		VEGETATION-SITE RULES		
COLD- 1	WET-1	PLANT ASSOCIATIONS	ELEVATION (m)	ASPECT	SLOPE

FORESTS

1	1	PIEN/CADI6		NOT MAPPED	
1	1	ABwcAcA4			
1	1	PIEN/CALE4			
1	2	ABLA/LUGLH		NOT MAPPED	
1	2	PIEN/GATR3			
1	3	ABLA-PIAL/VASC	1677-3352	ALL	LT60
1	3	PIEN/VASC			
1	3	ABLA/VASC			
1	4	PIEN/ARCO9	2286-3352	ALL	LT60
1	4	PIEN/HYRE70			
1	4	PIAL/VASC			
1	4	PIAL/CAR05			
1	4	PIAL/JUCO6			
1	4	PIAL/CAGE2			
2	1	PIEN/COSE16		NOT MAPPED	
2	1	PIEN/EQAR			
2	1	POTR5/CACA4			
2	2	ABLA/THOC	1524-2438	FLAT,NE	LT60
2	2	PIEN/LIBO3			
2	2	PICEA/LIBO3			
2	2	ABLA/ACRU2			
2	2	ABLA/LIBO3			
2	3	ABLA/VAGL	1982-2895	ALL	LT60
2	3	ABLA/SYAL			
2	3	ABLA/CARU			
2	3	PSME/VAGL			
2	4	ABLA/ARCO9	1982-2895	ALL	LT60
2	4	ABLA/JUCO6			
2	4	ABLA/CAR05			
2	4	PICO/PUTR2			
3	1	POTR5/COSE16	2286-2438	FLAT	FLAT
3	1	POTR15/COSE16			
3	2	PSME/OSCH		NOT MAPPED	
3	2	ABLA/SPBE2			
3	2	ABWACGL			
3	3	PSME/SYAL	1372-2438	ALL	ALL
3	3	PSME/CARU			
3	4	PSME/JUCO6	1677-2743	ALL	LT60
3	4	PSME/ARCO9			
3	4	PSME/FEKI2			
3	4	PIEN/JUCO6			
4	2	PSME/SPBE2		NOT MAPPED	
4	2	PSME/ACGL			
4	3	PSME/PHMA5	1677-2590	FLAT,NE	LT60
4	3	PIEN/PHMA5			
4	3	PICEA/PHMA5			
4	3	ACGR3/CARU			
4	4	PIFL2/JUCO6	1524-243s	NE,SW	5-59
4	4	PIFL2/FEID			
4	4	PIFL2/FEKI2			

M331A YELLOWSTONE HIGHLANDS SECTION

TEMP	MOIS	PLANT ASSOCIATIONS	VEGETATION-SITE	RULES	
COLD- 1	WET- 1		ELEVATION (m)	ASPECT	SLOPE
4	4	PSME/PSSP6			
4	4	PSMEJFEID			

SHRUBLANDS

1	1	SAWO/CAAQ		NOT MAPPED	
1	1	SAWO/DECE			
1	1	SAPL2/CAAQ-CAR06			
1	1	SARE2/CALE4			
1	1	B EGL/CAR06			
1	1	KAMI/CASC12			
1	4	ARART/FEID		NOT MAPPED	
2	1	SAGE2/CACA4		NOT MAPPED	
2	1	SAGE2/CAR06			
2	1	SACA4/CAR06			
2	2	ARTRV-SYOR2/FEID		NOT MAPPED	
2	2	ARCA13/PASM			
2	2	ARCA13/FEID			
2	2	PEFL15/DECE			
2	3	ARTRV/FEID	1524-2438	ALL	LT60
2	3	ARTRV/BRCA5			
2	3	ARTR4/FEID			
2	4	ARTRV/PSSP6	2134-2743	SW	5-59
2	4	ARTR4/PSSP6			
3	1	SADR		NOT MAPPED	
3	1	sABE2			
3	1	COSE16			
3	2	ARTRT/PASM	1677-1828	FLAT	FLAT
3	3	ARTRT/PSSP6	1372-2438	ALL	LT60
3	3	ARTRT/FEID			
3	3	ARPE6/FEID			
3	3	CELE3/PSSP6			
4	4	ARNO4/PSSP6	1220-1676	ALL	LT60

HERBACEOUS

1	1	CAsc12		NOT MAPPED	
1	1	CACA4			
1	2	MOIST ALPINE TURF	2744-3352	ALL	LT60
1	3	DRY ALPINE TURF	2744-3809	ALL	LT60
2	1	CAR06		NOT MAPPED	
2	1	CAAQ			
2	1	CAL17			
2	1	CALA11			
2	1	ELQU2			
2	1	GLBO			
2	2	DECE		NOT MAPPED	
2	2	SETR			
2	2	FEID-DECE			
2	3	FEID-ELTR7	2744-2895	FLAT	FLAT
2	3	FEID-CAFI			

M331A YELLOWSTONE HIGHLANDS SECTION

TEMP	MOIS	VEGETATION-SITE RULES			
COLD-1	WET-1	PLANT ASSOCIATIONS	ELEVATION (m)	ASPECT	SLOPE
3	1	CASI2		NOT MAPPED	
3	1	CANE2			
3	1	ELPA3			
3	1	SCAC			
3	2	FEID-STR12		NOT MAPPED	
3	3	FEID-PSSP6	1372-2438	ALL	LT60
3	4	PSSP6		NOT MAPPED	
4	1	TYLA		NOT MAPPED	
4	3	PSSP6-PASM	1677-1828	SW	5-29
4	4	STCO4-BOGR2	1220-1676	ALL	LT60
4	4	PSSP6-BOGR2			
4	4	PSSP6-POSE			
		ROCKS	1829-3657	ALL	ALL

M331D OVERTHRUST MOUNTAINS SECTION

TEMP	MOIS		VEGETATION-SITE RULES	
C O L D - 1	W E T - 1	PLANT ASSOCIATIONS	ELEVATION (m) ASPECT	SLOPE

FORESTS

1	1	PIEN/CALE4	NOT MAPPED:	
1	1	PIEN/CADI6		
1	1	PIEN/CACA4		
1	1	ABLA/CACA4		
1	2	PIEN/GATR3	2439-2895	LT60
1	2	ABLA/VASC		
1	2	PIEN/LIBO3		
1	2	ABLA/ARLA8		
1	3	PIEN/VASC	2896-3809	ALL
1	3	PIAL/VASC		ALL
1	3	PIAL/CAGE2		
1	3	PIAL/JUCO6		
1	3	PIAL/CARO5		
1	4	PICO/ARCO9	2286-3352	NE,SW
1	4	PIEN/RIMO2		GT5
1	4	PIEN/JUCO6		
2	1	PIEN/COSE16	1982-2590	NE,SW
2	1	PIEN/EQAR		5-59
2	1	POTR15/COSE16		
2	2	ABLA/ACRU2	1677-2895	ALL
2	2	ABLA/LIBO3		LT60
2	2	ABLA/THOC		
2	2	ABLA/OSCH		
2	2	POTR5/SYOR2/CARU		
2	2	POTR5/SYOR2/TALL FORB		
2	2	POTR5/SYOR2/THFE		
2	2	POTR5/SYOR2/CARO5		
2	2	POTR5/SYOR2/BRCA5		
2	2	POTR5/AMAL2-SYOR2/BRCA5		
2	2	POTR5/AMAL2-SYOR2/THFE		
2	2	POTR5/AMAL2-SYOR2/CARU		
2	2	POTR5/AMAL2-SYOR2/TALL FORB		
2	2	POTR5/RUPA		
2	2	ABLA/RIMO2		
2	3	ABLA/PHMA5	1829-3200	ALL
2	3	ABLA/VAGL		ALL
2	3	ABLA/SYAL		
2	3	ABLA/CARU		
2	3	ABLA/PERA4		
2	3	PICO/VASC		
2	3	PICO/SPBE2		
2	3	PICO/VAGL		
2	3	PICO/CARU		
2	4	ABLA/ARCO9	NOT MAPPED	
2	4	ABLA/CARO5		
2	4	POTR5/SASC		
3	1	POAN3/COSE16	1524-1676	FLAT
3	2	PSME/ARCO9	1982-3200	FLAT
3	2	PSME/SYOR2	ALL	LT60
3	2	PSME/OSCH		

M331D OVERTHRUST MOUNTAINS SECTION

TEMP COLD-1	MOIS WET-1	PLANT ASSOCIATIONS	VEGETATION-SITE RULES ELEVATION (m)	ASPECT	SLOPE
3	2	ABLA/ACGL			
3	2	ABLA/SPBE2			
3	2	POAN3/ACGR3			
3	2	POTR5/THFE			
3	2	POTR5/SHCA			
3	3	PSME/CARU	1829-2743	ALL	LT60
3	3	PSME/SYAL			
3	3	PSME/VAGL			
3	3	POTR5/AMAL2/TALL FORB			
3	3	POTR5/AMAL2/THFE			
3	3	POTR5/CARU			
3	3	POTR5/BRCA5			
3	4	PSME/JUCO6	1677-2895	ALL	LT60
3	4	ABLA/MARE11			
3	4	ABLA/JUCO6			
3	4	POTR5/WYAM			
3	4	POTR5/TALL FORB			
3	4	PSME/FEK12			
3	4	PIFL2/FEK12			
3	4	PIFL2/FEID			
3	4	PIFL2/CELE3			
4	2	PSME/SPBE2	1524-2285	ALL	LT60
4	2	PSME/ACGL			
4	3	PSME/PHMA5	1982-2285	FLAT,SW	LT60
4	3	POTR5/JUCO6/CAGE2			
4	3	POTR5/JUCO6/LUAR3			
4	4	PSME/CELE3	1524-2438	ALL	LT60
4	4	PSME/MARE11			
4	4	POTR5/ARTR			
4	4	POTR5/STCO4			
4	4	JUOS/PSSP6			
4	4	PSME/FEID			

SHRUBLANDS

1	1	SAWO/CAAQ	2439-2590	FLAT	FLAT
1	1	SAWO/CARO6			
1	1	SAWO/CANE2			
1	1	SAWO/DECE			
1	1	SAWO/MESIC FORB			
1	1	SAPL2			
1	3	ARTRV-SYOR2/PSSP6	1677-3047	FLAT,NE	LT60
1	3	ARTRV-SYOR2/FEID			
2	1	SAEA	1677-2743	ALL	LT30
2	1	SAGE2/POPA2			
2	1	SAGE2/CARO6			
2	1	SAGE2/CACA4			
2	1	SAGE2/MESIC FORB			
2	1	SAGE2/DECE			
2	1	SAGE2/MESIC GRAMINOIDINOID			
2	1	ARCAV2/DECE			

M331D OVERTHRUST MOUNTAINS SECTION

TEMP COLD- 1	MOIS WET-1	PLANT ASSOCIATIONS	VEGETATION-SITE RULES ELEVATION (m)	ASPECT	SLOPE
2	2	PEFL15/DECE	2286-2438	SW	5 - 5 9
2	2	PEFL15/FEID			
2	2	ARCAV2/FEID			
2	3	ARTRV/FEID	1829-2895	ALL	LT60
2	3	ARTRV/BRCAS			
2	3	ACGL			
2	4	PUTR2/PSSP6	1524-2590	ALL	LT60
2	4	ARTRV/PSSP6			
3	1	SABO2/CARO6	1677-2438	FLAT	FLAT
3	1	SABO2/CANE2			
3	1	SABO2/CACA4			
3	1	SABO2/EQAR			
3	1	SABO2/POPA2			
3	1	SABO2/MAST4			
3	1	SABO2/CAAQ			
3	1	SABO2/MESIC FORB			
3	1	SABO2/MESIC GRAMINOID			
3	1	COSE16/GATR3			
3	1	ALIN2/RIHU			
3	1	ALIN2/MESIC FORB			
3	1	ALIN2/MESIC GRAMINOID.			
3	2	BEOC2/COSE16		NOT MAPPED	
3	2	BEOC2/MESIC FORB			
3	3	ARTR4/PSSP6	1220-2285	ALL	LT60
3	3	ARTR4/FEID			
3	3	ARTRW8/POSE			
3	3	ARTRW8/PSSP6			
3	3	ARTRW8/STCO4			
3	3	ARTRT/PSSP6			
3	3	ARTRT/FEID			
3	3	ARTR2/STCO4			
3	4	PUTR2/STCO4	1677-2438	ALL	LT60
3	4	CELE3/PSSP6			
4	1	SAEX/EQAR		NOT MAF'PED	
4	1	SAEX/MESIC FORB			
4	1	SAEX/MESIC GRAMINOID.			
4	1	SALU2/CARO6			
4	1	SALU2/CACA4			
4	1	COSE16/HELA4			
4	3	ARAR8/FEID	1220-1523	FLAT,SW	LT30
4	3	ARNO4/FEID			
4	4	ARNO4/PSSP6		NOT MAPPED	
4	4	ARAR8/POSE			
4	4	ARAR8/PSSP6			

M331D OVERTHRUST MOUNTAINS SECTION

TEMP	MOIS		VEGETATION—SITE RULES		
COLD- 1	WET- 1	PLANT ASSOCIATIONS	ELEVATION (m)	ASPECT	SLOPE

HERBACEOUS

1	1	CAAQ		NOT MAPPED	
1	1	CASI2			
1	2	CAMI7	1829-2133	FIAT	FLAT
1	2	CAR06			
1	2	CANE.2			
1	2	JUBA			
1	3	DECE		NOT MAPPED	
2	2	MECI3		NOT MAPPED	
2	3	MESIC FORE	2591-2743	FLAT	FLAT
2	4	POPA2		NOT MAPPED	
3	1	ELPA3		NOT MAPPED	
4	4	LEC14		NOT MAPPED	
4	4	PSSP6			
4	4	ORHY SERIES			

M331J WIND RIVER SECTION

TEMP	MOIS	PLANT ASSOCIATIONS	VEGETATION—SITE RULES		
COLD- 1	WET-1		ELEVATION (m)	ASPECT	SLOPE

FORESTS

1	1	ABLA/CALEH2		NOT MAPPED	
1	1	ABLA/CACA4			
1	2	ABLA-PIAL/VASC	2744-3200	ALL	LT60
1	2	PIAL/VASC			
1	3	ABLA/ARCO9	2439-3657	FLAT,SW	ALL
1	3	PICO/ARCO9			
1	3	ABLA/JUCO6			
1	4	PIAL/JUCO6	2744-3200	ALL	LT60
1	4	PIAL/CARO5			
1	4	PIAL/FEID			
2	1	PICEA/EQAR		NOT MAPPED	
2	1	PICEA/CADI6			
2	1	ABwCACA4			
2	2	PIEN/VASC	2439-3657	NE,SW	5-59
2	2	ABLA/VASC			
2	2	ABLA/ARLA8			
2	2	PICO/VASC			
2	3	PICO/CARU	2286-2895	ALL	ALL
2	3	PICO/JUCO6			
2	4	PICO/CARO5		NOT MAPPED	
2	4	PSME/SPBE2			
2	4	PICO/FEID			
3	1	ABLA/STAM2		NOT MAPPED	
3	1	POPTRE/COSE16			
3	2	ABLA/ACRU2	2286-2438	NE	5-29
3	3	PICEA/PHMA5	2439-2743	FLAT,NE	LT60
3	3	PSME/SYAL			
3	3	PSME/MARE11			
3	3	PSME/CARU			
3	4	PSME/JUCO6		NOT MAPPED	
3	4	PSME/SYOR2			
3	4	PSME/ARCO9			
4	4	PIFL2/FEID	2134-2590	SW	5-29
4	4	PIFL2/FEKI2			
4	4	PSME/FEKI2			
4	4	PSME/FEID			
4	4	PIFL2/JUCO6			

M331J WIND RIVER SECTION

TEMP	MOIS	PLANT ASSOCIATIONS	VEGETATION-SITE RULES		
COLD-1	WET-1		ELEVATION (m)	ASPECT	SLOPE

SHRUBLANDS

1	1	KRUMMHOLZ		NOT MAPPED	
1	1	SAPL2/CAAQ			
1	1	SAPL2/CASC12			
1	1	SARE2/CALE4			
1	1	PHEM/ANLA3			
1	1	KAMI/CASC12			
2	1	SABO2/CACA4	2286-2438	FLAT,SW	LT30
2	1	SABO2/EQAR			
2	1	SABO2/CAAQ			
2	1	SABO2/CANE2			
2	1	SADR			
2	2	ARTRV-SYOR2/FEID	3048-3200	FLAT	FLAT
2	3	ARTRV/FEID	2286-3047	FLAT,NE	LT30
3	1	SABE2		NOT MAPPED	
3	1	SALU2/CACA4			
3	1	SALU2/CARO6			
3	2	PUTR2/FEID		NOT MAPPED	
3	3	ARAR8/FEID	2286-2590	FLAT	FLAT
3	3	ARTR4/FEID			
4	4	ARTRT/PSSP6	1677-2133	ALL	LT60
4	4	ARTRW8/PSSP6			
4	4	ARTRV/PSSP6			

HERBACEOUS

1	2	FEID-CASC10		NOT MAPPED	
1	2	MOIST ALPINE			
1	3	DRY ALPINE	3201-3962	ALL	LT30
2	2	FEID-ELTR7		NOT MAPPED	
3	3	FEID- PSSP6	2134-2743	ALL	LT60
4	4	PSSP6-POSE		NOT MAPPED	
		ROCKS	2439-3962	ALL	FLAT,30-59,60+

M332A IDAHO BATHOLITH SECTION

TEMP	MOIS		VEGETATION—SITE RULES	
COLD- 1	WET—1	PLANT ASSOCIATIONS	ELEVATION (m) ASPECT	SLOPE

FORESTS

1	1	ABwCACA4	1372—1828	FLAT	FLAT
1	1	ABLA/CABI			
1	1	ABLA/LEGL			
1	2	ABLA/MEFE	1829-2895	ALL	LT60
1	2	LALY—ABLA			
1	2	ABLA/LUGLH			
1	3	ABLA/CARU	1220-3047	ALL	ALL
1	3	ABLA/CLUN2			
1	3	ABLA/COOC			
1	3	ABLA/LIBO3			
1	3	ABLA/VACE			
1	3	ABGR/XETE			
1	3	ABLA/VAGL			
1	3	ABLA/XETE			
1	4	A B W C A G E 2 .	1372—3047	ALL	LT60
1	4	ABLA/SPBE2			
1	4	ABLA/ARCO9			
1	4	PIAL—ABLA			
1	4	PICO/FEID			
1	4	ABLA/VASC			
1	4	PICO/VASC			
2	1	ABLA/STAM2		NOT MAPPED	
2	2	THPL/ASCA2	610-1523	ALL	LT60
2	2	THPL/CLUN2			
2	2	THPL/GYDR			
2	2	THPL/TABR2/ASCA2			
2	3	ABGR/CLUN2	458-2590	ALL	LT60
2	3	ABGR/COOC			
2	3	ABGRJASCA2			
2	3	ABGR/VACE			
2	3	ABGR/LIBO3			
2	3	ABGR/TABR2			
2	3	PSME/VACE			
2	4	ABWACGL	915-2133	ALL	LT60
2	4	ABGR/ACGL			
2	4	ABGR/VAGL			
3	1	THPL/ATFI	458—1066	FLAT	FLAT
3	2	THPL/ADPE	305—1066	FLAT,NE	LT60
3	3	PSME/SYAL	1220-2438	ALL	LT60
3	3	ABGR/SPBE2			
3	3	PSME/ACGL			
3	3	PSME/LIBO3			
3	3	PSME/VAGL			
3	3	ABGR/CARU			
3	4	PSME/SPBE2	610-2743	ALL	ALL
3	4	PSME/CAGE2			
3	4	PSME/PHMA5			
3	4	PSME/MARE11			
3	4	PSME/CARU			
3	4	PSME/SYOR2			

M332A IDAHO BATHOLITH SECTION

TEMP COLD-1	MOIS WET-1	PLANT ASSOCIATIONS	VEGETATION-SITE RULES ELEVATION (m)	ASPECT	SLOPE
3	4	PIPO/PHMA5			
3	4	PIPO/SYAL			
3	4	PIPO/SYOR2			
4	2	PIPO/CRDO2		NOT MAPPED	
4	2	POTR15/COSE16			
4	4	PSME/PSSP6	458-1981	ALL	ALL
4	4	PSME/FEID			
4	4	PIPO/FEID			
4	4	PIPO/PSSP6			
4	4	PIPO/PUTR2			
4	4	PIPO/STCO4			

SHRUBLANDS

1	1	SAWO/CAAQ		NOT MAPPED	
1	1	SAWO/CARO6			
1	1	SAWO/SWPE-PEGR2			
1	1	SAPL2/CASC12			
1	1	SAPL2/CAAQ-CARO6			
1	1	SACO2/CASC12			
1	1	B EGL/CARO6			
2	1	SAEA/CAAQ		NOT MAPPED	
2	1	SAEA/CARO6			
2	1	SABO2/CACA4			
2	1	SAGE2/CACA4			
2	3	ARTRV-SYOR2/FEID	762-3047	ALL	ALL
2	3	ARTRV-SYOR2/PSSP6			
3	1	SABO2/CAAQ		NOT MAPPED	
3	1	SABO2/CARO6			
3	1	SAGE2/CARO6			
3	1	COSE16/HELA4			
3	1	ALIN2/COSE16			
3	1	ALIN2/RIHU			
3	1	COSE16			
4	1	BEOC2		NOT MAPPED	
4	4	PUTR2/FEID	458-1676	ALL	ALL
4	4	PUTR2/PSSP6			
4	4	CELE3/FEID			
4	4	CELE3/PSSP6			
4	4	ARTRV/PSSP6			
4	4	ARTRV/FEID			

HERBACEOUS

1	3	GERO2	2286-3047	ALL	LT60
1	3	JUDR-CAREX SPP.			
1	3	ALPINE GRASSLAND			
2	1	CACA4	915-1828	FLAT,NE	LT30
2	1	CAAQ			
2	1	CABU6			
3	1	CANE2	1372-1523	FLAT	FLAT
3	1	JUBA			
3	1	ELPA3			

M332B BITTERROOT VALLEY SECTION

TEMP	MOIS	PLANT ASSOCIATIONS	VEGETATION-SITE RULES		
COLD- 1	WET-1		ELEVATION (m)	ASPECT	SLOPE

FORESTS

1	1	ABwCACA4		NOT MAPPED:	
1	2	ABLA/MEFE	1067-2285	FLAT,NE	LT60
1	3	LALY-ABLA			
1	3	ABLA/LUGLH			
1	3	ABLA/VASC	1982-2743	ALL	LT60
1	3	ABLA-PIAL/VASC			
1	4	PIAL SERIES	2439-2743	FLAT	LT30
1	4	PIAL-ABLA			
2	1	PICEA/EQAR		NOT MAPPED	
2	1	THPL/ATFI			
2	2	ABLA/LIBO3	1220-2133	FLAT,SW	LT60
2	2	ABwCLuN2			
2	2	PICEA/GATR3			
2	2	ABLA/GATR3			
2	2	PICEA/CLUN2			
2	3	ABLA/VACE	1524-2133	ALL	LT60
2	3	PSME/VAGL			
2	3	ABGR/XETE			
2	3	ABLA/XETE			
2	3	ABLA/VAGL			
2	4	PSME/VACE		NOT MAPPED	
2	4	PICEA/VACE			
3	1	ABGR/SETR	1524-700	FLAT,NE	LT60
3	1	PICEA/COSE16			
3	2	ABGR/CLUN2	1067-1676	FLAT,NE	LT60
3	2	THPL/CLUN2			
3	2	ABGR/LIBO3			
3	3	PSME/CARU	915-2133	ALL	LT60
3	3	PSME/PHMA5			
3	3	PSME/LIBO3			
3	4	PSME/SPBE2	1067-2133	ALL	LT60
3	4	PSME/SYAL			
4	1	POTR15/COSE16	915-1523	FLAT	FLAT
4	1	PSME/COSE16			
4	1	PIPO/COSE16			
4	2	POTR15/SAEX		NOT MAPPED	
4	3	PIPO/SYAL	1220-1676	NE	5-29
4	4	PIPO/PSSP6	915-1828	ALL	LT60
4	4	PIPO/PUTR2			
4	4	PIPO/FEID			
4	4	PSME/FESC			
4	4	PSME/FEID			

SHRUBLANDS

1	1	SAPL2/CASC12		NOT MAPPED'	
1	1	SACA4/CARO6			
1	1	KAMI/CASC12			
2	1	SAGE2/CAAQ	1220-1371	FLAT	FLAT
2	1	SAGE2/CARO6			
2	1	SAWO/CAAQ			

M332B BITTERROOT VALLEY SECTION

TEMP COLD-1	MOIS WET-1	PLANT ASSOCIATIONS	VEGETATION-SITE RULES ELEVATION (m)	ASPECT	SLOPE
2	1	SAGE2/CACA4			
2	1	B EGL/CARO6			
2	2	ALIN2		NOT MAPPED	
2	2	ALVIS			
2	2	SABE2			
3	1	SALU2/CARO6		NOT MAPPED	
3	1	SALU2/CACA4			
3	1	SADR			
3	2	SALUL		NOT MAPPED	
3	2	COSE16			
3	3	PEFL15/DECE	1372-1676	ALL	LT30
3	3	PEFL15/FEID			
3	3	ARTR2FESC			
3	4	CELE3/PSSP6		NOT MAPPED	
4	4	ARTR2/PSSP6	915-1066	NE,SW	5-29
4	4	PUTR2/FEID			
4	4	ARTR2/FEID			

HERBACEOUS

1	1	CASI2		NOT MAPPED	
1	1	CASC12			
2	1	ELQU2		NOT MAPPED	
2	1	ELPA3			
2	1	SETR			
2	1	CALI7			
2	1	CACA4			
2	1	CAAQ			
2	1	CABU6			
2	1	CALA11			
2	2	DECE-CAREX SP.		NOT MAPPED	
2	2	DECE			
2	3	FEID-DECE		NOT MAPPED	
3	1	EQFL		NOT MAPPED	
3	1	GLBO			
3	1	CARO6			
3	2	POPA2		NOT MAPPED	
3	2	JUBA			
3	2	CANE2			
3	3	FEID-STRJ2	1220-1371	NE,SW	5-29
3	3	FESC-FEID			
4	1	TYLA		NOT MAPPED	
4	1	PHAR3			
4	1	PHAU7			
4	1	SCAC			
4	4	FESC-PSSP6	915-1828	ALL	LT60
4	4	FEID-PSSP6			
4	4	PSSP6-POSE			
		ROCKS	1982-3200	ALL	ALL

M332C ROCKY MOUNTAIN FRONT SECTION

TEMP	MOIS		VEGETATION—SITE RULES	
COLD-1	WET-1	PLANT ASSOCIATIONS	ELEVATION (m) ASPECT	SLOPE

FORESTS

1	1	ABLA/CACA4	2134–2285	FLAT	FLAT
1	1	PIEN/CACA4			
1	1	ABLA/LEGL			
1	2	ABLA/LUGLH	1829–2438	FLAT,NE	LT60
1	2	ABLA/MEFE			
1	2	LALY–ABLA			
1	3	ABLA/VASC	1982–2590	NE,SW	5-59
1	3	ABLA–PIAL/VASC			
1	3	ABLA/RIMO2			
1	4	ABLA/ARCO9	2134-2438	FLAT,SW	LT60
1	4	PIAL SERIES			
1	4	PIAL–ABLA			
1	4	ABLA–PIAL/ARUV			
2	1	PIEN/GATR3	1524-2133	FIAT	FLAT
2	1	ABLA/GATR3			
2	1	ABLA/STAM2			
2	1	POTR5/CACA4			
2	2	PICEA/MAST4	1524–1981	FLAT,NE	LT60
2	2	ABLA/ACRU2			
2	2	ABLA/LIBO3			
2	2	ABLA/CLUN2			
2	2	ABLA/ALVIS			
2	2	PIEN/LIBO3			
2	3	ABLA/CARU	1677-2285	NE,SW	5-59
2	3	PSME/VACE			
2	3	PIEN/VACE			
2	3	ABLA/VACE			
2	3	ABLA/VAGL			
2	3	ABLA/XETE			
2	4	PSME/ARCO9	1982-2133	SW	5-59
2	4	PICEA/SEST3			
2	4	PSME/SPBE2			
2	4	ABLA/CLCOC2			
3	1	PIEN/EQAR	1677– 1931	FIAT	FIAT
3	1	PIEN/COSE16			
3	1	POTR5/COSE16			
3	2	PSME/PHMA5	1220– 1828	FLAT,NE	LT60
3	2	PSME/LIBO3			
3	2	POTR5/OSOC			
3	3	PSME/CARU	1524–1828	FLAT,NE	LT60
3	3	PSME/SYAL			
3	4	PIFL2/JUCO6	1829– 1981	SW	5-59
3	4	PSME/JUCO6			
3	4	PSME/ARUV			
4	1	POTR15/COSE16		NOT MAPPED	
4	1	PSME/COSE16			
4	1	JUSC/COSE16			
4	3	PSME/FESC		NOT MAPPED	
4	3	PSME/FEID			
4	4	PIFL2/PSSP6	1372–1981	ALL	LT60
4	4	PIFL2/FEID			

M332C ROCKY MOUNTAIN FRONT SECTION

TEMP	MOIS		VEGETATION-SITE RULES		
COLD-1	WET-1	PLANT ASSOCIATIONS	ELEVATION (m)	ASPECT	SLOPE

SHRUBLANDS

1	1	SAPL2/CAAQ		NOT MAPPED	
1	1	SAPL2/CASC12			
1	1	SARE2/CALE4			
1	1	KAMI/CASC12			
1	2	SAAR16/POBI6	2439-2895	SW	5-59
1	2	PHEM/ANLA3			
1	3	DROC'CARU3	2439-2743	ALL	LT60
2	1	SACA4/CARO6		NOT MAPPED	
2	1	SAWO/CAAQ			
2	1	ALIN2			
2	2	ALVIS		NOT MAPPED	
2	2	PEFL15/DECE			
2	2	ARCA13/FEID			
2	2	SAWO/DECE			
2	3	PEFL15/FEID		NOT MAPPED	
2	4	ARTRV/PSSP6		NOT MAPPED	
3	1	SAGWCAR06		NOT MAPPED	
3	1	SAGE2/CACA4			
3	1	SALU2/CACA4			
3	1	BEOC2			
3	1	SADR			
3	1	SABE2			
3	2	PEFL15/FESC		NOT MAPPED	
3	2	ARCA13/PASM			
3	2	ROWO			
3	3	ARTR2/FESC		NOT MAPPED	
3	3	ARTRV/FEID			
4	1	SAEX		NOT MAPPED	
4	1	SALU2/CARO6			
4	1	COSE16			
4	2	PRVI		NOT MAPPED	
4	2	SYOC			
4	4	ARTRW8/PSSP6		NOT MAPPED	

HERBACEOUS

1	1	CASC12		NOT MAPPED	
1	1	CASC12-CALE4			
1	2	DECE-CAREX		NOT MAPPED	
1	2	CANI2			
1	2	FEID-CASC10			
1	2	DECE-CALE4			
1	3	CASC10-PODI2		NOT MAPPED	
1	4	CARUD		NOT MAPPED	
1	4	GERO2			
3	3	FESC-PSSP6	1220-1828	ALL	LT60
3	3	FESC-FEID			
3	3	FEID-PSSP6			
4	2	SPPE		NOT MAPPED	
4	2	PASM			

M332C ROCKY MOUNTAIN FRONT SECTION

TEMP		MOIS	PLANT ASSOCIATIONS	VEGETATION-SITE RULES		
COLD-1		WET-1		ELEVATION (m)	ASPECT	SLOPE
4		3	PSSP6-PASM		NOT MAPPED	
4		4	PSSP6-BOGR2		NOT MAPPED	
4		4	PSSP6-POSE			
4		4	STCO4-BOGR2			
			ROCKS	1524-2590	NE,SW	60+

M332D BELT MOUNTAINS SECTION

TEMP	MOIS		VEGETATION-SITE RULES		
COLD-1	WET-1	PLANT ASSOCIATIONS	ELEVATION (m)	ASPECT	SLOPE

FORESTS

1	1	ABLA/CACA4			NOT MAPPED
1	1	ABLA/LEGL			
1	2	ABLA/ALVIS			NOT MAPPED
1	2	ABLA/LUGLH			
1	2	ABLA/MEFE			
1	2	LALY-ABLA			
1	3	ABLA/VASC	Km-2895	ALL	LT60
1	3	ABLA-PIAL/VASC			
1	3	ABLA/RIMO2			
1	4	ABLA/ARCO9	2439-2743	ALL	LT60
1	4	PIAL SERIES			
1	4	PIAL-ABLA			
2	1	PIEN/GATR3			NOT MAPPED
2	1	ABLA/GATR3			
2	1	PIEN/EQAR			
2	1	ABLA/STAM2			
2	1	POTR5/CACA4			
2	2	PICEA/MAST4	1677-2285	NE, FLAT	LT60
2	2	ABLA/ACRU2			
2	2	ABLA/LIBO3			
2	2	PIEN/LIBO3			
2	3	PSME/VACE	1677-2590	ALL	LT60
2	3	PSME/VAGL			
2	3	PICEA/VACE			
2	3	ABLA/VACE			
2	3	ABLA/VAGL			
2	3	ABLA/XETE			
2	3	ABLA/CARU			
2	4	PSME/ARCO9	1677-2438	ALL	LT60
2	4	PSME/SPBE2			
2	4	PICEA/SEST3			
2	4	ABLA/CLCOC2			
2	4	ABLA/CAGE2			
3	1	PSME/COSE16	1220-1676	FLAT	FLAT
3	1	PIEN/COSE16			
3	1	POTR15/COSE16			
3	1	POAN3/COSE16			
3	2	PIEN/PHMA5	1677-2438	ALL	LT60
3	2	PSME/LIBO3			
3	2	PSME/PHMA5			
3	3	PSME/CARU	1067-2438	ALL	LT60
3	3	PSME/SYAL			
3	3	PSME/SYOR2			
3	4	PSME/ARUV	1220-1371	ALL	LT60
3	4	PSME/JUCO6			
3	4	PIFL2/JUCO6			
4	1	PIPO/COSE16			NOT MAPPED
4	1	JUSC/COSE16			
4	2	PIPO/PRVI			NOT MAPPED

M332D BELT MOUNTAINS SECTION

TEMP	MOIS	PLANT ASSOCIATIONS	VEGETATION--SITE RULES	ELEVATION (m)	ASPECT	SLOPE
COLD -1	WET -1					
4	3	PSME/FESC	1220-2438	ALL	LT30	
4	3	PSME/FEID				
4	4	PIFL2/FEID	1372-2285	ALL	LT60	
4	4	PIFL2/PSSP6				
4	4	PIPO/PSSP6				
4	4	PIPO/FEID				
4	4	PIPO/PUTR2				
4	4	PIFL2/CELE3				
4	4	JUSC/PSSP6				

SHRUBLANDS

1	1	SAPL2/CAAQ			NOT MAPPED	
1	1	SAPL2/CASC12				
1	1	SARE2/CALE4				
1	1	KAMI/CASC12				
1	2	SAAR16/CALE4			NOT MAPPED	
1	2	SAAR16/POBI6				
1	3	DROC/CARU3	2439-3200	ALL	LT60	
2	1	ALIN2			NOT MAPPED	
2	1	SAWO/CAAQ				
2	1	SACA4/CARO6				
2	2	PEFL15/DECE	1677-1981	FLAT,SW	LT30	
2	2	ARCA13/FEID				
2	2	SAWO/DECE				
2	2	ALVIS				
2	3	PEFL15/FEID	1372-1676	NE,SW	5-29	
2	3	PUTR2/FEID				
2	4	ARTRV/PSSP6	1524-1676	ALL	LT30	
3	1	SAGE2/CARO6			NOT MAPPED	
3	1	SAGE2/CACA4				
3	1	SALU2/CACA4				
3	1	BEOC2				
3	1	SADR				
3	1	SABE2				
3	2	PEFL15/FESC			NOT MAPPED	
3	2	ARCA13/PASM				
3	2	ROWO				
3	3	ARAR8/FEID	1067-2133	ALL	LT60	
3	3	ARTRV/FEID				
3	3	ARTR2FESC				
3	3	ARTR4/FEID				
3	4	PUTR2/PSSP6			NOT MAPPED	
3	4	CELE3/PSSP6				
4	1	SAEX			NOT MAPPED	
4	1	SALU2/CARO6				
4	1	COSE16				
4	2	SAVE4/LECI4			NOT MAPPED	
4	2	PRVI				
4	2	SYOC				
4	3	SAVE4/PASM			NOT MAPPED	

M332D BELT MOUNTAINS SECTION

TEMP	MOIS	PLANT ASSOCIATIONS	VEGETATION—SITE RULES		
COLD-1	WET-1		ELEVATION (m)	ASPECT	SLOPE

4	4	ARNO4/PSSP6	1372–1676	ALL	LT30
4	4	ARAR8/PSSP6			
4	4	ARTRW8/PSSP6			
4	4	ARTRW8/STCO4			

HERBACEOUS

1	1	CASC12		NOT MAPPED	
1	1	CASC12–CALE4			
1	2	DECE- CAREX	2439–2590	FLAT	FLAT
1	2	CAN12			
1	2	DECE–CALE4			
1	3	CASC10/PODI2		NOT MAPPED	
1	3	CASC10–GERO2			
1	4	CAEL3		NOT MAPPED	
2	1	SETR		NOT MAPPED	
2	1	ELQU2			
2	1	CACA4			
2	1	CAL17			
2	1	CAAP3			
2	1	CAAQ			
2	1	CASI2			
2	2	FEID-DECE	2744–3047	NE	5-29
2	2	FEID–ELTR7			
2	3	FEID–CAFI	2591–3047	ALL	LT60
2	4	FEKI2		NOT MAPPED	
3	1	SCAC		NOT MAPPED	
3	1	ELPA3			
3	1	GLBO			
3	1	EQFL			
3	1	PHAR3			
3	1	CANE2			
3	1	CAR06			
3	2	FEID–STRI2	1829–2133	FLAT	FLAT
3	2	POPA2			
3	3	FESC–PSSP6	1067-2285	ALL	LT60
3	3	FESC–FEID			
3	3	FEID-PSSP6			
4	1	TYLA		NOT MAPPED	
4	1	SCMA			
4	1	sCPu3			
4	2	LEC14	1067–1219	NE	5-29
4	2	SPPE			
4	2	PASM			
4	3	PSSP6–PASM	915–1828	ALL	LT30
4	4	STCO4–BOGR2	915–1828	ALL	LT30
4	4	PSSP6–BOGR2			
4	4	PSSP6–POSE			
		ROCKS	2286–2590	FLAT	FLAT

M332E BEAVERHEAD MOUNTAINS SECTION

TEMP	MOIS		VEGETATION-SITE RULES		
COLD- 1	WET-1	PLANT ASSOCIATIONS	ELEVATION (m)	ASPECT	SLOPE

FORESTS

1	1	PIEN/EQAR		NOT MAPPED	
1	1	PIEN/CADI6			
1	1	ABwCACA4			
1	2	LALY-ABLA	2591-2743	NE	5-59
1	2	ABLA-PIAL/VASC			
1	2	ABLA/VASC			
1	3	PIAL/VASC	1829-3200	ALL	LT60
1	3	ABLA/RIMO2			
1	3	ABLA/ARCO9			
1	3	ABLA/VACE			
1	4	PIEN/HYRE70	2439-3352	ALL	LT60
1	4	PIAL-ABLA			
1	4	PIAL/FEID			
1	4	ABLA/CLCOC2			
1	4	PICO/FEID			
2	1	ABLA/STAM2		NOT MAPPED	
2	1	ABLA/MEFE			
2	2	PIEN/LIBO3	2286-2743	FLAT,NE	LT30
2	2	PIEN/GATR3			
2	2	ABLA/ACGL			
2	2	ABLA/LIBO3			
2	2	ABLA/THOC			
2	3	PSME/CAGE2	1982-2895	ALL	LT60
2	3	PSME/SPBE2			
2	3	ABLA/CARU			
2	3	ABLA/CAGE2			
2	3	PICEA/SEST3			
2	3	ABLA/SYAL			
2	4	PIFL2/JUCO6	1677-2895	ALL	LT60
2	4	PSME/JUCO6			
2	4	PSME/ARCO9			
3	1	POTR15/COSE16	1220- 1523	FLAT	FLAT
3	2	PSME/ACGL	1372- 1523	FLAT	FLAT
3	2	POTR5/SHCA			
3	2	POTR5/AMAL2-SYOR2/THFE			
3	2	POTR5/AMAL2-SYOR2/CARU			
3	2	POTR5/THFE			
3	3	PSME/CARU	1220-2743	ALL	LT60
3	3	PSME/MARE11			
3	3	PSME/PHMA5			
3	3	PSME/SYAL			
3	3	POTR5/CARU			
3	3	POTR5/SYOR2/CARU			
3	3	POTR5/SYOR2/THFE			
3	4	PIFL2/CELE3	1372-2743	ALL	ALL
3	4	PSME/CELE3			
3	4	PSME/SYOR2			
3	4	PIFL2/FEID			
3	4	PIFL2/FEK12			
3	4	PIFL2/PSSP6			

M332E BEAVERHEAD MOUNTAINS SECTION

TEMP	MOIS	PLANT ASSOCIATIONS	VEGETATION-SITE RULES		
COLD-1	WET-1		ELEVATION (m)	ASPECT	SLOPE
3	4	PSME/PSSP6			
3	4	PSME/FEID			
4	1	PIFL2/PEFL15/DIST3		NOT MAPPED	
4	2	POTR5/WYAM		NOT MAPPED	
4	3	POTR5/STCO4		NOT MAPPED	
4	4	JUOS/ARNO4	1220-2743	ALL	LT60
4	4	JUOS/ARTR2			
4	4	JUOS/STCO4			
4	4	JUOS/LEAM			

SHRUBLANDS

1	1	SACO2/CASC12	2591-2743	FLAT	FLAT
1	1	PHEM/ANLA3			
1	1	SARE2/CALE4			
1	1	SAAR16/CALE4			
1	1	SAPL2/CAAQ-CARO6			
1	1	SAPL2/CASC12			
1	2	DROC		NOT MAPPED	
1	2	SAAR16/POBI6			
1	4	ARART/FEID		NOT MAPPED	
2	1	SABO2/CACA4	2X36-2590	FLAT.	FLAT
2	1	SAEA/CAAQ			
2	1	SAEA/CARO6			
2	1	SAGE2/CARO6			
2	1	SAGE2/POPA2			
2	1	SAWO/CAAQ			
2	1	SAWO/CARO6			
2	1	SAWO/POPA2			
2	2	ARTR4/FEID	1067-3200	ALL	LT60
2	2	ARTRV/FEID			
2	2	ARTRV-SYOR2/FEID			
2	3	ARTRV-SYOR2/PSSP6	1067-2590	ALL	LT60
2	3	ARTR4/PSSP6			
2	3	ARTRV/PSSP6			
3	1	ALIN2/COSE16	1677-2438	FLAT	FLAT
3	1	COSE16/HELA4			
3	1	SABO2/CAAQ			
3	1	SABO2/CANE2			
3	1	SABO2/CARO6			
3	1	SABO2/EQAR			
3	1	SABO2/MESIC FORB			
3	3	CELE3/PSSP6	1524-2895	ALL	LT60
3	3	ARTRW8/LEAM			
3	3	ARTR2/FEID			
3	3	ARPE6/FEID			
3	4	ARNO4/FEID	1524-2590	ALL	LT60
3	4	ARAR8/PSSP6			
3	4	ARAR8/LEAM			
4	1	BEOC2		NOT MAPPED	
4	3	ATCO/LEAM		NOT MAPPED	

M332E BEAVERHEAD MOUNTAINS SECTION

TEMP	MOIS		VEGETATION-SITE RULES		
C O L D - 1	W E T - 1	PLANT ASSOCIATIONS	ELEVATION (m)	ASPECT	SLOPE

4	4	SPAR2-ARFR4-POSE	1067-2285	ALL	LT60
4	4	SPAR2-ORSW			
4	4	ARNO4/POSE			
4	4	ARNO4/ORHY			
4	4	ARNO4/LEAM			
4	4	ARTRW8/PSSP6			
4	4	ATCO/ORHY			
4	4	ATCO/PSSP6			

HERBACEOUS

1	1	CACA4	2896-3047	FIAT	FLAT
1	1	CASC12			
1	2	FEID-PODI2	2744-3352	ALL	L60
1	2	FEID-CASC10			
1	2	JUDR- CAREX SPP.			
1	3	FEID-ERCA8	2744-3200	ALL	L60
1	3	CAPU			
1	3	GER02			
1	4	CARUD	2744-2895	SW	5-59
1	4	CAEL3-LUAR3			
2	1	DECE		NOT MAPPED	
2	1	CAAQ			
2	1	CASI2			
2	1	DECE-CALE4			
2	2	FEID- DECE	2439-2590	SW	5-29
2	3	FEID-FEKI2	2591-2895	ALL	LT30
2	4	FEKI2	2896-3200	NE,SW	5-29
2	4	FEKI2-CAEL3			
2	4	FEKI2-PHPU5			
2	4	FEKI2-POCU3			
3	1	CANE2		NOT MAPPED	
3	1	ELPA3			
3	1	ELQU2			
3	1	JUBA			
3	3	FEID-PSSP6	1220-2438	NE,SW	5-29
3	3	FESC-FEID			
3	4	CAST40-POSE		NOT MAPPED	
4	4	LEAM-ENNU		NOT MAPPED	
		ROCKS	2591-3505	ALL	LT60

M332F CHALLIS VOLCANICS SECTION

TEMP	MOIS		VEGETATION-SITE RULES		
C O L D - 1	W E T - 1	PLANT ASSOCIATIONS	ELEVATION (m)	ASPECT	SLOPE

FORESTS

1	1	ABLA/CACA4		NOT MAPPED	
1	2	ABLA/RIMO2		NOT MAPPED	
1	3	ABLA/VASC	1829-3047	ALL	LT60
1	3	PIAL-ABLA			
1	4	PICO/FEID	1982-2895	ALL	LT60
1	4	ABLA/ARCO9			
2	1	ABLA/STAM2		NOT MAF'PED	
2	1	PIEN/EQAR			
2	2	ABLA/LIBO3		NOT MAPPED	
2	2	ABLA/VACE			
2	3	ABLA/CAGE2	1982-3047	ALL	LT60
2	3	ABLA/CARU			
2	3	ABLA/SPBE2			
2	4	PSME/JUCO6		NOT MAPPED	
2	4	PSME/ARCO9			
3	1	POTR15/COSE16	2286-2743	NE,SW	5-59
3	2	PSME/ACGL		NOT MAPPED	
3	3	PSME/SYAL	1524-2590	FLAT,NE	LT60
3	3	PSME/CAGE2			
3	3	PSME/CARU			
3	4	PSME/SYOR2	1067-2895	ALL	ALL
3	4	PSME/MARE11			
4	4	PIFL2/CELE3	1524-2285	ALL	LT60
4	4	PSME/CELE3			
4	4	PSME/FEID			
4	4	PSME/PSSP6			

SHRUBLANDS

1	1	SACO2/CASC12		NOT MAPPED	
1	1	SAPL2/CAAQ-CARO6			
1	1	SAPL2/CASC12			
1	1	SAWO/SWPE-PEGR2			
1	2	DROC	1524-1828	FLAT,NE	LT30
1	3	ARCA13/FEID		NOT MAPPED	
1	4	ARART/FEID		NOT MAPPED	
2	1	B EGL/CARO6		NOT MAPPED	
2	1	PEFL15/DECE			
2	1	SABO2/CACA4			
2	1	SAEA/CAAQ			
2	1	SAEtVCAR06			
2	1	SAGE2/CACA4			
2	1	SAGE2/CARO6			
2	1	SAWO/CAAQ			
2	1	SAWO/CARO6			
2	1	PEFL15/FEID			
2	2	ARTRV/FEID	1524-3047	ALL	LT60
2	2	ARTR4/FEID			
2	2	ARAR8/FEID			
2	2	ARTR4/PSSP6			
2	3	CELE3/HODU	1372-2895	ALL	LT60

M332F CHALLIS VOLCANICS SECTION

TEMP	MOIS	PLANT ASSOCIATIONS	VEGETATION—SITE RULES	ELEVATION (m)	ASPECT	SLOPE
COLD -1	WET -1					
2	3	ARTRV/PSSP6				
2	3	ARTRV- SYOR2/PSSP6				
3	1	ALIN2/COSE16			NOT MAPPED	
3	1	ALIN2/RIHU				
3	1	COSE16/HELA4				
3	1	SABO2/CAAQ				
3	1	SABO2/CARO6				
3	3	CELE3/PSSP6		1372–1828	FLAT	FLAT
4	1	BEOC2			NOT MAPPED	
4	3	ARTRW8/POSE			NOT MAPPED	
4	4	SPAR2–ARFR4–POSE		1220-2133	ALL	LT60
4	4	SPAR2–ORSW				
4	4	ARNO4/ORHY				
4	4	ARTRW8/PSSP6				
4	4	ARAR8/PSSP6				
4	4	ATCO/PSSP6				
4	4	ATCO/LEAM				

HERBACEOUS

1	1	CACA4			NOT MAPPED	
1	1	CASC12				
1	2	FEID–PODI2			NOT MAPPED	
1	2	CAPS2				
1	2	JUDR–CAREX SPP.				
1	3	FEID–ERCA8		2286–3505	ALL	LT60
1	3	IVGO–ERCA8				
1	3	IVGO–MIOB2				
1	3	CARUD				
1	3	GERO2				
1	4	CAEL3–LUAR3		2896–3505	ALL	LT60
2	1	DECE			NOT MAPPED	
2	1	CAAQ				
2	1	CASI2				
2	1	CABU6				
2	1	SCCE2–CALI				
2	1	DECE- CALE4				
2	1	AGEX–AGSC5				
2	2	FEID-DECE		1677–1828	FLAT	FLAT
2	3	FEID–FEKI2			NOT MAPPED	
2	4	FEKI2			NOT MAPPED	
2	4	FEKI2–CAEL3				
2	4	FEKI2–PHPU5				
2	4	FEKI2–POCU3				
3	1	CANE2			NOT MAPPED	
3	1	ELPA3				
3	1	ELQU2				
3	1	JUBA				
3	4	LEAM–LUAR3			NOT MAPPED	
3	4	CAST40–POSE				
4	1	SCAM2			NOT MAPPED	
4	4	LEAM–ENNU			NOT MAPPED	

M332G BLUE MOUNTAINS SECTION

TEMP	MOIS		VEGETATION-SITE RULES		
COLD- 1	WET- 1	PLANT ASSOCIATIONS	ELEVATION (m)	ASPECT	SLOPE

FORESTS

1	3	ABLA/MEFE	1677-1828	NE	5-29
1	4	ABLA/CAGE2	1677-2743	ALL	LT60
1	4	ABLA/VASC			
1	4	ABLA/PHEM			
1	4	PICO/VASC/CAPE6			
1	4	TSME/VASC			
1	4	TSME/VAME			
1	4	ABGR/VASC			
2	1	ABLA/STAM2	NOT MAPPED		
2	1	PIEN/CLUN2			
2	1	ABGR/TABR2			
2	1	PIEN/EQAR			
2	1	ABGR/SETR			
2	2'	PICO-(POTR5)/SPDO/CAREX	1220-2285	FLAT,NE	LT60
2	3	ABLA/TRCA	915-2743	ALL	LT60
2	3	ABLA/CLUN2			
2	3	ABLA/LIBO3			
2	3	ABLA/THOC			
2	3	ABGR/ASCA2			
2	3	ABGR/TRCA			
2	3	ABGR/CLUN2			
2	3	ABGR/SYAL			
2	3	PICO/ELGL			
2	3	ABLA/RHAL2			
2	4	ABLA/CARU	1372-2590	ALL	LT60
2	4	ABLA/VAME			
2	4	ABLA/ARCO9			
2	4	ABGR/VAME			
2	4	ABGR/LIBO3			
2	4	ABGR/COOC2			
3	1	PIPO-POTR5/CAREX-(POA)	610-914	FLAT	FLAT
3	2	ABGR/ACGL	1372-2438	SW	5-59
3	3	PSME/PHMA5	915-1828	ALL	ALL
3	3	PSME/HODI			
3	3	PSME/SYOR2			
3	3	PSME/CELE3			
3	3	PIPO-PSME/PHMA5			
3	4	ABGR/SPBE2	762-2133	ALL	ALL
3	4	ABGR/CARU			
3	4	ABGR/CAGE2			
3	4	PICO/CARU			
3	4	PICO/FEID			
3	4	PICO/PUTR2/FEID			
3	4	PSME/CARU			
3	4	PSME/CAGE2			
3	4	PSME/VAGL			
3	4	PSME/SYAL			
3	4	PSME/SPBE2			
3	4	PSME/PSSP6			
3	4	PIPO-PSME/PUTR2			

M332G BLUE MOUNTAINS SEC-I-ION

TEMP	MOIS	PLANT ASSOCIATIONS	VEGETATION-SITE ELEVATION (m)	RULES ASPECT	SLOPE
C O L D - 1	W E T - 1				
3	4	PIPO/CARU			
3	4	PIPO/CAGE2			
3	4	PIPO/ELGL			
3	4	PIFL2/JUCO6			
4	3	PIPO/ARTRV/PONE2	610-1828	ALL	LT60
4	3	PIPO/PUTR2/FEID			
4	3	PIPO/CELE3			
4	3	PIPO/FEID			
4	3	JUOC-PIPO/ARTR2/PSSP6-(FEID-STIPA)			
4	3	JUOC/PSSP6			
4	3	JUOC/ARAR8/FEID			
4	3	JUOC/ARTR2-PUTR2/PSSP6-FEID			
4	3	JUOC/ARTRV			
4	4	PIPO/PUTR2/PSSP6	762-2133	ALL	LT60
4	4	PIPO/PSSP6			
4	4	JUOC/ARAR8/PSSP6			
4	4	JUOC/ARRI2/POSE			
4	A	JUOC/ARAR8/DAUN-POSE			

SHRUBLANDS

2	1	ALIN2-BEOC2/(SALIX)	1067-1523	FLAT	FLAT
3	2	BEOC2/CRDO2	610-1676	ALL	LT60
3	2	BEOC2/POTR15/SALIX			
3	2	ARCA13/(ELCA11)-PONE3			
3	2	ARCA13/LECI4			
3	3	CRDO2/SYAL	458-1981	ALL	ALL
3	3	CRDO2/ROWO			
3	3	PHMA5-SYAL			
3	3	SYAL-RONU			
3	3	ARTRV/FEID			
4	3	CELE3/PSSP6-FEID	610-2590	ALL	LT60
4	3	CELE3/CARU			
4	3	PUTR2/PSSP6-FEID			
4	3	ARTRV/LECI4			
4	3	ARTRV/CAGE2			
4	3	ARTRW8/LECI4			
4	3	ARTR2/FEID			
4	3	ARTRW8-PERA4/FEID			
4	3	ARAR8-PUTR2/PSSP6-FEID			
4	3	ARAR8/FEID			
4	3	ARTR4/FEID			
4	3	SAVE4/DISP			
4	3	SAVE4/LECI4			
4	4	CELE3/PSSP6	610-1981	ALL	LT60
4	4	PUTR2/PSSP6			
4	4	ARTR2/STCO4			
4	4	ARTRV/PSSP6			
4	4	ARTRW8/PSSP6			
4	4	ARTRW8/POSE			
4	4	ARTRW8-PUTR2/PSSP6			
4	4	ARTR4/PSSP6			

M332G BLUE MOUNTAINS SECTION

TEMP COLD-1	MOIS WET-1	PLANT ASSOCIATIONS	VEGETATION-SITE RULES ELEVATION (m)	ASPECT	SLOPE
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4	4	ARAR8/PSSP6			
4	4	ARAR8/POSE			
4	4	CELE3/PSSP6			
4	4	ARRI2/PSSP6			
4	4	ARRI2/POSE			
4	4	ARTRW8-ATCO			
4	4	GLNE3/PSSP6			
4	4	RHGL/PSSP6			

HERBACEOUS

1	1	CALA11		NOT MAPPED	
1	1	CANI2			
1	1	CASC12			
1	1	CASP5			
1	3	FEID	2591-2895	ALL	LT60
1	3	FEOV			
2	2	DECE	1677-1981	FLAT	FLAT
2	3	CAHO5-FEVI	610-2743	ALL	LT60
2	3	FEVI-LUARL5			
2	3	PSSP6-FEID (PALOUSE)			
2	4	ELGL		NOT MAPPED	
2	4	PONE3			
3	3	FEID-CAHO5	458-1828	ALL	LT60
3	3	PSSP6-ERHE2			
3	3	FEID-KOMA			
3	3	FEID-SYAL			
3	3	RONU/FEID			
3	4	PSSP6-ARLO3-SPCR	153-1523	ALL	LT60
4	2	DECE-CAREX	915-1523	FLAT	FLAT
4	3	DISP-(SCNE)	762-1676	ALL	LT60
4	3	LECI4 (BOTTOMLANDS)			
4	3	PONE3-PULE-ELEL55			
4	4	PSSP6-POSE	153-1676	ALL	ALL
4	4	PSSP6-OPPO-(POSE)			
4	4	DAUN-POSE			
4	4	PSSP6-POSE (LITHOSOL)			
4	4	ARLO3-POSE			
4	4	ERST4-POSE			
4	4	ERMI4-PHOR2			
4	4	ERCO12-POSE			

M333A OKANOGAN HIGHLANDS SECTION

TEMP	MOIS		VEGETATION-SITE RULES		
COLD-1	WET-1	PLANT ASSOCIATIONS	ELEVATION (m)	ASPECT	SLOPE

FORESTS

1	1	ABLA/CACA4		NOT MAPPED	
1	2	A	1524-2133	NE	s-59
1	2	ABLA/RHAL2			
1	2	TSME/MEFE			
1	2	TSHE/MEFE			
1	2	TSHE/RHAL2			
1	3	ABLA-PIAL/VASC	1372-2133	ALL	LT60
1	3	ABLA/VASC			
1	3	ABLA/XETE			
1	3	ABLA/LUGLH			
1	3	TSME/XETE			
1	3	TSME/LUGLH			
1	4	PIAL/CARU	1829-1981	SW	30-59
1	4	ABLA/CARU			
1	4	ABLA-PIAL/ARUV			
2	1	ABLA/TRCA		NOT MAPPED	
2	1	ABLA/STAM2			
2	1	ABLA/OPHO			
2	1	THPL/OPHO			
2	1	PIEN/EQAR			
2	2	TSME/CLUN2	610-2133	ALL	ALL
2	2	TSHE/CLUN2			
2	2	ABLA/CLUN2			
2	2	ABLA/LIBO3			
2	2	ABLA/COCA13			
2	2	TSHE/ARNU2			
2	2	TSHE/XETE			
2	2	TSHE/RUPE			
2	2	THPL/VAME			
2	2	THPL/LIBO3			
2	3	PSME/VACCI	762-1981	ALL	ALL
2	3	PSME/VACE			
2	3	ABGR/VACE			
2	3	ABLA/VACE			
2	3	ABGR/XETE			
2	4	PSME/CARU	1067-1676	FLAT,SW	LT60
2	4	PSME/SPBE2			
2	4	PSME/ARUV			
3	1	TSHE/GYDR	458-609	FLAT,SW	LT30
3	1	THPL/ARNU2			
3	1	THPL/GYDR			
3	1	THPL/ATFI			
3	2	ABGR/PHMA5	610-1371	ALL	LT60
3	2	ABGR/LIBO3			
3	2	ABGR/CLUN2			
3	2	ABGR/TABR2			
3	2	ABGR/PAMY			
3	2	THPL/CLUN2			
3	2	THPL/ASCA2			
3	2	PSME/LIBO3			

M333A OKANOGAN HIGHLANDS SECTION

TEMP	MOIS	PLANT ASSOCIATIONS	VEGETATION-SITE RULES		
COLD - 1	WET - 1		ELEVATION (m)	ASPECT	SLOPE
3	3	PSME/PHMA5	305-1523	ALL	ALL
3	3	PSME/PHMA5-LIBO3			
3	3	PSME/HODI			
3	3	PSME/SYAL			
3	4	PSME/CARU	305-1676	ALL	LT60
3	4	PIPO-PSME/PSSP6			
4	1	POTR5/COSE16	458-761	FLAT	FLAT
4	1	POTR15/COSE16			
4	1	ALIN2-POTR5/BEGL-RIBES/CAREX			
4	3	PIPO/FEID	305-914	ALL	ALL
4	3	PIPO/SYAL			
4	3	PIPO/PHMA5			
4	3	PSME/SYOR2			
4	3	PSME/FEID			
4	3	PIPO/FESC			
4	4	PIPO/PSSP6	153-1066	ALL	LT60
4	4	PIPO/PUTR2			
4	4	PIPO/PUTR2/FEID			
4	4	PIPO/PUTR2/ORHY			
		PIPO/PUTR2/PSSP6			

SHRUBLANDS

1	1	BEGL/CARO6		NOT MAPPED	
1	2	CAME7-PHEM		NOT MAPPED	
2	1	ALVIS		NOT MAPPED	
2	4	ARTRV/PSSP6		NOT MAPPED	
3	1	ALIN2		NOT MAPPED	
3	1	COSE16			
3	1	SPDO			
3	3	PUTR2/FEID	153-1066	ALL	LT60
3	3	ARTR4/FESC			
3	3	ARTR4/FEID			
4	2	SAVE4		NOT MAPPED	
4	3	PUTR2/PSSP6	153-1371	ALL	LT60
4	3	PUTR2/STCO4			
4	3	ARTR4/STCO4			
4	3	ARTR4/PSSP6			
4	4	ARTR2/STCO4	153-304	SW	s-29
4	4	ARTRT/PSSP6			

M333A OKANOGAN HIGHLANDS SECTION

TEMP **MOIS** **VEGETATION-SITE RULES**
COLD-1 WET-1 **PLANT ASSOCIATIONS** **ELEVATION (m) ASPECT SLOPE**

HERBACEOUS

1	1	CANI2		NOT MAPPED
1	1	CAPS2		
1	2	FEVI	1982-2285	FLAT FLAT
1	3	FEVI-FEID		NOT MAPPED
2	1	CAR06		NOT MAPPED
2	1	CAAQ		
2	1	CALA30		
2	1	CALA11		
2	1	CACA4		
2	3	FEID-FESC	458-609	SW s-29
3	1	SCAC		NOT MAPPED
3	1	NULUP		
3	2	JUBA		NOT MAPPED
3	3	FEID-ERHE2	458-1371	SW s-59

M333B FLATHEAD VALLEY SECTION

TEMP	MOIS		VEGETATION-SITE RULES		
COLD-1	WET-1	PLANT ASSOCIATIONS	ELEVATION (m)	ASPECT	SLOPE

FORESTS

1	1	ABLA/CACA4			NOT MAPPED
1	1	TSME/STAM2			
1	2	ABLA/LUGLH	1372-2285	ALL	LT60
1	2	TSME/MEFE			
1	2	ABLA/MEFE			
1	2	TSME/LUGLH			
1	2	TSHE/MEFE			
1	3	ABLA/VASC	1677-2133	ALL	ALL
1	3	LALY-ABLA			
1	3	ABLA-PIAL/VASC			
1	4	PIAL-ABLA	1982-2438	ALL	LT60
1	4	PIAL SERIES			
2	1	PICEA/EQAR			NOT MAPPED
2	1	ABLA/OPHO			
2	1	TSME/STAM2			
2	1	ABLA/STAM2			
2	1	THPL/ATFI			
2	2	ABLA/LIBO3	458-1676	ALL	ALL
2	2	THPL/GYDR			
2	2	TSME/CLUN2			
2	2	ABLA/CLUN2			
2	2	TSHE/GYDR			
2	2	PICEA/GATR3			
2	2	PICEA/CLUN2			
2	3	TSME/XETE	1372-2285	ALL	ALL
2	3	ABLA/VACE			
2	3	ABGR/XETE			
2	3	ABLA/XETE			
2	3	TSHE/XETE			
2	3	ABLA/VAGL			
2	4	PSME/VACE			NOT MAPPED
2	4	PICEA/VACE			
3	1	THPL/OPHO			NOT MAPPED
3	1	ABGR/SETR			
3	1	PICEA/COSE16			
3	2	THPL/CLUN2	458-1523	ALL	ALL
3	2	THPL/ASCA2			
3	2	TSHE/CLUN2			
3	2	ABGR/LIBO3			
3	2	ABGR/CLUN2			
3	3	PSME/CARU	153-1523	ALL	LT30
3	3	PSME/PHMA5			
3	3	PSME/LIBO3			
3	3	PSME/SYAL			
3	3	ABGR/PHMA5			
3	3	PSME/VAGL			
3	4	PSME/ARUV	610-1219	ALL	LT60
4	1	POTR5/COSE16			NOT MAPPED
4	1	POTR15/COSE16			
4	1	PICEA/LYAM3			

M333B FLATHEAD VALLEY SECTION

TEMP	MOIS	PLANT ASSOCIATIONS	VEGETATION-SITE RULES		
COLD-1	WET-1		ELEVATION (m)	ASPECT	SLOPE

4	1	PSME/COSE16			
4	1	PIPO/COSE16			
4	2	POTR5/OSOC		NOT MAPPED	
4	3	PIPO/SYAL		NOT MAPPED	
4	4	PIPO/PSSP6	610-1371	ALL	LT60
4	4	PIPO/FEID			
4	4	PSME/FESC			
4	4	PSME/PSSP6			
4	4	PSME/FEID			

SHRUBLANDS

1	1	SAPL2/CASC12		NOT MAPPED	
1	1	SACA4/CARO6			
1	1	KAMI/CASC12			
1	2	PHEM/ANLA3		NOT MAPPED	
2	1	SAGE2/CAAQ		NOT MAPPED	
2	1	SAGE2/CACA4			
2	1	B EGL/CARO6			
2	2	SAWO/DECE		NOT MAPPED	
2	2	ALIN2			
2	2	ALVIS			
2	2	SABE2			
3	1	SALU2/CARO6		NOT MAPPED	
3	1	SALU2/CACA4			
3	1	SADR			
3	2	SALUL		NOT MAPPED	
3	2	COSE16			
3	2	SAEX			
3	3	PEFL15/FESC		NOT MAPPED	
3	3	PEFL15/DECE			
3	3	ARTR2/FESC			
4	2	CRDO2		NOT MAPPED	
4	4	ARTR2/PSSP6		NOT MAPPED	
4	4	ARTR2/FEID			

M333B FLATHEAD VALLEY SECTION

TEMP	MOIS		VEGETATION-SITE RULES		
COLD- 1	WET-1	PLANT ASSOCIATIONS	ELEVATION (m)	ASPECT	SLOPE

HERBACEOUS

1	1	CACA4	NOT MAPPED		
1	1	SETR			
1	1	CASI2			
1	1	CAsc12			
1	2	ALPINE RNLND	NOT MAPPED		
2	1	ELQU2	NOT MAPPED		
2	1	ELPA3			
2	1	CAR06			
2	1	CABU6			
2	1	CAAQ			
2	1	CALA11			
2	2	DECE- CAREX	NOT MAPPED		
2	2	DECE			
2	3	FEID-ELTR7	NOT MAPPED		
3	1	PHAU7	NOT MAPPED		
3	1	EQFL			
3	1	GLBO			
3	1	CAAP3			
3	2	POPA2	NOT MAPPED		
3	2	JUBA			
3	2	CANE2			
3	3	FEID-DECE	NOT MAPPED		
3	3	FEID-STR12			
3	4	FESC-FEID	NOT MAPPED		
4	1	TYLA	NOT MAPPED		
4	1	SCAC			
4	3	FESC-PSSP6	NOT MAPPED		
4	3	FEID-PSSP6			
4	4	PSSP6-POSE	610-1066	ALL	LT60

M333C NORTHERN ROCKIES SECTION

TEMP	MOIS		VEGETATION-SITE RULES	
C O L D - 1	W E T - 1	PLANT ASSOCIATIONS	ELEVATION (m) ASPECT	SLOPE

FORESTS

1	1	ABLA/CACA4		NOT MAPPED	
1	2	ABLA/MEFE	1220-2590	ALL	ALL
1	3	LALY-ABLA	1829-2285	FLAT,NE	ALL
1	3	ABLA/LUGLH			
1	4	ABLAJVASC	1982-2285	ALL	ALL
1	4	ABLA-PIAL/VASC			
1	4	PIAL-ABLA			
2	1	PICEA/EQAR		NOT MAPPED	
2	1	ABLA/OPHO			
2	1	THPL/ATFI			
2	2	ABLA/LIBO3	610-1828	ALL	ALL
2	2	THPL/GYDR			
2	2	TSME/CLUN2			
2	2	ABLA/CLUN2			
2	2	PICEA/CLUN2			
2	3	ABLA/VACE	1220-2133	SW	GTS
2	3	PSME/LIBO3			
2	3	ABGR/XETE			
2	3	ABLA/XETE			
2	3	ABLA/VAGL			
2	4	PSME/VACE	762-1219	ALL	LT30
2	4	PICEA/VACE			
3	1	THPL/OPHO		NOT MAPPED	
3	1	ABGR/SETR			
3	1	PICEA/COSE16			
3	2	THPL/CLUN2	1067-1523	ALL	LT60
3	2	THPL/ASCA2			
3	2	ABGR/LIBO3			
3	2	ABGR/CLUN2			
3	3	PSME/CARU	1067-1676	SW	s-59
3	3	PSME/PHMA5			
3	3	ABGR/PHMA5			
3	3	PSME/VAGL			
3	4	PSME/SYAL		NOT MAPPED	
4	1	POTR5/COSE16		NOT MAPPED	
4	1	POTR15/COSE16			
4	1	PICEA/LYAM3			
4	1	PSME/COSE16			
4	2	POTR5/OSOC		NOT MAPPED	

SHRUBLANDS

1	1	SAPL2/CASC12	NOT MAPPED	
1	1	SACA4/CARO6		
1	1	KAMI/CASC12		
1	2	PHEM/ANLA3	NOT MAPPED	
2	1	SAGWCAAQ	NOT MAPPED	
2	1	SAGWCACA4		
2	1	B EGL/CARO6		

M333C NORTHERN ROCKIES SECTION

TEMP	MOIS		VEGETATION-SITE RULES		
COLD-1	WET-1	PLANT ASSOCIATIONS	ELEVATION (m)	ASPECT	SLOPE

2	2	SAWO/DECE	NOT MAPPED		
2	2	ALIN2			
2	2	ALVIS			
2	2	SABE2			
3	1	SALU2/CARO6	NOT MAPPED		
3	1	SALU2/CACA4			
3	1	SADR			
3	2	SALUL	NOT MAPPED		
3	2	COSE16			
3	2	SAEX			
3	3	PEFL15/FESC	NOT MAPPED		
3	3	PEFL15/DECE			

HERBACEOUS

1	1	CACA4	NOT MAPPED		
1	1	SETR			
1	1	CASI2			
1	1	CASC12			
1	2	ALPINE RANGELAND	2286-2743	ALL	LT60
2	1	ELQU2	NOT MAPPED		
2	1	ELPA3			
2	1	CAR06			
2	1	CABU6			
2	1	CAAQ			
2	1	CALA11			
2	2	DECE-CAREX	NOT MAPPED		
2	2	DECE			
2	3	FEID-ELTR7	NOT MAPPED		
3	1	PHAU7	NOT MAPPED		
3	1	EQFL			
3	1	GLBO			
3	1	CAAP3			
3	2	POPA2	NOT MAPPED		
3	2	JUBA			
3	2	CANE2			
3	3	FEID-DECE	NOT MAPPED		
3	3	FEID-STR12			
3	4	FESC-FEID	NOT MAPPED		
4	1	TYLA	NOT MAPPED		
4	1	SCAC			
4	4	FESC-PSSP6	NOT MAPPED		
4	4	FEID-PSSF'6			
ROCKS			2286-2590	NE,SW	GT60

M333D BITTERROOT MOUNTAINS SECTION

TEMP	MOIS	PLANT ASSOCIATIONS	VEGETATION-SITE RULES		
COLD- 1	WET-1		ELEVATION (m)	ASPECT	SLOPE

FORESTS

1	1	ABwCACA4		NOT MAPPED	
1	1	TSME/STAM2			
1	2	ABLA/LUGLH	1524-2285	ALL	LT60
1	2	TSME/LUGLH			
1	2	TSME/MEFE			
1	2	ABLA/MEFE			
1	2	LALY-ABLA			
1	3	ABLA/VASC	1677-2438	ALL	LT60
1	3	ABLA-PIAL/VASC			
1	4	PIAL		NOT MAPPED	
1	4	PIAL-ABLA			
2	1	ABLA/GATR3	762-1371	NE,FLAT	LT30
2	1	PICEA/GATR3			
2	1	THPL/OPHO			
2	1	ABLA/OPHO			
2	1	THPL/ATFI			
2	2	ABLA/LIBO3	610-1676	ALL	LT60
2	2	THPL/GYDR			
2	2	ABLA/CLUN2			
2	2	TSHE/GYDR			
2	2	ABGR/TABR2			
2	2	TSME/CLUN2			
2	2	ABGR/CLUN2			
2	2	PICEA/CLUN2			
2	3	TSME/XETE	915-1981	ALL	LT60
2	3	ABLA/VACE			
2	3	PSME/LIBO3			
2	3	ABGR/XETE			
2	3	ABLA/XETE			
2	3	TSHE/XETE			
2	3	ABLA/VAGL			
2	4	PSME/VACE		NOT MAPPED	
2	4	PICEA/VACE			
3	1	ABGR/SETR		NOT MAPPED	
3	1	PICEA/COSE16			
3	2	THPL/ADPE	305-1676	ALL	LT60
3	2	TSHE/ASCA2			
3	2	TSHE/CLUN2			
3	2	ABGR/LIBO3			
3	2	ABGR/ASCA2			
3	3	PSME/CARU	458-1676	ALL	LT60
3	3	PSME/PHMA5			
3	3	ABGR/PHMA5			
3	3	ABGR/SPBE2			
3	3	PSME/SPBE2			
3	3	PSME/VAGL			
3	4	PSME/SYAL	305-914	NE,SW	5-59
4	1	POTR15/COSE16		NOT MAPPED	
4	1	PICEA/LYAM3			
4	1	PSME/COSE16			

M333D BITIERROOT MOUNTAINS SECTION

TEMP	MOIS	PLANT ASSOCIATIONS	VEGETATION-SITE RULES	ASPECT	SLOPE
C O L D - 1	W E T - 1		ELEVATION (m)		
4	1	PIPO/COSE16			
4	2	POTR15/CRDO	762-914	SW	5-29
4	4	PIPO/PSSP6	305-1066	SW	5-59
4	4	PIPO/FEID			
4	4	PIPO/SYAL			
4	4	PSME/PSSP6			
4	4	PSME/FEID			

SHRUBLANDS

1	1	SAPL2/CASC12		NOT MAPPED	
1	1	SACA4/CARO6			
1	1	KAMI/CASC12			
1	2	PHEM/ANLA3		NOT MAPPED	
2	1	SAGE2/CAAQ		NOT MAPPED	
2	1	SAGE2/CARO6			
2	1	SAWO/CAAQ			
2	1	SAGE2/CACA4			
2	1	B EGL/CARO6			
2	2	ALIN2		NOT MAPPED	
2	2	ALVIS			
2	2	SABE2			
3	1	SALU2/CARO6		NOT MAPPED	
3	1	SALU2/CACA4			
3	1	SADR			
3	2	SALUL		NOT MAPPED	
3	2	COSE16			
3	2	SAEX			
3	3	PUTR2/FESC	1067-1371	SW	LT30
3	3	ARTR4/FESC			
3	3	PEFL15/DECE			
3	3	ARTR2/FESC			
4	2	CRD02		NOT MAPPED	
4	4	ARTR2/PSSP6		NOT MAPPED	
4	4	ARTR2/FEID			

M333D BITTERROOT MOUNTAINS SECTION

TEMP	MOIS	PLANT ASSOCIATIONS	VEGETATION-SITE RULES		
COLD-1	WET-1		ELEVATION (m)	ASPECT	SLOPE

HERBACEOUS

1	1	CASC12-CALE4	NOT MAPPED
1	1	SETR	
1	1	CASI2	
1	1	CASC12	
1	2	DECE-CALE4	NOT MAPPED
2	1	ELQU2	NOT MAPPED
2	1	ELPA3	
2	1	CACA4	
2	1	CABU6	
2	1	CAAQ	
2	1	CALA11	
2	2	DECE-CAREX	NOT MAPPED
2	2	DECE	
2	3	FESC-DECE	NOT MAPPED
3	1	EQFL	NOT MAPPED
3	1	GLBO	
3	1	CARO6	
3	2	POPA2	NOT MAPPED
3	2	JUBA	
3	2	CANE2	
3	3	FEID-STR12	NOT MAPPED
3	4	FESC-FEID	NOT MAPPED
4	1	TYLA	NOT MAPPED
4	1	PHAU7	
4	1	SCAC	
4	3	FESC-PSSP6	NOT MAPPED
4	3	FEID-PSSP6	
4	4	PSSP6-POSE	NOT MAPPED

APPENDIX 9.

Frequency and relative percentage of main (305 m.) elevation belts by individual section: codes of section PV classes found in each elevation belt, number of section PV classes, number of plant associations by elevation belt, number of pixels intercepted by elevation belt, % representation of elevation belt of the section.

331A PALOUSE PRAIRIE SECTION

ELEVATION BELT (m)	SECTION PV CLASSES	# OF SECTION CLASSES	# OF PLANT ASSOCIATIONS	# OF PIXELS	% OF SECTION
0-304	S34 H33 H43 H44	4	9	339	2.00
305-609	F31 F32 H22 H32 H23 H33 H43 H44	8	21	3575	21.06
610-914	F22 F32 S33 H22 H32 H23 H33 H34 H44	9	20	9121	53.72
915-1219	F31 F22 F32 F13 s33 H22 H32 H23 H33	9	23	3150	18.55
1220-1523	F12 F22 F13 H22 H23	5	13	742	4.37
1524-1828	F12 F22 F13 H22 H23 H33	6	16	52	0.31
TOTAL				16979	100.00

341E

LAHONTAN BASIN SECTION

ELEVATION BELT (m)	SECTION PV CLASSES	# OF SECTION CLASSES	# OF PLANT ASSOCIATIONS	# OF PIXELS	% OF SECTION
915-1219	S42 S43 S44 H43	4	22	6515	19.12
1220-1523	S42 S33 S43 S34 S44	5	33	18841	55.30
1524-1828	S12 S22 S32 S42 S23 S33 S34	7	20	6178	18.13
1829-2133	F44 S12 S22 S32 S23 S33	6	16	1918	5.63
2134-2438	F13 F33 S12	3	5	516	1.51
2439-2743	F12 S12 S22 S13 S23	5	7	98	0.29
2744-3047	S12 S13	2	3	5	0.01
TOTAL				34071	100.00

342B-E NORTHWESTERN BASIN AND RANGE SECTION: EASTERN
PORTION

ELEVATION BELT (m)	SECTION PV CLASSES	# OF SECTION CLASSES	# OF PLANT ASSOCIATIONS	# OF PIXELS	% OF SECTION
1220-1523	F44 S32 S42 S33 S43 S34 S44	7	14	4864	12.26
1524-1828	F34 F44 S32 S33 S43 S34	6	14	15820	39.87
1829-2133	F23 F34 F44 S12 S22 S32 S13 S23 S33	9	26	14805	37.31
2134-2438	F12 F13 F23 F34 S12 S22 S13 S23 S14	9	36	3479	8.77
2439-2743	F12 F23 S12 S22 S13	5	25	595	1.50
2744-3047	F12 S12	2	11	117	0.29
3048-3352	F12	1	10	3	0.01
TOTAL				39683	100.00

342B-W NOR-STERN BASIN AND RANGE SECTION: WESTERN PORTION

ELEVATION BELT (m)	SECTION PV CLASSES	# OF SECTION CLASSES	# OF PLANT ASSOCIATIONS	# OF PIXELS	% OF SECTION
915-1219	F41 S22 S32 S42 S23 S33 S43 S44	8	60	3093	4.18
1220-1523	F23 F33 F34 F44 S41 S22 S32 S42 S13 S23 S33 S43 S24 S34 S44 H31	16	98	37867	51.14
1524-1828	F33 F43 F34 F44 S31 S22 S32 S42 S13 S23 S33 S43 S24 S34 S44	15	94	22923	30.96
1829-2133	F23 F33 F43 F34 F44 S31 S22 S32 S 1 3 S23 S24	11	53	8667	11.71

ELEVATION BELT (m)	SECTION PV CLASSES	# OF SECTION CLASSES	# OF PLANT ASSOCIATIONS	# OF PIXELS	% OF SECTION
2134-2438	F31 F12 F13 F23 F33 F34 S12 S22 S13 S23 H12	11	46	1291	1.74
2439-2743	F12 F13 F23 F33 S12 S13 H12	7	22	189	0.26
2744-3047	F12 H12	2	4	10	0.01
TOTAL				74040	100.00

342C ~~OWYHEE~~ UPLANDS SECTION

ELEVATION BELT (m)	SECTION PV CLASSES	# OF SECTION CLASSES	# OF PLANT ASSOCIATIONS	# OF PIXELS	% OF SECTION
610-914	F31 F41 S23 s33 s43 s44 H43	7	2 7	10913	17.50
915-1219	S23 s33 s43 s34 s44	5	19	11803	18.93
1220-1523	s12 s22 s13 S23 s33 s43	6	2 9	17777	28.51
1524-1828	F43 F34 s12 s22 s13 S23 s33 s43 s44	9	44	19539	31.33
1829-2133	F23 s12 s22 s13 S23 s44	6	33	2192	3.52
2134-2438	F23 S12 s22 s13	4	23	132	0.21
TOTAL				62356	100.00

342D SNAKE RIVER BASALTS SECTION

KLBVATION BELT (m)	SECTION PV CLASSES	# OF SECTION CLASSES	# OF PLANT ASSOCIATIONS	# OF PIXELS	% OF SECTION
610-914	S23 S33	2	7	58	0.17
915-1219	S23 S33	2	7	2895	8.72
1220-1523	S12 S23 S33 S44	4	15	20448	61.60
1524-1828	S12 S22 S33 S44	4	14	8070	24.31
1829-2133	S12 S22 S 3 2 S33	4	14	1668	5.03
2134-2438	S12 S22 S32	3	9	54	0.16
TOTAL				33193	100.00

342H HIGH LAVA PLAINS SECTION

ELEVATION BELT (m)	SECTION PV CLASSES	# OF SECTION CLASSES	# OF PLANT ASSOCIATIONS	# OF PIXELS	% OF SECTION
305-609	F21 s22 s33 s43 H41 H22 H33 H34	8	20	554	4.19
610-914	F34 F44 s22 S32 s33 S43 H41 H22 H33	9	26	3635	27.50
915-1219	F33 F34 F44 S11 s22 S32 s33 s43	8	23	6535	49.44
1220-1523	F21 F23 F33 F43 F34 S11 s22 S32 S42 s33 s43	11	26	2335	17.67
1524-1828	F13 F 4 3 F34	3	5	156	1.18
1829-2133	F13	1	1	2	0.02
TOTAL				13217	100.00

3421 COLUMBIA BASIN SECTION

ELEVATION BELT (m)	SECTION PV CLASSES	# OF SECTION CLASSES	# OF PLANT ASSOCIATIONS	# OF PIXELS	% OF SECTION
0-304	S32 S23 S33 S43 S24 S34 S44 H11 H22 H32 H33 H43 H44	13	29	13099	20.28
305-609	F41 S31 S22 S32 S23 S33 S43 S24 S34 S44 H22 H32 H33	13	26	29981	46.42
610-914	F41 F22 F44 S22 S32 S23 S33 S43 S24 S34 H11 H22 H32 H33 H44	15	35	18457	28.58
915-1219	F22 F44 S22 S32 S23 S33 S24 S34 H11 H22 H32 H33 H44	13	31	2873	4.45

ELEVATION BELT (m)	SECTION PV CLASSES	# OF SECTION CLASSES	# OF PLANT ASSOCIATIONS	# OF PIXELS	% OF SECTION
1220-1523	F22 F23 F44 S22 S44 H11	6	20	170	0.26
1524-1828	F22	1	3	1	0.00
TOTAL				64581	100.00

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M242C EASTERN CASCADES SECTION

KLKVATION BELT (m)	SECTION PV CLASSES	# OF SECTION CLASSES	# OF PLANT ASSOCIATIONS	# OF PIXELS	% OF SKCTION
0-304	F32 F42 F43 s33 s43 S24	6	32	568	1.27
305-609	F21 F32 F42 F33 F43 F34 F44 s33 s43 S24	10	60	2109	4.70
610-914	F21 F22 F32 F42 F33 F 4 3 F24 F34 F44 S23 s33 s43 S24 S34	14	95	5337	11.90
915-1219	F21 F22 F32 F42 F23 F33 F43 F24 F34 s33	10	102	7631	17.01

ELBATION BELT (m)	SECTION PV CLASSES	# OF SECTION CLASSES		# OF PLANT ASSOCIATIONS	# OF PIXELS	% OF SECTION
1220-1523	F21 F31 F12 F22 F32 F42 F13 F23 F33 F43 F14 F24 F34 F44 S33 S44 H11 H41 H23	1	9	133	12627	28.14
1524-1828	F31 F12 F22 F32 F42 F13 F23 F33 F14 F24 F34 F44 S33 H11 H21	15		114	11066	24.66
1829-2133	F11 F31 F12 F22 F32 F13 F23 F33 F14 F24 S12 S13 S14 H11 H13	15		100	4566	10.18

ELEVATION BELT (m)	SECTION PV CLASSES	# OF SECTION CLASSES	# OF PLANT ASSOCIATIONS	# OF PIXELS	% OF SECTION
2134-2438	F31 F13 F14 S12 S14 H11 H13 H14 ROCKS	9	28	933	2.08
2439-2743	F13 S14 H11 ROCKS		13	26	0.06
2744-3047	ROCKS		N/A	3	0.01
T O T A L				44866	100.00

M261D SOUTHERN CASCADES SECTION

ELEVATION BELT (m)	SECTION PV CLASSES	# OF SECTION CLASSES	# OF PLANT ASSOCIATIONS	# OF PIXELS	% OF SECTION
305-609	F42 F43 F44 s43	4	1 7	662	3.27
610-914	F31 F32 F42 F43 s31 s43 s34 H44	8	2 7	2440	12.04
915-1219	F31 F22 F32 F42 F23 F33 F43 F44 s43	9	4 0	3920	19.34
1220-1523	F21 F31 F22 F32 F42 F23 F33 F43 F44	9	3 8	6293	31.05
1524-1828	F21 F12 F22 F32 F13 F23 F33	7	31	4226	20.85
1829-2133	F21 F12 F22 F32 F13 F23 F33	7	31	2212	10.91

ELEVATION BELT (m)	SECTION PV CLASSES	# OF SECTION CLASSES	# OF PLANT ASSOCIATIONS	# OF PIXELS	% OF SECTION
2134-2438	F12 F22 F13 F23 F14	5	20	413	2.04
2439-2743	F12 F14 ROCKS		8	56	0.28
2744-3047	ROCKS		N/A	19	0 . 0 9
3048-3352	ROCKS		N/A	13	0.06
3353-3657	ROCKS		N/A	9	0 . 0 4
3658-3962	ROCKS		N/A	4	0.02
3963-4267	ROCKS		N/A	1	0.00
TOTAL				20268	100.00

M261G MODOC PLATEAU SECTION

ELEVATION BELT (m)	SECTION PV CLASSES	# OF SECTION CLASSES	# OF PLANT ASSOCIATIONS	# OF PIXELS	% OF SECTION
915-1219	F43 F44 S41 H41	4	14	476	1.74
1220-1523	F32 F33 F43 F44 S22 S42 S33 S34 S44 H41 H43	11	38	12903	47.08
1524-1828	F32 F23 F33 F43 F44 S22 S42 S33	8	31	10357	37.79
1829-2133	F21 F22 F32 F23 F33 S22	6	21	3086	11.26
2134-2438	F21 F12 F22 F13 F23 S12 S14	7	20	511	1.86
2439-2743	F11 S14 H11	3	8	69	0.25
2744-3047	F14	1	3	4	0.01
TOTAL				27406	100.00

M331A YELLOWSTONE HIGHLANDS SECTION

ELEVATION BELT (m)	SECTION PV CLASSES	# OF SECTION CLASSES	# OF PLANT ASSOCIATIONS	# OF PIXELS	% OF SECTION
1220-1523	F33 s33 S44 H33 H44	5	11	408	1.15
1524-1828	F22 F13 F33 F43 F34 F44 S32 S23 s33 s44 H33 H43 H44	13	39	2849	8.04
1829-2133	F22 F13 F23 F33 F43 F24 F34 F44 S23 s33 H33 ROCKS	12	41	5927	16.72
2134-2438	F31 F22 F 1 3 F23 F33 F43 F14 F24 F34 F44 S23 s33 S24 H33 ROCKS	15	49	8669	24.46

ELEVATION BELT (m)	SECTION PV CLASSES	# OF SECTION CLASSES	# OF PLANT ASSOCIATIONS	# OF PIXELS	% OF SECTION
2439-2743	F13 F23 F43 F14 F24 F34 S24 ROCKS	8	27	9104	25.69
2744-3047	F13 F23 F14 F24 H12 H13 H23 ROCKS	8	21	5455	15.39
3048-3352	F13 F14 H12 H13 ROCKS	5	11	2458	6.94
3353-3657	H13 ROCKS	2	1	568	1.60
3658-3962	H13	1	1	4	0.01
TOTAL				35442	100.00

M331D OVERTHRUST MOUNTAINS SECTION

ELEVATION BELT (m)	SECTION PV CLASSES	# OF SECTION CLASSES	# OF PLANT ASSOCIATIONS	# OF PIXELS	% OF SECTION
1220-1523	S33 S43	2	1 0	1886	6.02
1524-1828	F31 F22 F42 F34 F44 S21 S31 S13 S33 S24 S34	11	68	3462	11.05
1829-2133	F21 F22 F32 F42 F23 F33 F43 F34 F44 S21 S31 S13 S23 S33 S24 S34 H12	17	104	8410	26.83
2134-2438	F21 F22 F32 F42 F23 F33 F43 F14 F34 F44 S21 S31 S22 S13 S23 S33 S24 S34	18	106	7442	23.74

ELEVATION BELT (m)	SECTION PV CLASSES	# OF SECTION CLASSES	# OF PLANT ASSOCIATIONS	# OF PIXELS	% OF SECTION
2439-2743	F21 F12 F 2 2 F32 F23 F33 F14 F34 S11 s21 s13 S23 S24 H23	14	80	6471	20.65
2744-3047	F12 F22 F32 F13 F23 F14 F34 S13 S23	9	58	3133	10.00
3048-3352	F32 F13 F23 F14	4	25	505	1.61
3353-3657	F13	1	5	34	0.11
3658-3962	F13	1	5	1	0.00
TOTAL				31344	100.00

M331J WIND RIVER SECTION

ELEVATION BELT (m)	SECTION PV CLASSES	# OF SECTION CLASSES	# OF PLANT ASSOCIATIONS	# OF PIXELS	% OF 'SECTION
1524-1828	s44	1	3'	74	1.21
1829-2133	s44	1	3	298	4.88
2134-2438	F32 F23 F44 s21 S23 S33 H33	7	17	601	9.84
2439-2743	F22 F13 F23 F33 F44 S23 s33 H33 ROCKS		23	1203	19.70
2744-3047	F12 F22 F13 F23 F14 S23 ROCKS	7	15	1570	25.70
3048-3352	F12 F22 F13 F14 s22 H13 ROCKS	7	14	1471	24.08
3353-3657	F22 F13 H13 ROCKS	4	8	758	12.41
3658-3962	H13 ROCKS	2	1	133	2.18
TOTAL				6108	100.00

M333A OKANOGAN HIGHLANDS SECTION

ELEVATION BELT (m)	SECTION PV CLASSES	# OF SECTION CLASSES	# OF PLANT ASSOCIATIONS	# OF PIXELS	% OF SECTION
O-304	F44 S33 s43 s44	4	14	352	1.06
305-609	F31 F41 F33 F43 F34 F44 s33 s43 H23 H33	10 4 3	33	4715	14.18
610-914	F41 F22 F32 F23 F33 F43 F34 F44 s33 s43 H33	11	51	15338	46.12
915-1219	F22 F32 F23 F33 F24 F34 F44 s33 s43 H33	10	45	8051	24.21
1220-1523	F22 F32 F13 F23 F33 F24 F33 S43	8 4	42	3640	10.95

ELEVATION. BELT (m)	SECTION PV CLASSES	# OF SECTION CLASSES	# OF PLANT ASSOCIATIONS	# OF PIXELS	% OF SECTION
1524-1828	F12 F22 F13 F23 F24 F34	6	31	1046	3.15
1829-2133	F12 F22 F13 F23 F14 H12	6	30	113	0.34
TOTAL				33255	100.00

M333B FLATHEAD VALLEY SECTION

ELEVATION BELT (m)	SECTION PV CLASSES	# OF SECTION CLASSES	# OF PLANT ASSOCIATIONS	# OF PIXELS	% OF SECTION
0-304	F33	1	6 '	1	0.00
305-609	F22 F32 F33	3	18	276	1.12
610-914	F22 F32 F33 F34 F44 H44	6	25	4628	18.83
915-1219	F22 F32 F33 F34 F44 H44	6	25	8240	33.53
1220-1523	F12 F22 F32 F23 F33 F44	6	34	6935	28.22
1524-1828	F12 F22 F13 F23	4	21	3800	15.46
1829-2133	F12 F13 F23 F14	4 '	15	677	2.75
2134-2438	F12 F23 F14	3	12	15	0.06
TOTAL				24575	100.00

M333C NORTHERN ROCKIES SECTION

ELEVATION BELT (m)	SECTION PV CLASSES	# OF SECTION CLASSES	# OF PLANT ASSOCIATIONS	# OF PIXELS	% OF SECTION
610-914	F22 F24	2	7	16	0.12
915-1219	F22 F32 F33 F24	4	15	1733	13.39
1220-1523	F12 F22 F32 F23 F33	5	19	3073	23.74
1524-1828	F12 F22 F23 F33	4	15	3717	28.72
1829-2133	F12 F13 F23 F14	4	11	3345	25.84
2134-2438	F12 F13 F14 H12 ROCKS	5	7	984	7.60
2439-2743	F12 H12 ROCKS	3	2	75	0.58
TOTAL				12944	100.00

M333D BITTERROOT MOUNTAINS SECTION

ELEVATION BELT (m)	SECTION PV CLASSES	# OF SECTION CLASSES	# OF PLANT ASSOCIATIONS	# OF PIXELS	% OF SECTION
305-609	F32 F33 F34 F44	4	1 7	120	0.43
610-914	F21 F22 F32 F42 F33 F34 F44	7	31	4567	16.41
915-1219	F21 F22 F32 F23 F33 F44	6	36	8897	31.97
1220-1523	F21 F22 F32 F23 F33	5	3 1	8019	28.81
1524-1828	F12 F22 F32 F13 F23 F33	6	33	4935	17.73
1829-2133	F12 F13 F23	3	14	1252	4.50
2134-2438	F12 F13	2	7	40	0.14
TOTAL				27830	100.00

M332A

IDAHO BATHOLITH SECTION

ELEVATION BELT (m)	SECTION PV CLASSES	# OF SECTION CLASSES	# OF PLANT ASSOCIATIONS	# OF PIXELS	% OF SECTION
305-609	F31 F32 F23 F44 S44	5	21	55	0.12
610-914	F31 F22 F32 F23 F34 F44 S23 S44	8	36	1689	3.60
915-1219	F31 F22 F32 F23 F24 F34 F44 S23 S44 H21	10	42	5302	11.30
1220-1523	F11 F22 F13 F23 F33 F14 F24 F34 F44 S23 S44 H21 H31	13	67	8663	18.47
1524-1828	F11 F13 F23 F33 F14 F24 F34 F44 S23 S44 H21	11	60	10525	22.44

ELEVATION BELT (m)	SECTION PV CLASSES	# OF SECTION CLASSES	# OF PLANT ASSOCIATIONS	# OF PIXELS	% OF SECTION
1829-2133	F12 F13 F23 F33 F14 F24 F34 F44 S23	9	51	10731	22.88
2134-2438	F12 F13 F23 F33 F14 F34 S23 H13 ROCKS	9	45	7460	15.90
2439-2743	F12 F13 F23 F14 F34 S23 H13 ROCKS	8	39	2209	4.71
2744-3047	F12 F12 F13 F14 S23 H13 ROCKS	6	23	271	0.58
TOTAL				46905	100.00

M332B BITTERROOT VALLEY SECTION

ELEVATION BELT (m)	SECTION PV CLASSES	# OF SECTION CLASSES	# OF PLANT ASSOCIATIONS	# OF PIXELS	% OF SECTION
915-1219	F41 F12 F32 F33 F34 F44 s44 H44	8	2 3	1855	8.93
1220-1523	F41 F12 F22 F32 F33 F43 F34 F44 s21 s33 H33 H44	12	3 6	4333	20.86
1524-1828	F31 F12 F22 F32 F23 F33 F43 F34 F44 s33 H44	11	33	5724	27.56
1829-2133	F31 F12 F22 F13 F23 F33 F34 ROCKS	8	22	5362	25.82
2134-2438	F12 F13 F23 ROCKS	4	10	2893	13.93
2439-2743	F13 F14 ROCKS	3	6	562	2.71
2744-3047	ROCKS	1	N/A	39	0.19
3048-3352	ROCKS	1	N/A	1	0.00
TOTAL				20769	100.00

M332C ROCKY MOUNTAIN FRONT SECTION

ELEVATION BELT (m)	SECTION PV CLASSES	# OF SECTION CLASSES	# OF PLANT ASSOCIATIONS	# OF PIXELS	% OF SECTION
1220-1523	F32 F44 H33	3	8	462	7.98
1524-1828	F21 F31 F22 F32 F23 F33 F44 H33 ROCKS	9	29	2054	35.47
1829-2133	F21 F31 F12 F22 F13 F23 F24 F34 F44 ROCKS	10	34	2078	35.88
2134-2438	F11 F12 F13 F23 F14 ROCKS	6	19	1131	19.53
2439-2743	F13 S12 S13 ROCKS	4	6	65	1.12
2744-3047	S12	1	2	1	0.02
TOTAL				5791	100.00

M332D BELT MOUNTAINS SECTION

ELEVATION BELT (m)	SECTION PV CLASSES	# OF SECTION CLASSES	# OF PLANT ASSOCIATIONS	# OF PIXELS	% OF SECTION
915-1219	F33 S33 H42 H33 H43 H44	6	17	2703	7.22
1220-1523	F31 F33 F43 F34 F44 S23 S33 S44 H33 H43 H44	11	36	12443	33.24
1524-1828	F31 F22 F32 F23 F33 F43 F24 F34 F44 S22 S23 S33 S24 S44 H33 H43 H44	17	60	12976	34.67
1829-2133	F22 F22 F32 F13 F23 F33 F24 F34 F44 S22 S33 H32 H33	12	49	6372	17.02

ELEVATION BELT (m)	SECTION PV CLASSES	# OF SECTION CLASSES	# OF PLANT ASSOCIATIONS	# OF PIXELS	% OF SECTION
2134-2438	F22 F22 F32 F13 F23 F33 F43 F24 F44 H33 ROCKS	10	37	2464	6.58
2439-2743	F13 F23 F14 S13 H12 H23 ROCKS	7	18	377	1.01
2744-3047	F13 S13 H22 H23	4	7	93	0.25
3048-3352	S13	1	1	2	0.01
TOTAL				37430	100.00

M332E BEAVERHEAD MOUNTAINS SECTION

ELEVATION BELT (m)	SECTION PV CLASSES	# OF SECTION CLASSES	# OF PLANT ASSOCIATIONS	# OF PIXELS	% OF SECTION
915-1219	S22 S23 S44	3	1 4	49	0.11
1220-1523	F31 F32 F33 F34 F44 S22 S23 S44 H33	9	41	1901	4.40
1524-1828	F33 F24 F34 F44 S31 S 2 2 S23 S33 S34 S44	10	50	8005	18.53
1829-2133	F13 F23 F33 F24 F34 F44 S31 S22 S23 S33 S34 S44	12	60	13984	32.37
2134-2438	F22 F13 F 2 3 F33 F24 F34 F44 S21 S31 S22 S23 S33 S34 S44 H33	15	75	11342	26.25

ELEVATION BELT (m)	SECTION PV CLASSES	# OF SECTION CLASSES	# OF PLANT ASSOCIATIONS	# OF PIXELS	% OF SECTION
2439-2743	F12 F22 F13 F23 F33 F14 F24 F34 F44 S11 S21 S22 S23 S33 S34 H22 H23 ROCKS	18	75	5840	13.52
2744-3047	F13 F23 F14 F24 S22 S33 H11 H12 H13 H23 H14 H24 ROCKS	13	40	1841	4.26
3048-3352	F13 F14 S22 H12 H13 H24 ROCKS	7	22	223	0.52
3353-3657	ROCKS	1	N/A	17	0.04
TOTAL				43202	100.00

ELEVATION BELT (m)	SECTION PV CLASSES	# OF SECTION CLASSES	# OF PLANT ASSOCIATIONS	# OF PIXELS	% OF SECTION
2744-3047	F13 F23 F14 F34 S22 S23 H13 H14	8	22	1052	7.33
3048-3352	H13 H14	2	6	213	1.48
3353-3657	H13 H14	2	6	6	0.04
TOTAL				14361	100.00

M332G BLUE MOUNTAINS SECTION

ELEVATION BELT (m)	SECTION PV CLASSES	# OF SECTION CLASSES	# OF PLANT ASSOCIATIONS	# OF PIXELS	% OF SECTION
0-304	H34 H44	2	9	16	0.03
305-609	S33 H33 H34 H44	4	19	670	1.28
610-914	F31 F43 F34 F44 S32 S33 S43 S44 H23 H33 H43 H34 H44	13	90	3692	7.06
915-1219	F23 F33 F43 F34 F44 S21 S32 S33 S43 S44 H42 H23 H33 H43 H34 H44	16	106	11935	22.82
1220-1523	F22 F32 F23 F33 F43 F24 F34 F44 S21 S32 S33 S43 S44 H42 H23 H33 H34 H44	18	111	20361	38.93

ELEVATION BELT (m)	SECTION PV CLASSES	# OF SECTION CLASSES	# OF PLANT ASSOCIATIONS	# OF PIXELS	% OF SECTION
1524-1828	F22 F32 F13 F23 F33 F43 F14 F24 F34 S32 S33 S43 S44 H22 H23 H33 H43 H44	18	115	12134	23.20
1829-2133	F22 F23 F14 F24 F34 F44 S33 S43 S44 H22 H23	11	84	2306	4.41
2134-2438	F22 F32 F23 F14 F24 S43 H23	7	41	990	1.89
2439-2743	F23 F14 F24 S43 H13 H23	6	41	195	0.37
2744-3047	H13	1	2	7	0.01
TOTAL				52306	100.00

M332F CHALLIS VOLCANICS SECTION

ELEVATION BELT (m)	SECTION PV CLASSES	# OF SECTION CLASSES	# OF PLANT ASSOCIATIONS	# OF PIXELS	% OF SECTION
915-1219	F34	1	2	2	0.01
1220-1523	F34 S23 s33 s44	4	13	239	1.66
1524-1828	F33 F34 F44 s12 s22 S23 s33 s44 H22	9	26	1666	11.60
1829-2133	F13 F23 F33 F14 F 3 4 F44 s22 S23 s44	9	30	3547	24.70
2134-2438	F31 F13 F23 F33 F14 F34 F44 s22 S23 H13	10	29	4501	31.34
2439-2743	F31 F13 F23 F33 F14 F34 s22	7	17	3135	21.83

M332D**BELT MOUNTAINS SECTION**

PV CLASS CODES	# OF PLANT ASSOCIATIONS	# OF PIXELS	% OF SECTION
F31	4	168	0.45
F22	4	1592	4.25
F32	3	366	0.98
F13	3	1802	4.81
F23	7	1581	4.22
F33	3	6402	17.10
F43	2	1200	3.21
F14	3	119	0.32
F24	5	1243	3.32
F34	3	704	1.88
F44	7	1760	4.70
s22	4	28	0.07
s13	1	23	0.06
S23	2	109	0.29
s33	4	2657	7.10
S24	1	1117	2.98
s44	4	431	1.15
H12	3	1	0.00
H22	2	43	0.11
H32	2	23	0.06
H42	3	6	0.02
H23	1	80	0.21
H33	3	8317	22.22
H43	1	3218	8.60
H44	3	4437	11.85
ROCKS	N/A	3	0.01
TOTAL	78	37430	100.00

M332E

BEAVERHEAD MOUNTAINS SECTION

PV CLASS CODES	# OF PLANT ASSOCIATIONS	# OF PIXELS	% OF SECTION
F31	1	413	0.96
F12	3	26	0.06
F22	5	67	0.16
F32	5	91	0.21
F13	4	5937	13.74
F23	6	2732	6.32
F33	7	3458	8.00
F14	5	792	1.83
F24	3	1415	3.28
F34	8	397	0.92
F44	4	996	2.31
S11	6	15	0.03
S21	8	135	0.31
S31	7	1327	3.07
S22	3	16019	37.08
S23	3	2708	6.27
S33	4	737	1.71
S34	3	1768	4.09
S44	8	3273	7.58
H11	2	2	0.00
H12	3	219	0.51
H22	1	2	0.00
H13	3	157	0.36
H23	1	50	0.12
H33	2	46	0.11
H14	2	10	0.02
H24	4	16	0.04
ROCKS	N/A	394	0.91
TOTAL	111	43202	100.00

M332F

CHALLIS VOLCANICS SECTION

PV CLASS CODES	# OF PLANT ASSOCIATIONS	# OF PIXELS	% OF SECTION
F31	1	2	0.01
F13	2	3870	26.95
F23	3	1540	10.72
F33	3	520	3.62
F14	2	417	2.90
F34	2	163.2	11.36
F44	4	358	2.49
s12	1	5	0.03
s22	4	2249	15.66.
S23	3	1876	13.06
s33	1	16	0.11
s44	7	1436	10.00
H22	1	4	0.03
H13	5	343	2.39
H14	1	93	0.65
TOTAL	40	14361	100.00

M332G

BLUE MOUNTAINS SECTION

PV CLASS C O D E S	# OF PLANT ASSOCIATIONS	# OF PIXELS	% OF SECTION
F31	1	17	0.03
F22	1	234	0.45
F32	1	360	0.69
F13	1	1	0.00
F23	10	3076	5.88
F33	5	2395	4.58
F43	9	3942	7.54
F14	7	1405	2.69
F24	6	2963	5.66
F34	17	10657	35.67
F44	5	150	0.29
S21	1	404	0.77
S32	4	2010	3.04
s33	5	1199	2.29
s43	13	7374	14.10
s44	16	1179	2.25
H22	1	44	0.08
H42	1	203	0.39
H13	2	32	0.06
H23	3	1493	2.85
H33	5	2068	3.95
H43	3	42	0.08
H34	1	646	1.24
H44	8	2412	4.61
TOTAL	126	52306	100.00

M333A

OKANOGAN HIGHLANDS SECTION

PV CLASS CODES	# OF PLANT ASSOCIATIONS	# OF PIXELS	% OF SECTION
F31	4	21	0.06
F41	3	839	2.52
F12	5	244	0.73
F22	10	5846	17.58
F32	8	4162	12.52
F13	6	171	0.51
F23	5	1532	4.61
F33	4	8816	26.51
F43	6	2185	6.57
F14	3	1	0.00
F24	3	420	1.26
F34	2	2062	6.20
F44	5	487	1.46
s33	3	2342	7.04
s43	4	3940	11.85
s44	2	44	0.13
H12	1	1	0.00
H23	1	23	0.07
H33	1	119	0.36
TOTAL	76	33255	100.00

M333B

FLATHEAD VALLEY SECTION

PV CLASS CODES	# OF PLANT ASSOCIATIONS	# OF PIXELS	% OF SECTION
F12	5	2043	8.31
F22	7	4010	16.32
F32	5	7063	28.74
F13	3	304	1.24
F23	6	1456	5.92
F33	6	3848	15.66
F14	1	29	0.12
F34	1	1154	4.70
F44	5	1141	4.64
H44	1	3527	14.35
TOTAL	40	24575	100.00

M333C

NORTHERN ROCKIES SECTION

PV CLASS CODES	# OF PLANT ASSOCIATIONS	# OF PIXELS	% OF SECTION
F12	1	2718	21.00
F22	3	1429	11.04
F32	4	626	4.84
F13	2	1609	12.43
F23	5	3611	27.90
F33	4	612	4.73
F14	3	928	7.17
F24	2	1084	8.37
H12	1	323	2.50
ROCKS	N/A	4	0.03
TOTAL	25	12944	100.00

M333D

BITTERROOT MOUNTAINS SECTION

PV CLASS CODES	# OF PLANT ASSOCIATIONS	# OF PIXELS	% OF SECTION
F21	5	878	3.15
F12	5	1917	6.89
F22	8	3143	11.29
F32	5	9548	34.31
F42	1	515	1.85
F13	2	266	0.96
F23	7	4008	14.40
F33	6	6981	25.08
F34	1	360	1.29
F44	5	214	0.77
TOTAL	45	27830	100.00

APPENDIX 10.

Frequency and relative percentage of PV vegetation classes by individual section: number of plant associations per class, number of pixels intercepted by each class, % representation of the section.

331A PALOUSE PRAIRIE SECTION

PV CLASS CODES	# OF PLANT ASSOCIATIONS	# OF PIXELS	% OF SECTION
F31	5	6	0.04
F12	3	40	0.24
F22	3	425	2.50
F32	2	394	2.32
F13	1	193	1.14
s33	2	44	0.26
s34	2	59	0.35
H22	2	623	3.67
H32	1	1782	10.50
H23	4	9795	57.69
H33	3	2994	17.63
H43	2	61	0.36
H34	1	2	0.01
H44	2	561	3.30
TOTAL	34	16979	100.00

341E LAHONTAN BASIN SECTION

PV CLASS CODES	# OF PLANT ASSOCIATIONS	# OF PIXELS	% OF SECTION
F12	1	7	0.02
F13	1	27	0.08
F33	3	274	0.80
F44	4	18	0.05
s12	1	226	0.66
s22	2	3-54	1.04
S32	1	138	0.41
S42	1	20316	59.63
s13	2	38	0.11
S23	1	3321	9.75
s33	7	2407	7.06
s43	7	482	1.41
s34	7	3713	10.90
s44	11	2214	6.50
H43	3	536	1.57
TOTAL	52	34071	100.00

342B-E

NORTHWESTERN BASIN AND RANGE SECTION: EASTERN
PORTION

PV CLASS CODES	# OF PLANT ASSOCIATIONS	# OF PIXELS	% OF SECTION
F12	10	262	0.66
F13	3	2	0.01
F23	8	743	1.87
F34	5	960	2.42
F44	2	2353	5.93
S12	1	752	1.90
S22	3	396	1.00
S32	1	8275	20.85
S42	2	377	0.95
S13	3	535	1.35
S23	2	4440	11.19
S33	1	16944	42.70
S43	4	165	0.42
S14	1	4	0.01
S34	1	1036	2.61
S44	3	2439	6.15
TOTAL	50	39683	100.00

342B-W

NORTHWESTERN BASIN AND RANGE SECTION: WESTERN
PORTION

PV CLASS CODES	# OF PLANT ASSOCIATIONS	# OF P I X E L S	% OF SECTION
F31	2	29	0.04
F41	2	38	0.05
F12	1	31	0.04
F13	1	20	0.03
F23	4	201	0.27
F33	4	835	1.13
F43	1	8	0.01
F34	4	242	0.33
F44	5	110	0.15
s31	4	96	0.13
s41	2	2411	3.26
s12	3	114	0.15
s22	9	1685	2.28
s32	4	3847	5.20
s42	3	9331	12.60
s13	6	676	0.91
s23	9	45414	61.34
s33	10	274	0.37
s43	10	5766	7.79
S 2 4	3	744	1.00
s34	9	944	1.27
s44	13	859	1.16
H31	3	332	0.45
H12	3	33	0.04
TOTAL	115	74040	100.00

342C OWYHEE UPLANDS SECTION

PV CLASS CODES	# OF PLANT ASSOCIATIONS	# OF PIXELS	% OF SECTION
F31	1	2	0.00
F41	7	8	0.01
F23	8	513	0.82
F43	3	2667	4.28
F34	8	2	0.00
s12	6	3125	5.01
s22	4	2634	4.22
s13	5	14858	23.83
S 2 3	6	18539	29.73
S33	4	12238	19.63
s43	4	2306	3.70
s34	1	602	0.97
s44	4	4 8 6 0	7.79
H43	1	2	0.00
TOTAL	62	62356	100.00

342D SNAKE RIVER BASALTS SECTION

PV CLASS CODES	# OF PLANT ASSOCIATIONS	# OF PIXELS	% OF SECTION
s12	3	1365	4.11
s22	1	13	0.04
S32	5	359	1.08
S23	2	21	0.06
s33	5	29467	88.77
s44	5	1968	5.93
TOTAL	21	33193	100.00

342H HIGH LAVA PLAINS SECTION

PV CLASS CODES	# OF PLANT ASSOCIATIONS	# OF PIXELS	% OF SECTION
F21	4	62	0.47
F13	1	149	1.13
F23	1	257	1.94
F33	1	6	0.05
F43	1	16	0.12
F34	3	3597	27.21
F44	4	291	2.20
S11	2	1195	9.04
s22	2	1948	14.74
S32	5	2328	17.61
S42	1	1	0.01
s33	3	2612	19.76
s43	3	458	3.47
H41	2	96	0.73
H22	1	20	0.15
H33	3	175	1.32
H34	2	6	0.05
TOTAL	39	13217	100.00

3421 COLUMBIA BASIN SECTION

PV CLASS CODES	# OF PLANT ASSOCIATIONS	# OF PIXELS	% OF SECTION
F41	1	1644	2.55
F22	3	276	0.43
F23	1	2	0.00
F44	5	854	1.32
s31	1	384	0.59
s22	3	8923	13.82
S32	1	11641	18.03
S23	2	245	0.38
s33	3	14294	22.13
s43	3	1204	1.86
S24	2	1201	1.86
s34	2	7746	11.99
s44	5	701	1.09
H11	3	1009	1.56
H22	1	4359	6.75
H32	1	8033	12.44
H33	1	1250	1.94
H43	1	17	0.03
H44	4	798	1.24
TOTAL	43	64581	100.00

M242C**EASTERN CASCADES SECTION**

PV CLASS CODES	# OF PLANT ASSOCIATIONS	# OF PIXELS	% OF SECTION
F11	2	34	0.08
F21	7	1300	2.90
F31	3	560	1.25
F12	3	2631	5.86
F22	14	1583	3.53
F32	11	6733	15.01
F42	7	2444	5.45
F13	9	2478	5.52
F23	14	4603	10.26
F33	11	7133	15.90
F43	8	285	0.64
F14	5	1931	4.30
F24	18	7907	17.62
F34	9	2789	6.22
F44	1	504	1.12
s12	2	69	0.15
s13	1	1	0.00
S23	2	1	0.00
s33	3	365	0.81
s43	2	659	1.47
s14	2	169	0.38
S24	1	23	0.05
s34	1	92	0.21
S44	4	267	0.60
H11	2	29	0.06
H21	4	110	0.25
H41	2	108	0.24
H13	3	8	0.02
H23	2	8	0.02
H 1 4	2	6	0.01
ROCKS	N/A	36	0.08
TOTAL	155	44866	100.00

M261D

SOUTHERN CASCADES SECTION

PV CLASS CODES	# OF PLANT ASSOCIATIONS	# OF PIXELS	% OF SECTION
F21	2	398	1.96
F31	2	444	2.19
F12	6	160	0.79
F22	5	1592	7.85
F32	8	4775	23.56
F42	5	842	4.15
F13	2	1014	5.00
F23	5	1858	9.17
F33	3	2225	10.98
F43	4	3087	15.23
F14	2	41	0.20
F44	4	2809	13.86
S31	1	35	0.17
S43	4	245	1.21
S34	2	680	3.36
H44	1	6	0.03
ROCKS	N/A	57	0.28
TOTAL	56	20268	100.00

M261G**MODOC PLATEAU SECTION****PV CLASS
CODES****# OF PLANT
ASSOCIATIONS****# OF
PIXELS****% OF
SECTION**

F11	3	4	0.01
F21	1	166	0.61
F12	4	10	0.04
F22	4	2313	8.44
F32	4	626	2.28
F13	5	149	0.54
F23	2	2499	9.12
F33	7	4368	15.94
F43	6	3784	13.81
F14	3	4	0.01
F44	4	7163	26.14
s41	1	319	1.16
s12	2	1	0.00
S22	3	5	0.02
S42	3	1765	6.44
s33	2	1603	5.85
s14	2	75	0.27
s34	4	180	0.66
s44	1	114	0.42
H11	2	6	0.02
H41	3	2251	8.21
H43	1	1	0.00
TOTAL	67	27406	100.00

M331A	YELLOWSTONE	HIGHLANDS	SECTION
PV CLASS CODES	# OF PLANT ASSOCIATIONS	# OF PIXELS	% OF SECTION
F31	2	1213	3.42
F22	5	779	2.20
F13	3	10289	29.03
F23	4	2322	6.55
F33	2	2983	8.42
F43	4	456	1.29
F14	6	2696	7.61
F24	4	2984	8.42
F34	4	3121	8.81
F44	5	255	0.72
S32	1	1	0.00
S23	3	1455	4.11
S33	4	1192	3.36
S24	2	240	0.68
S44	1	68	0.19
H12	1	1062	3.00
H13	1	2310	6.52
H23	2	1	0.00
H33	1	844	2.38
H43	1	5	0.01
H44	3	490	1.38
ROCKS	N/A	676	1.91
TOTAL	59	35442	100.00

M331D

OVERTHRUST MOUNTAINS SECTION

PV CLASS CODES	# OF PLANT ASSOCIATIONS	# OF PIXELS	% OF SECTION
F21	3	121	0.39
F31	1	15	0.05
F12	4	473	1.51
F22	15	1286	4.10
F32	8	1169	3.73
F42	2	868	2.77
F13	5	776	2.48
F23	9	6218	19.84
F33	7	2796	8.92
F43	3	87	0.28
F14	3	975	3.11
F34	9	2346	7.48
F44	6	865	2.76
S11	6	51	0.16
S21	8	415	1.32
S31	13	295	0.94
S22	3	19	0.06
S13	2	1580	5.04
S23	3	2451	7.82
S33	8	5874	18.74
S43	2	131	0.42
S24	2	1504	4.80
S34	2	618	1.97
H12	4	410	1.31
H23	1	1	0.00
TOTAL	129	31344	100.00

M331J**WIND RIVER SECTION**

PV CLASS CODES	# OF PLANT ASSOCIATIONS	# OF PIXELS	% OF SECTION
F12	2	725	11.87
F22	4	584	9.56
F32	1	3	0.05
F13	3	766	12.54
F23	2	438	7.17
F33	4	397	6.50
F14	3	451	7.38
F44	5	83	1.36
s21	5	17	0.28
s22	1	1	0.02
S23	1	124	2.03
s33	2	195	3.19
s44	3	372	6.09
H13	1	1196	19.58
H33	1	586	9.59
ROCKS	N/A	170	2.78
TOTAL	38	6108	100.00

M332A**IDAHO BATHOLITH SECTION**

PV CLASS CODES	# OF PLANT ASSOCIATIONS	# OF PIXELS	% OF SECTION
F11	3	10	0.02
F31	1	38	0.08
F12	3	1200	2.56
F22	4	1757	3.75
F32	1	358	0.76
F13	8	9461	20.17
F23	7	3460	7.38
F33	6	1612	3.44
F14	7	5708	12.17
F24	3	2150	4.58
F34	9	9045	19.28
F44	6	2781	5.93
s23	2	2348	5.01
s44	6	6765	14.42
H21	3	24	0.05
H31	3	4	0.01
H13	3	177	0.38
ROCKS	N/A	7	0.01
TOTAL	75	46905	100.00

M332B**BITTERROOT VALLEY SECTION**

PV CLASS CODES	# OF PLANT ASSOCIATIONS	# OF PIXELS	% OF SECTION
F31	2	716	3.45
F41	3	520	2.50
F12	1	3697	17.80
F22	5	1006	4.84
F32	3	331	1.59
F13	4	2332	11.23
F23	5	1638	7.89
F33	3	3527	16.98
F43	1	14	0.07
F14	2	62	0.30
F34	2	1787	8.60
F44	5	1558	7.50
s21	5	75	0.36
s33	3	621	2.99
s 4 4	3	10	0.05
H33	2	11	0.05
H44	3	1914	9.22
ROCKS	N/A	950	4.57
TOTAL	52	20769	~100.00

M332C**ROCKY MOUNTAIN FRONT SECTION**

PV CLASS CODES	# OF PLANT ASSOCIATIONS	# OF PIXELS	% OF SECTION
F11	3	9	0.16
F21	4	153	2.64
F31	3	53	0.92
F12	3	728	12.57
F22	6	578	9.98
F32	3	367	6.34
F13	3	630	10.88
F23	6	1167	20.15
F33	2	385	6.65
F14	4	345	5.96
F24	4	232	4.01
F34	3	239	4.13
F44	2	458	7.91
s12	2	30	0.52
s13	1	34	0.59
H33	3	352	6.08
ROCKS	N/A	32	0.54
TOTAL	52	5791	100.00