

APPENDIX B

METHODOLOGY FOR DERIVING GRAPE PRODUCTION SUITABILITY CLASSES

The grape production suitability maps are based on a combination of soils and climatic suitability information. Four soils suitability classes are described in Table 27. Four climatic suitability classes were developed based on a blending of the three mapped themes. The result was a matrix with 64 possible combinations (Table B-1) composed of 4 growing degree day (G.D.D.) classes, 4 autumn freeze (Freeze) classes and 4 solar radiation (Solar) classes. The ratings that were given to the climatic parameters were determined subjectively based on experience and grape production at selected benchmark locations.

For example, the area near Gartrell Point (at the Mouth of Trout Creek near Summerland) has been given a Class 2 climatic suitability based on a Class 3 growing degree day accumulation, Class 1 freeze risk and a Class 2 solar radiation. Similarly, the area near Inkameep Provincial Park is Class 2 but has a Class 2 growing degree day accumulation, a Class 2 freeze risk and a Class 1 solar radiation.

The final suitability maps were prepared by developing a rating system based on the soil and climatic suitability. The soil suitability classes 1, 2, and 4 are the same as those described in Table 27. Class 3 soils, made up of soil groups 10 and 11, have been divided into soils with marginal suitability for viticulture (group 10) and soils presently unsuitable for commercial grape production (group 11). The result was 5 soil classes of which 3 are suitable for viticulture and 2 are unsuitable.

Finally, a matrix with 20 possible combinations, the product of 4 climatic suitability classes and 5 soil suitability classes, was developed (Table B-2). Five overall suitability classes were assigned to the various component parts of the matrix. These ratings were determined subjectively based on experience and selected grape production information. For example, a Class 2 grape site suitability class exists in the lake front area near Okanagan Mission (Kelowna) a result of a Class 1 soil suitability and a Class 3 climatic suitability. Similarly, Inkameep Provincial Park has a Class 2 grape site suitability a result of the combination of a Class 2 soil and Class 2 climate.

As a note of caution it must be stated that these two matrices were developed specifically for the Okanagan and Similkameen Valleys and attempts should not be made to transfer these groupings to other areas without careful study.

Table B.1

GROWING DEGREE DAYS AUTUMN FREEZE RISK SOLAR RADIATION	GROWING DEGREE DAYS AUTUMN FREEZE RISK SOLAR RADIATION	GROWING DEGREE DAYS AUTUMN FREEZE RISK SOLAR RADIATION	GROWING DEGREE DAYS AUTUMN FREEZE RISK SOLAR RADIATION
1•1•1	1•1•2	1•1•3	1•1•4
1•2•1	1•2•2	1•2•3	1•2•4
1•3•1	1•3•2	1•3•3	1•3•4
1•4•1	1•4•2	1•4•3	1•4•4
2•1•1	2•1•2	2•1•3	2•1•4
2•2•1	2•2•2	2•2•3	2•2•4
2•3•1	2•3•2	2•3•3	2•3•4
2•4•1	2•4•2	2•4•3	2•4•4
3•1•1	3•1•2	3•1•3	3•1•4
3•2•1	3•2•2	3•2•3	3•2•4
3•3•1	3•3•2	3•3•3	3•3•4
3•4•1	3•4•2	3•4•3	3•4•4
4•1•1	4•1•2	4•1•3	4•1•4
4•2•1	4•2•2	4•2•3	4•2•4
4•3•1	4•3•2	4•3•3	4•3•4
4•4•1	4•4•2	4•4•3	4•4•4

Table B.2

SOILS CLIMATE	SOILS CLIMATE	SOILS CLIMATE	SOILS CLIMATE	SOILS CLIMATE
1•1	2•1	3•1	3•1	4•1
1•2	2•2	3•2	3•2	4•2
1•3	2•3	3•3	3•3	4•3
1•4	2•4	3•4	3•4	4•4