

Figure 3.6a: Maximum number of days exceeding 20 pphm for full load conditions with proposed coal sulfur content of 0.7%

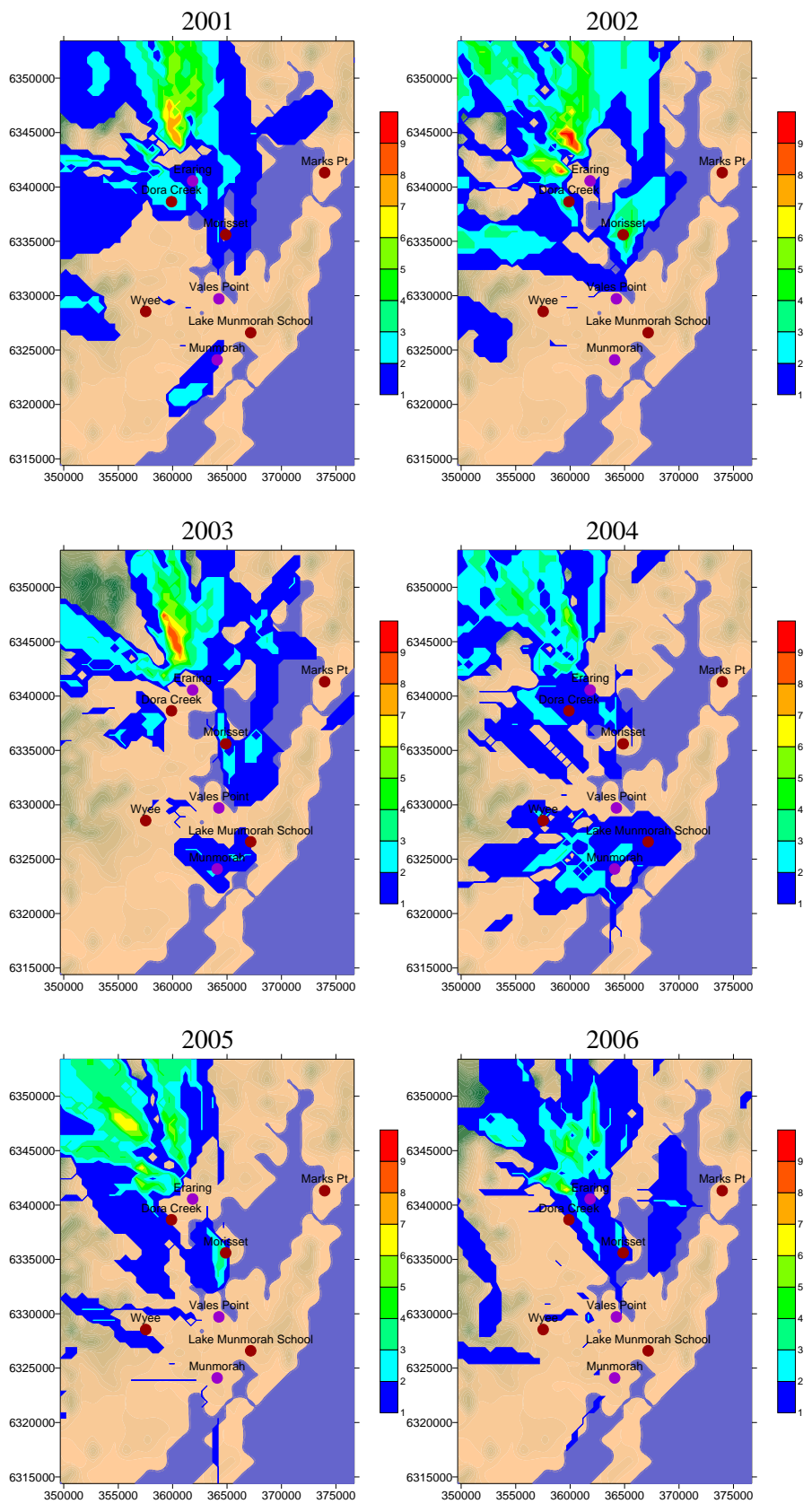


Figure 3.6b: Maximum number of days exceeding 20 pphm for full load conditions with proposed coal sulfur content of 0.75%

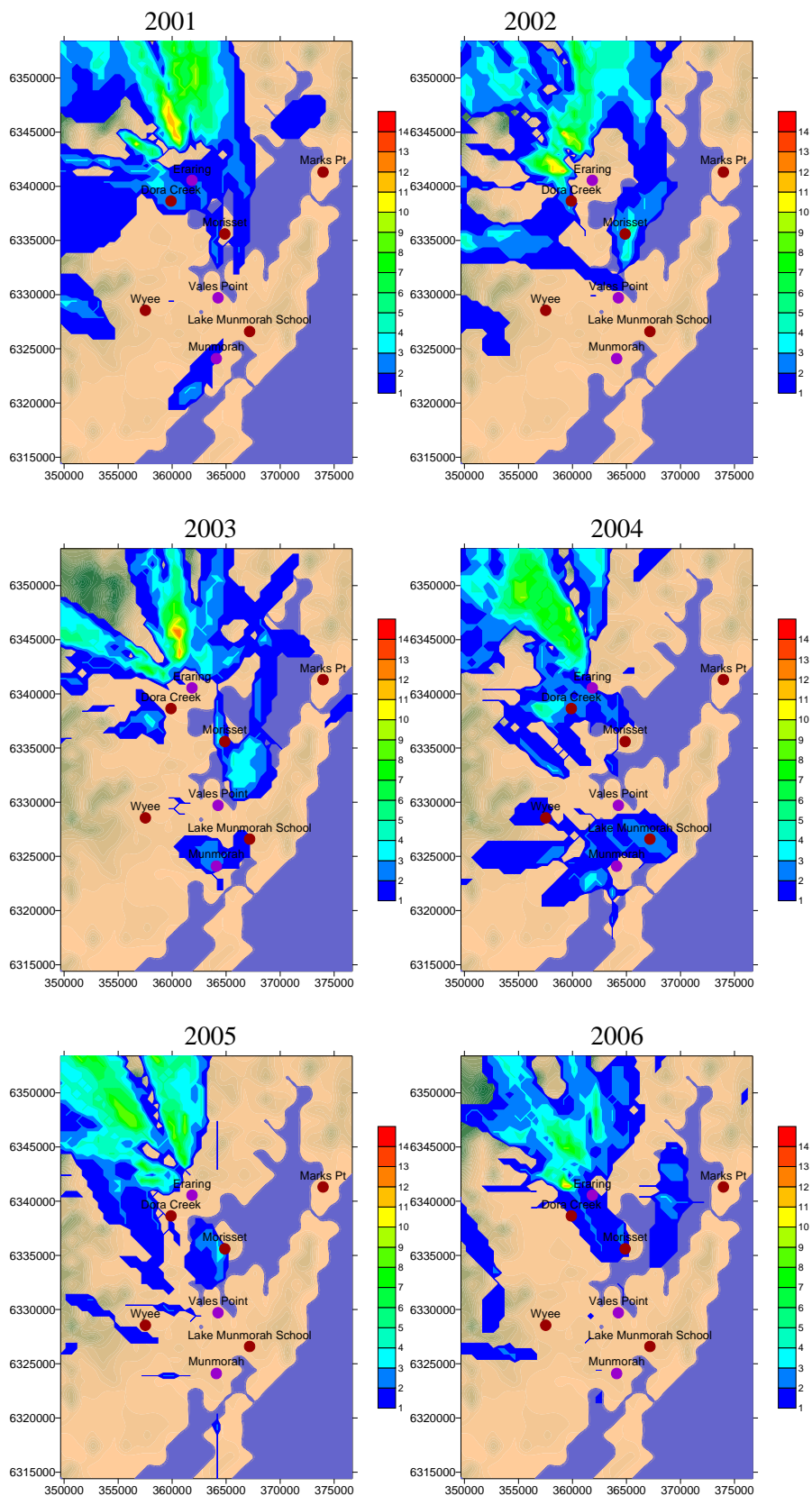


Figure 3.6c: Maximum number of hours exceeding 20 pphm for full load conditions with proposed coal sulfur content of 0.7%

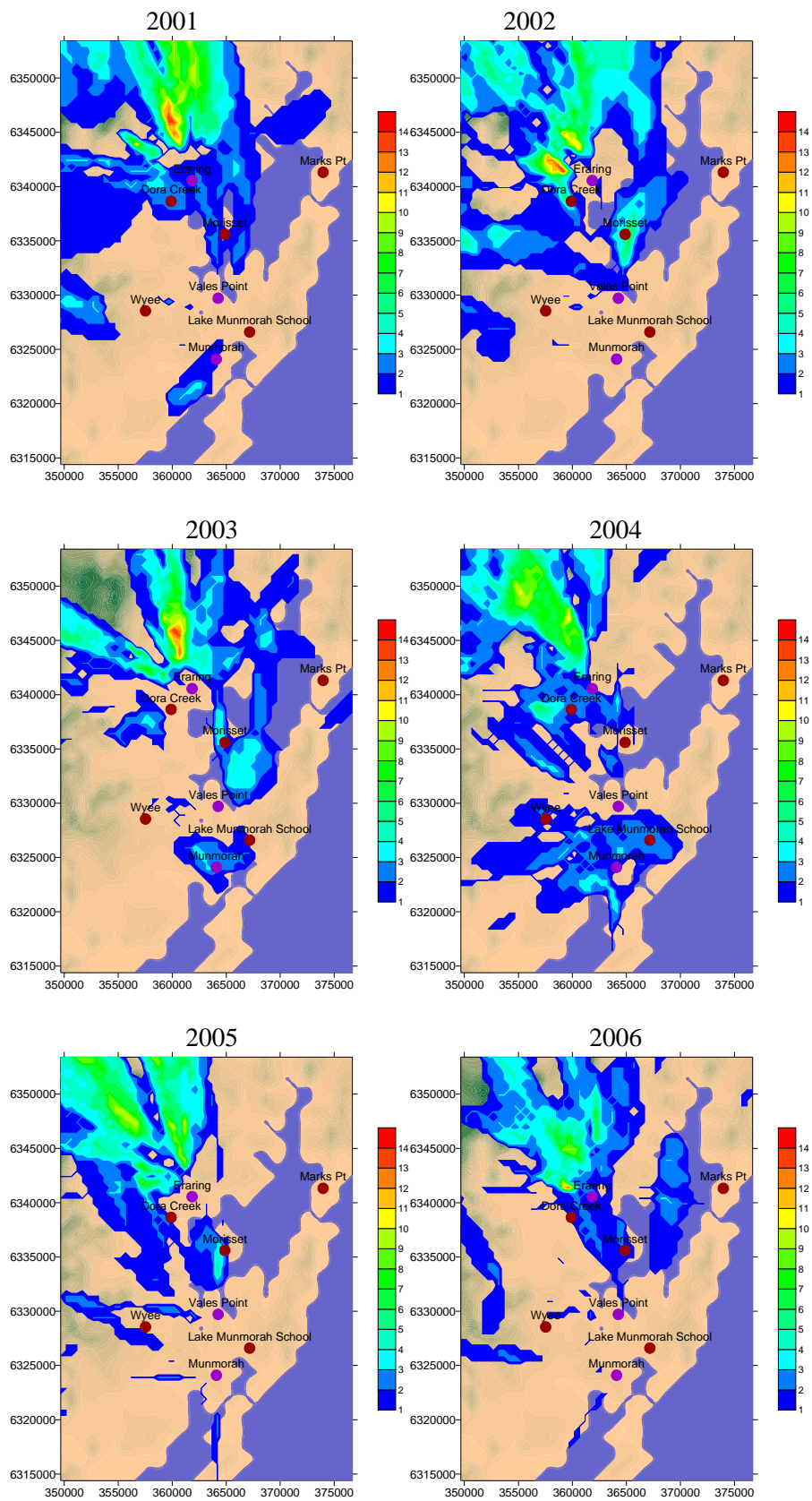


Figure 3.6d: Maximum number of hours exceeding 20 pphm for full load conditions with proposed coal sulfur content of 0.75%

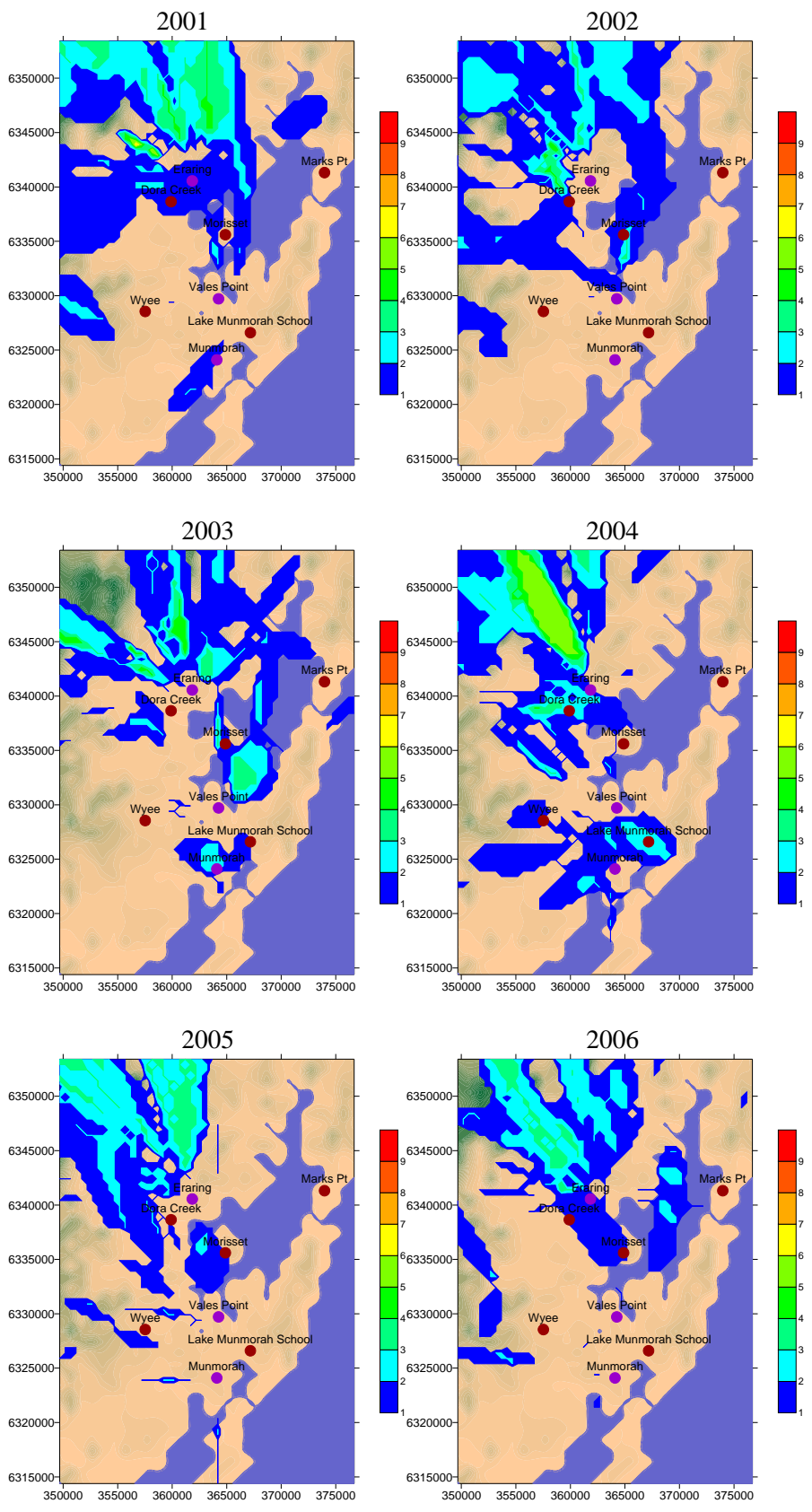


Figure 3.6e: Maximum number of hours on any one day exceeding 20 pphm for full load conditions with proposed coal sulfur content of 0.7%

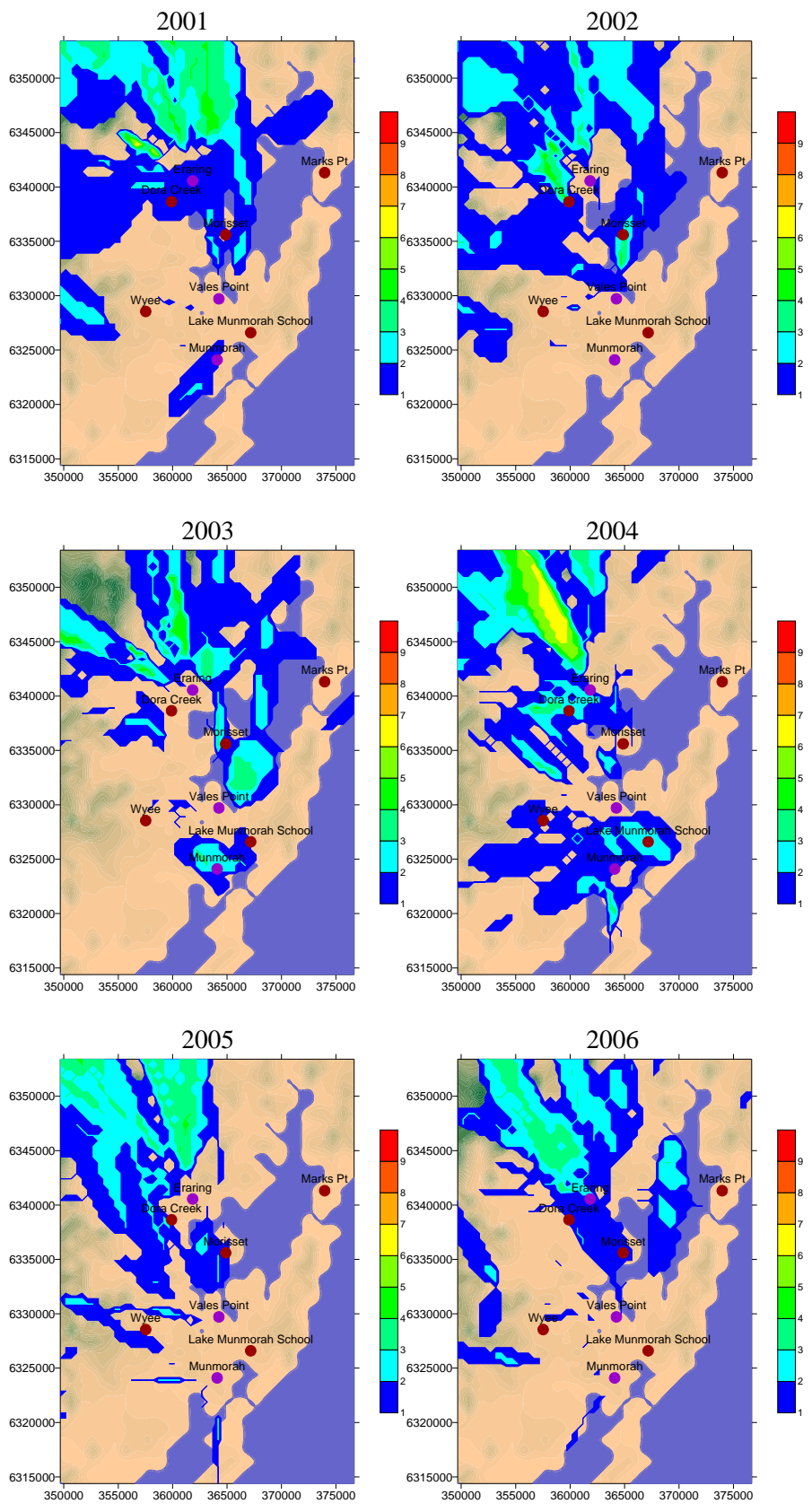


Figure 3.6f: Maximum number of hours on any one day exceeding 20 ppm for full load conditions with proposed coal sulfur content of 0.75%

3.5 Ten minute average

Because TAPM does not explicitly predict concentrations over ten minute periods the ratio of ten minute peaks to one hour averages determined from the ambient SO₂ monitoring data in an earlier study by Carras et al (2001) were used to make an initial prediction of maximum ten minute concentrations. This is consistent with the approach previously used by Lilley et al. (2007).

Carras et al. (2001) found that the ratio of ten minute peaks to one hour averages at each of the monitoring sites in the region (excluding Morisset Peninsula) provided a reasonable fit to the following formulation, which as been applied in the transformation of hourly averages to 10min peaks provided in this report.

$$C_{10} = C_{60} \left(\frac{60}{10} \right)^{0.38}$$

i.e. $C_{10} = 1.9756 C_{60}$

1)

3.5.1 Ten minute first highest concentrations

Table 3.7: Predicted ten minute peak concentrations in the Central Coast region.

CC 2001	Ave	Stdev	Max	Min
PROPOSED 0.7%	33.42	15.51	89.89	11.33
PROPOSED 0.75%	34.83	16.09	92.71	11.56
CURRENT	33.98	15.10	85.94	11.18
CC 2002	Ave	Stdev	Max	Min
PROPOSED 0.7%	31.85	16.47	89.43	6.04
PROPOSED 0.75%	33.30	17.02	92.73	6.13
CURRENT	35.38	18.69	92.43	6.87
CC 2003	Ave	Stdev	Max	Min
PROPOSED 0.7%	31.94	12.70	80.16	11.18
PROPOSED 0.75%	33.15	12.97	85.88	11.36
CURRENT	32.71	12.14	86.77	11.30
CC 2004	Ave	Stdev	Max	Min
PROPOSED 0.7%	34.44	14.24	88.89	6.95
PROPOSED 0.75%	35.73	14.56	88.99	7.32
CURRENT	33.62	13.76	89.04	9.15
CC 2005	Ave	Stdev	Max	Min
PROPOSED 0.7%	30.68	14.70	89.28	7.37
PROPOSED 0.75%	31.87	15.23	91.11	7.79
CURRENT	31.63	14.81	89.90	7.70
CC 2006	Ave	Stdev	Max	Min
PROPOSED 0.7%	31.23	13.48	96.05	7.82
PROPOSED 0.75%	32.58	13.81	96.66	8.24
CURRENT	31.51	12.89	93.85	7.94