4.14.6.2: 2015 Maintenance Analysis

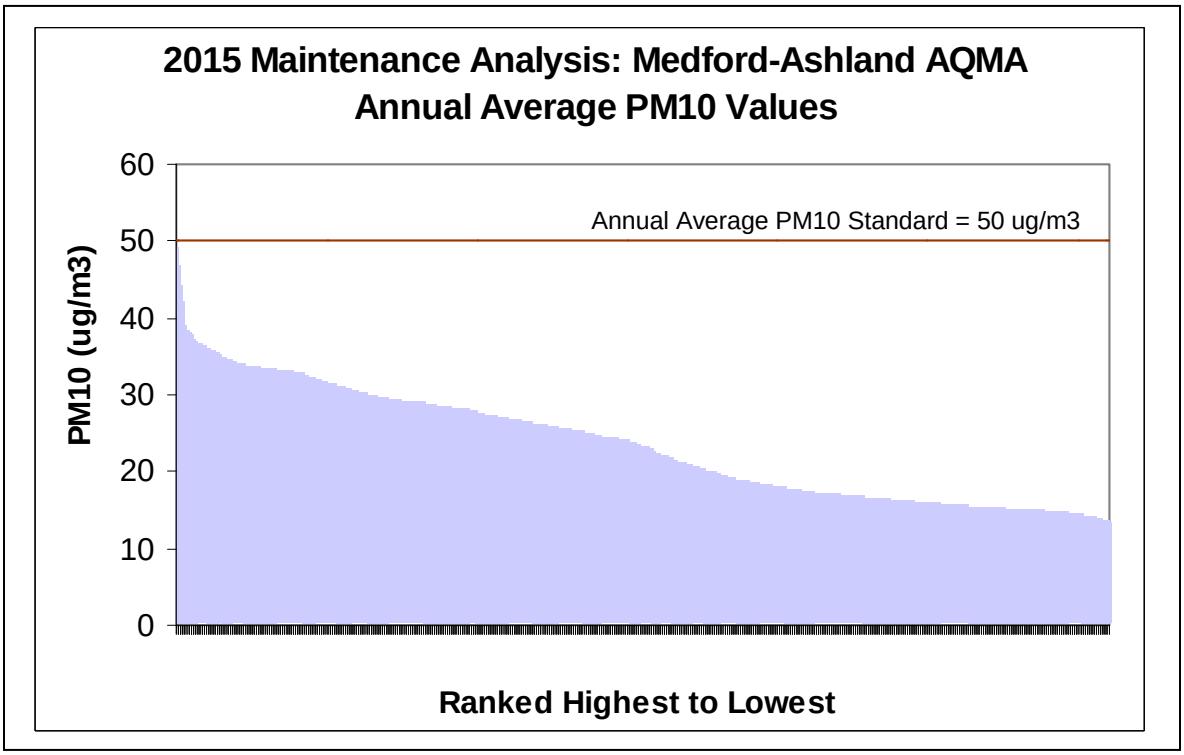
Annual Average Compliance:

Table 12 shows the top one percent of model predicted annual average values for the 2015 analysis (data set of 1244 receptors: initial 1-km spaced receptors plus the hot-spot modeling 0.25km spaced receptors). The annual average PM_{10} standard is 50 ug/m^3. There are no violations predicted of the annual average PM_{10} standard. Figure 56 shows all 2015 annual average values ranked from highest to lowest.

Table 12: Top 1% of model Predicted Annual Avg. PM_{10} values (2015 Maintenance Analysis)

Model Coordinate X	Model Coordinate Y	Predicted Annual Avg. PM_{10} (ug/m^3)	Model Coordinate X	Model Coordinate Y	Predicted Annual Avg. PM_{10} (ug/m^3)
512.00	4697.00	**49.3**	509.50	4687.25	**43.1**
512.00	4698.25	**46.9**	509.75	4686.75	**42.2**
512.00	4697.50	**46.8**	512.00	4697.25	**40.3**
509.25	4687.25	**45.0**	509.75	4687.25	**39.8**
509.75	4687.00	**44.3**	509.75	4686.50	**39.2**
509.25	4687.00	**43.2**	510.00	4686.75	**39.1**

Figure 56: Predicted Annual Average PM_{10} Concentrations in 2015



Daily Compliance: 2015

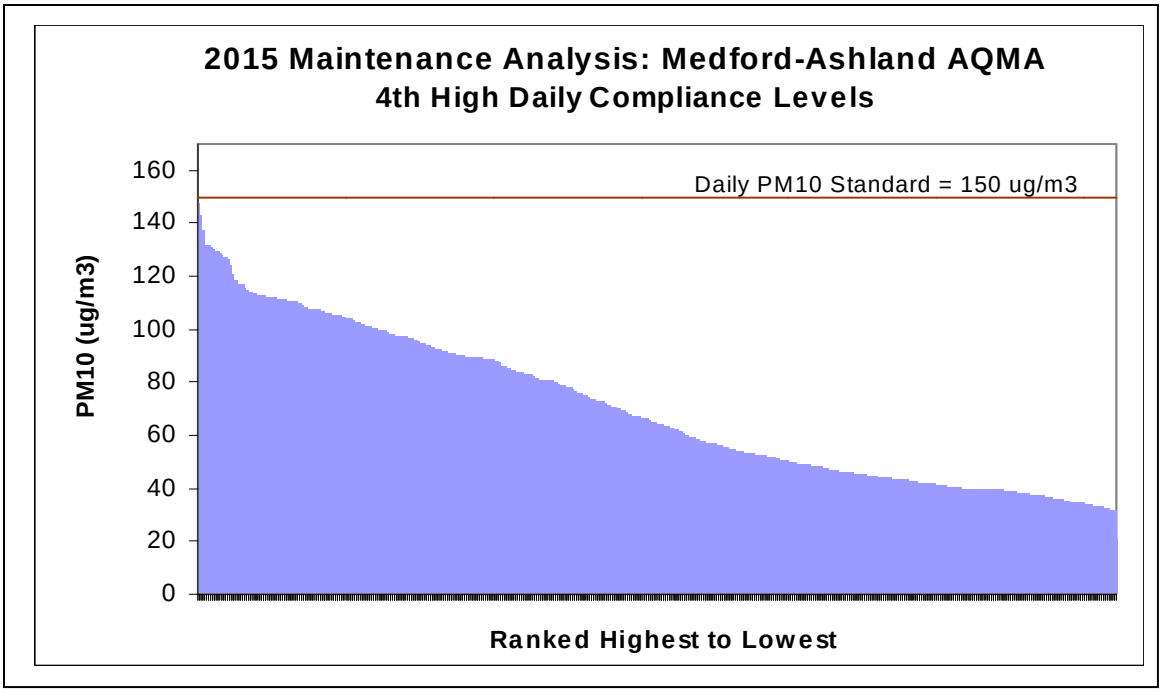
The maintenance analysis shows that all predicted 4th highest daily PM_{10} values in the AQMA will be below the daily PM_{10} standard through at least the year 2015. Table 13 shows the top 1% of predicted 4th high daily values in the 2015 analysis. Figure 57 shows all predicted 4th high daily values ranked from highest to lowest.

The modeling analysis predicts that one exceedance of the daily standard could occur in 2015 (154 ug/m^3) under worst-case conditions (i.e. all major point sources operating at maximum allowable permitted levels). The exceedance is predicted to occur at receptor location (512.00 x 4697.00). This is in the heart of the White City industrial complex. There are no exceedances predicted from residential woodheating in 2015 due to the expected continued decrease of non-certified woodstoves in the AQMA.

Table 13: Top 1% of Model Predicted 4th High Daily PM_{10} Values (2015)

Model Coordinate X	Model Coordinate Y	Predicted 4th High Daily PM_{10} (ug/m^3)	Model Coordinate X	Model Coordinate Y	Predicted 4th High Daily PM_{10} (ug/m^3)
512.00	4697.75	**147.8**	509.50	4687.25	**134.4**
512.00	4697.50	**144.0**	513.00	4687.00	**132.4**
512.00	4697.00	**143.2**	511.00	4685.00	**131.9**
512.00	4698.00	**138.8**	513.50	4686.50	**131.8**
511.00	4686.00	**138.6**	512.75	4686.25	**131.7**
509.50	4687.00	**137.4**	513.50	4686.25	**131.6**

Figure 57: Predicted 4th High Daily PM_{10} Compliance Values in 2015



Predicted PM_{10} values in Table 13 that range from 147.8 ug/m^3 to 138.8 ug/m^3 are predicted to occur in the core White City industrial area. The remaining PM_{10} values in Table 15 are predicted to occur in east Medford, primarily due to woodsmoke. These values do not show the effect of the woodstove curtailment program, which would reduce these peak values substantially.

PM_{10} levels in the AQMA: Air Quality Maps

The air quality maps in Figures 58-59 show predicted annual average and daily (24-hr avg.) PM_{10} levels for the maintenance compliance analysis. These "isopleth" maps use contour lines to show different PM_{10} concentrations. For the annual average isopleth maps, PM_{10} concentrations increase in intervals of 2 ug/m^3. For the daily isopleth maps, PM_{10} concentrations increase in intervals of 10 ug/m^3.

The air quality maps in Figures 60 through 61 show maintenance analysis results for the core urban areas of Medford, Central Point, and White City.

Figure 58: Air Quality Map. Predicted (Worst-Case) Annual Avg. PM_{10} Levels in 2015

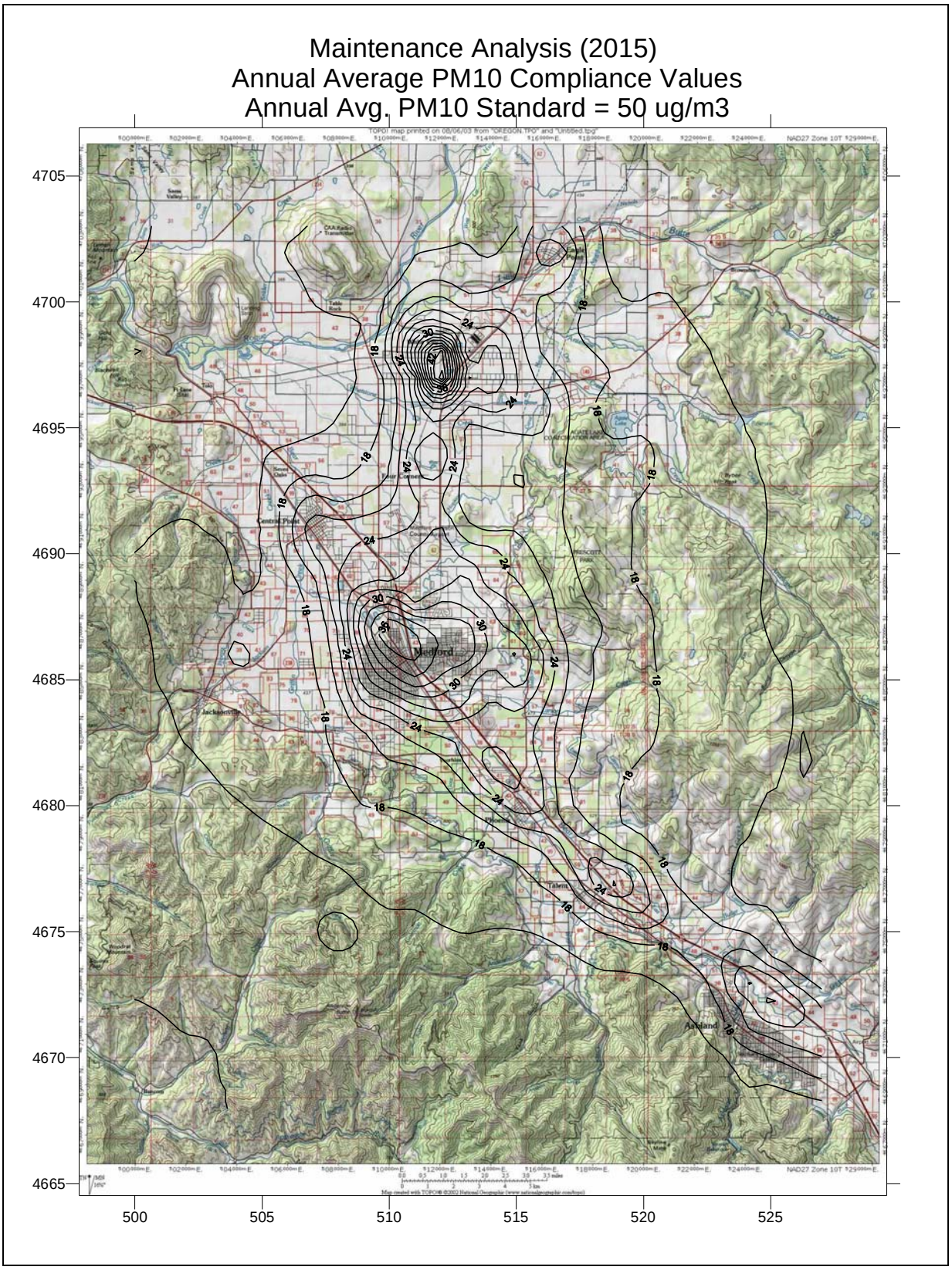


Figure 59: Air Quality Map. Predicted (Worst-Case) Daily PM_{10} Levels in 2015

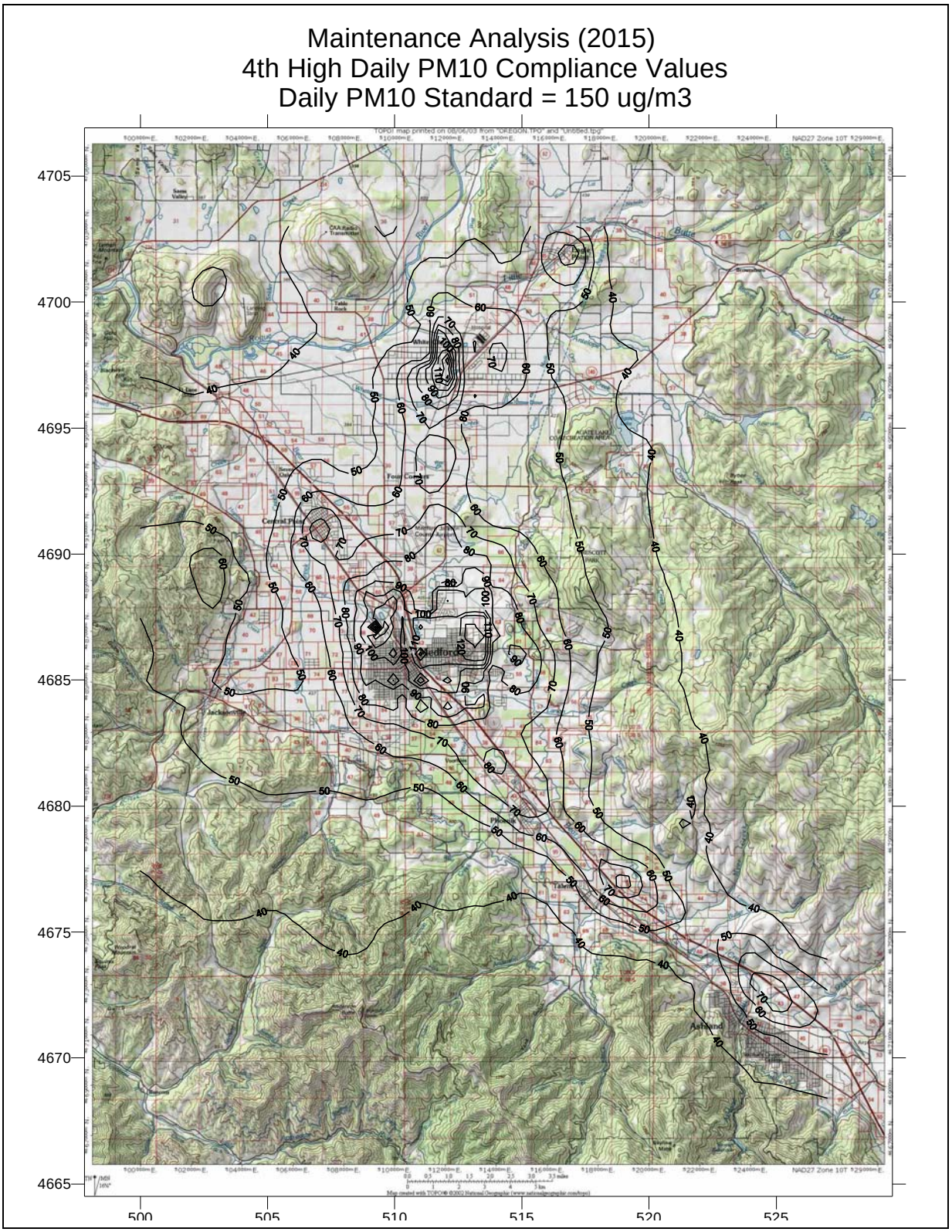


Figure 60: Medford-White City Area. Predicted (Worst-Case) Annual PM_{10} in 2015

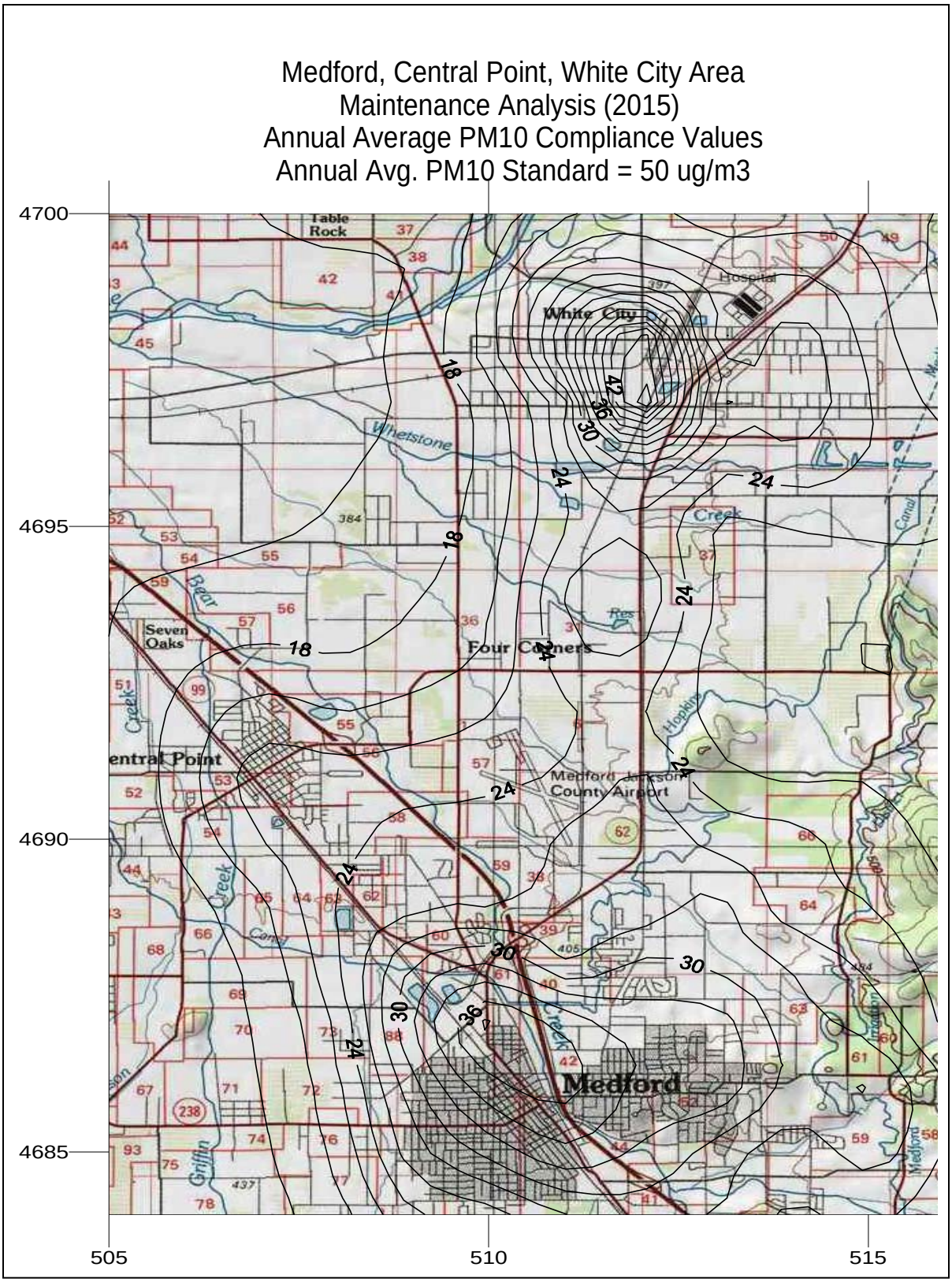
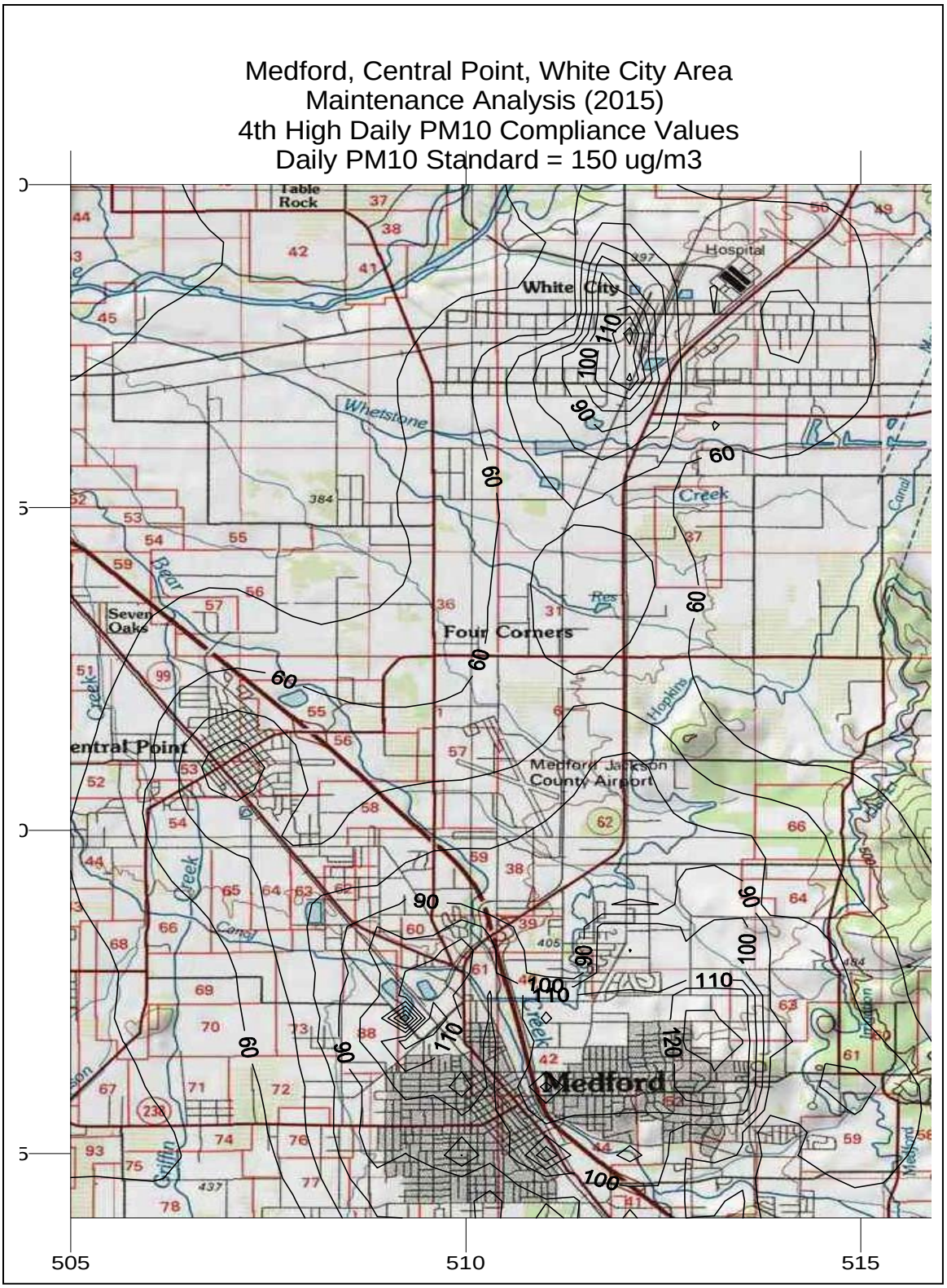



Figure 61: Medford-White City Area. Predicted (Worst-Case) Daily PM_{10} Levels in 2015