

2016 Supplement to Nevada's 2nd 10-Year CO Limited Maintenance Plan at Lake Tahoe

The Nevada Division of Environmental Protection (NDEP) submits the following revisions and clarifications to Nevada's 2012 *Revision to the Nevada State Implementation Plan for Carbon Monoxide: Updated Limited Maintenance Plan for the Nevada Side of the Lake Tahoe Basin* (2012 CO LMP) submitted to the U.S. Environmental Protection Agency (USEPA) on April 3, 2012. These revisions respond to USEPA comments on the 2012 submittal. The NDEP requests that the U.S. Environmental Protection Agency (USEPA) approve the 2012 CO LMP with these revisions into the Nevada applicable SIP.

I. REVISION TO SECTION 3.2.4 OF THE 2012 CO LMP

The NDEP requests that USEPA replace Section 3.2.4 of the 2012 CO LMP submittal with the following revised Section 3.2.4.

3.2.4 Surrogate Method for Tracking CO Concentrations

3.2.4.1 Monthly Average Daily Traffic Count Trigger

Because the potential for high CO is typically in the winter months, the NDEP will use monthly average daily traffic (MADT) counts in its surrogate method. The season for MADT will run from October 1 to March 31 of the next year. To use MADT as a surrogate method for tracking CO levels, the NDEP will conduct an annual review of the seasonal traffic volumes in the Basin using the data from the Nevada Department of Transportation's permanent automatic traffic recorders in Stateline and Incline Village. The NDEP will compare the latest rolling 3-year average of the MADT volumes against the baseline MADT average established by the traffic volume data collected during the 2008-09, 2009-10 and 2010-11 seasons. Table 5 shows MADT counts in Stateline and Incline Village from the 2008-09 season through the 2014-15 season.¹ The baseline traffic volumes, calculated by averaging the three winter seasons 2008-09 through 2010-11, are 1) Stateline: 24,201; and 2) Incline Village: 10,260.

¹ In response to USEPA's review of the 2012 submittal, the NDEP submitted a supplement in 2016 revising section 3.2.4.1. This explains the inclusion of MADT count data through the 2014-15 season.

TABLE 5

SEASONAL MONTHLY AVERAGE DAILY TRAFFIC COUNTS*

	2008-09 Season	2009-10 Season	2010-11 Season	2011-12 Season	2012-13 Season	2013-14 Season	2014-15 Season
Douglas County, station 0052110 in Stateline, NV							
US 50, 0.6 mi east of the state line	24,791	24,212	23,600	23,122	22,848	23,333	24,319
Washoe County, station 0312240 in Incline Village, NV							
SR 28, 0.2 mi N. of Lake Shore Drive	10,276	10,109	10,396	10,125	10,154	10,348	10,618

*Each seasonal monthly average was derived by taking the average of the MADT counts for the months of October through March (e.g., 2008-09 season = the average MADT for the months of October 2008 through March 2009).

Source: Nevada Department of Transportation 2008-2014 Monthly Average Daily Traffic Report, Douglas and Washoe Counties. <http://apps.nevadadot.com/Trina/> (last viewed 6/23/16)

If the MADT count increases by more than 25 percent when comparing the most recent, consecutive rolling 3-year averaging period to the baseline period, at either the Stateline or the Incline Village monitor, then the state will conduct a CO monitoring study alongside the surrogate method during the period October 1 through March 31 immediately following the MADT review, using the Harvey’s SLAMS monitor to determine the actual CO levels in the ambient air. The NDEP retains the monitoring station at Stateline (located at Harvey’s Resort and Hotel on Hwy 50) intact, so that monitoring can be resumed soon after it is triggered. The NDEP commits to having the necessary equipment available to meet the timeframe for resumed monitoring.

Initial trigger levels would be 30,251 for the Stateline MADT and 12,825 for the Incline Village MADT. If the percent increase does not exceed 25 percent, then it will be assumed that the ambient CO concentrations in the affected area have remained relatively unchanged. The MADT data review process will be repeated in the spring of each year during the annual monitoring network review, and the new rolling 3-year average will be compared to the 2008-09 through 2010-11 baseline average.

If the MADT review triggers monitoring, the monitoring data will be submitted to USEPA’s Air Quality System. If the initial or any subsequent monitoring triggered by the annual MADT count analysis results in two or more verified 8-hour average concentrations in excess of 85 percent of the CO NAAQS, excluding exceptional events or events that would otherwise meet the criteria of the Exceptional Events Rule but are below the level of the standard, then the contingency measures process committed to in the first 10-year LMP (Carbon Monoxide Redesignation Request and Limited Maintenance Plan, October 2003. p.16) will apply. The NDEP will inform USEPA and initiate the contingency process described in Section 4 immediately upon the occurrence of a second verified 8-hour average concentration in excess of 85 percent of the CO NAAQS.

3.2.4.2 Conditions for Discontinuing CO Monitoring

Based on the results of the initial six months of CO monitoring and MADT tracking, the NDEP will determine whether continued CO monitoring is necessary. The NDEP is expecting that fluctuations in the 3-year rolling average seasonal MADT will occur, and that such fluctuations should be considered in relation to the monitored CO observations to determine if the CO monitoring can be discontinued and the surrogate approach alone continued. The NDEP recognizes that the priority in establishing appropriate criteria for discontinuing monitoring is to allow fluctuations in MADT to occur, while leaving a sufficient safety buffer between the monitored CO levels and the NAAQS (for instance, to account for variability in climatic conditions). Table 6 shows the decision matrix the NDEP will use in determining whether or not to return to the surrogate method only.

TABLE 6

DECISION MATRIX TO DETERMINE WHETHER TO CONTINUE CO MONITORING *

Percent Change in the 3-year Rolling Average Seasonal MADT from the Baseline	2 ND HIGH OF THE 8-HOUR AVERAGE CO CONCENTRATIONS AS PERCENT OF NAAQS ²			
	≤ 50%	> 50 but ≤ 65%	> 65 but ≤ 75%	> 75%
≤ 20 %	S	S	S	M
> 20 but ≤ 25 %	S	S	M	M
> 25 but ≤ 30 %	S	M	M	M
> 30%	S	M	M	M

Key: S=relly on surrogate method only; M=continue to monitor in following season.

*Assumes monitoring is in effect. The matrix is used to determine whether or not to continue monitoring.

After an initial CO monitoring trigger event and each time CO monitoring is discontinued and the surrogate method only is operative, the MADT threshold for the CO monitoring trigger is increased by an additional factor of 5 percent (e.g., 30%, 35%) above the baseline period. However, the criteria in Table 6 will not change. The NDEP’s annual review and evaluation of MADT for the preceding season will be conducted, even if monitoring is ongoing, and included in the NDEP’s annual monitoring network plan (due July 1) each year through the end of the second 10-year maintenance period (2024).³ If the MADT count increases by more than the current threshold when compared to the baseline period, monitoring will be resumed or continued during the CO season immediately following the MADT review.

² Exceptional events or events that would otherwise meet the criteria of the Exceptional Events Rule but are below the level of the standard will be excluded from the determination of the second high.

³ In response to USEPA’s review of the 2012 submittal, the NDEP added this sentence in its 2016 revision clarifying the MADT count review reporting method. Historic reports for the rolling three-year averages for MADT through the 2014-15 season were submitted to USEPA Region 9 as Attachment D to the August 2016 supplement.

PUBLIC COMMENT DRAFT 7/13/16

The NDEP believes that the criteria for discontinuing CO monitoring, as described in the table above, are very well protective of the CO NAAQS. Based on observations taken in the previous years, the NDEP concluded that any increase in MADT below or equal to 20 percent from the baseline has never caused the 2nd high CO concentration to exceed 75 percent of the NAAQS. In fact, under such circumstances, the NDEP has evidence that even the 1st high does not exceed 100 percent of the NAAQS. Historically, there are no MADT increases or fluctuations above 20-25 percent from the baseline and hence there is no indication for how the CO concentrations will change under these conditions. The NDEP recognizes that, because of this uncertainty, thresholds for discontinuing CO monitoring need to be more conservative than 75 percent of the NAAQS. However, the NDEP also believes that continuing CO monitoring when concentrations are well below the NAAQS would use limited State resources that would be better applied to higher priority projects. The NDEP believes that the tiered approach described in Table 6 represents a proper balance between protecting the NAAQS and appropriate use of State resources.

II. REVISION TO SECTION 4 OF THE 2012 CO LMP

The NDEP requests that USEPA replace Section 4 of the 2012 CO LMP submittal with the following revised Section 4.

One of the federal CAA requirements for maintenance plans is to identify contingency measures to offset any unexpected increases in emissions and ensure maintenance of the standard (CAA 175A). The NDEP is committed to ensuring implementation of all applicable CAA programs that will ensure compliance with the CO NAAQS. If these programs should prove to be insufficient, and the contingency measures process is initiated as described in Section 3.2.4.1, the contingency plan committed to in the first 10-year CO LMP (Carbon Monoxide Redesignation Request and Limited Maintenance Plan, October 2003. p.16) will apply. In the case that the contingency measures process indicates no threat of a future violation, the surrogate method in Section 3.2.4 will be followed. Together with future reductions in CO emissions associated with fleet turnover, the NDEP's commitment provides an ample margin of safety to maintain the CO standard on the Nevada side of the Lake Tahoe Basin.

III. EMISSIONS INVENTORY

The NDEP requests that USEPA append the attached *Mobile Source Emissions Inventory and Future Year Projections for the 2012 Lake Tahoe Basin Carbon Monoxide Limited Maintenance Plan* to its April 3, 2012 submittal as Attachment A.