

Tuesday, June 10, 2014

To: Members of the MAG Street Committee

FROM: Teri Kennedy, Transportation Programming Manager

SUBJECT: UPDATE OF PM-10 CERTIFIED STREET SWEEPER REPLACEMENT POLICY

On October 11, 2011, the MAG Street Committee requested a review of eligibility criteria for the replacement of PM-10 certified street sweepers using Congestion Mitigation and Air Quality (CMAQ) funding allocated to the MAG Region. Specifically, the MAG Street Committee requested MAG staff to consider additional eligibility requirements which would allow funding the replacement of a PM-10 certified street sweeper with less than eight years of service, as the current policy requires. After further evaluation by MAG staff and the Street Committee members, two additional methods were retained for consideration: replacement criteria based on hours or miles of service and a “lemon” policy. The Federal Highway Administration (FHWA) indicated that a “lemon” policy would not be acceptable under the requirements of the CMAQ program. As a result, this method was dropped from consideration.

Background

Table I shows a comparison of useful life policies as currently used by MAG, the Arizona Department of Transportation (ADOT), and the California Department of Transportation (Caltrans).

**Table I
Comparison of Street Sweeper Useful Life Policies**

Useful life	Current MAG policy	ADOT	Caltrans
Years	8 years	10 years	10 years
Hours	N/A	9,000 hours	N/A
Miles	N/A	100,000 miles	N/A

For estimating capital costs and depreciation of street sweepers, an 8 year useful life was used for the MAG region. (Most Stringent PM10 Control Measure Analysis, May 1998)

The California Air Resources Board uses a 10 year useful life as part of calculations to determine the air quality benefits from replacing a conventional street sweeper with a Rule 1186 certified sweeper. (Methods to Find the Cost-Effectiveness of Funding Air Quality Projects, dated May 2005)

Current Policy

PM-10 certified street sweepers are eligible for purchase with CMAQ funds if they replace an existing unit that has not been certified by South Coast Rule 1186, replace a Rule 1186 certified unit that is at least eight years old, increase the frequency of sweeping, expand the area that is swept, or a combination of these functions.

(Page 40 of Methodologies for Evaluating Congestion Mitigation and Air Quality Improvement Projects, September 30, 2011. Recommended by MAG AQTAC, December 2010)

Methodology

To determine an appropriate number of miles and hours of service for replacement based on current utilization of street sweepers within the MAG region, a rounded average of two estimates of the 75th percentile total miles and hours of service on an annual and 8-year basis has been calculated and shown in Table 2.

As part of the application for CMAQ funding for PM-10 certified street sweepers, the applying agency provides sweeping cycle length in days, lane miles to be swept per cycle, and the number of hours in service of the sweeper that is being replaced. The information found in funded Fiscal Year 2014 applications for street sweeper replacements was used to estimate a 75th percentile number of annual miles and hours of service for street sweepers currently being used in the MAG region. Additionally, a Sierra Auction list of retired MAG region street sweepers and their age in years, along with recorded miles and hours of service provided a second estimate of the 75th percentile number of annual miles and hours of service for sweepers in the MAG region.

Table 2
Street Sweeper Replacement Evaluation Criteria

	75th Percentile Total Miles of Service (1 Year)	75th Percentile Total Miles of Service (8 Years)	75th Percentile Total Hours of Service (1 Year)	75th Percentile Total Miles of Service (8 Years)
2013 Funded Street Sweeper Replacements	15,841 miles	126,728 miles	1,876 hours	15,004 hours
Sierra Auction Retired Street Sweeper List	7,914 miles	63,312 miles	1,137 hours	9,096 hours
Rounded Average	12,000 miles	96,000 miles	1,500 hours	12,000 hours

Proposed Change to Policy Text

PM-10 certified street sweepers are eligible for purchase with CMAQ funds if they replace an existing unit that has not been certified by South Coast Rule 1186, replace an older Rule 1186 certified unit, increase the frequency of sweeping, expand the area that is swept, or a combination of these functions. For replacement of an older Rule 1186 certified unit, the unit must be at least eight years old or have recorded 12,000 hours or 96,000 miles of operation.