

Attachment A
RTP/SCS - Needs Projections Approach
Local Streets and Roads Needs

Overview:

The long-range plan requires the calculation of capital maintenance needs for the region's local street and road network. Capital maintenance consists of activities that extend the useful life of the roadway asset by five or more years. This category can be further broken down into capital maintenance for pavements and capital maintenance for non-pavement assets (sidewalks, storm drains, traffic signals, curb and gutter, etc.). It is important to note that capital maintenance needs do not include the cost of "operations" which consists of routine maintenance such as pothole filling, street sweeping and striping as well as overhead expenses. The cost of operating the region's existing local street and road network may be estimated separately.

In November, 2010, MTC staff surveyed all 109 local jurisdictions for information on pavement treatment unit costs, non-pavement asset inventories and revenues available for local street and road maintenance activities. The survey information, combined with condition, inventory and cost data derived from jurisdictions' StreetSaver® pavement management system databases, will be used to calculate the long-range local street and road needs and revenues. Staff intends to have these calculations completed by spring, 2011.

Approach:

Pavement Need

In determining the pavement portion of the capital maintenance need, MTC staff uses a combination of information on maintenance treatment costs and model runs performed on each jurisdiction's StreetSaver® database. Average pavement treatment costs are calculated for each of the nine counties and their jurisdictions using information provided by jurisdictions via the survey. The average costs are inserted into a standardized, regional, best practices decision tree. A decision tree is the maintenance strategy that determines which treatment is most cost effective to be applied to a roadway based on the roadway's condition, and when it should be applied. The decision tree is then imported into each jurisdiction's StreetSaver® database prior to running the unconstrained pavement needs analysis. The costs for pavement maintenance needs will be escalated at a rate of inflation consistent with the rate being assumed for the long-range plan.

Non-Pavement Need

MTC contracted with Nichols Consulting Engineers to develop a model for estimating Non-Pavement need based on information provided by local jurisdictions on non-pavement asset inventory and useful life. One result of their work was an estimation process that uses the inventory of curb and gutter and streetlights as predictors of total regional non-pavement replacement costs. The total regional non-pavement asset replacement cost is then divided by the average of useful life for each of the major non-pavement asset groups in order to estimate an annual maintenance cost. The regional totals are then divided into city non-pavement need and county non-pavement need. The city need is distributed across all jurisdictions based on relative population share and the county need is distributed across the unincorporated jurisdictions based on total lane mileage. San Francisco is considered as a city only.

Capital Maintenance Revenue

Information from the jurisdiction surveys will be used to determine the amount of funding that is expected to be available for local street and road capital maintenance from local and county sources, as well as to determine the expenditure category split-pavement maintenance, non-pavement and operations-by which each jurisdiction expends available local street and road revenue. For the local and county generated revenue sources, an annual average will be determined based on five years of each jurisdiction's budget data. The annual average will then be split by expenditure category and grown over the Plan period. The growth rate that will be used for locally generated revenue is 2.3 percent (based on historical State Controller Office data) and the growth rate used for countywide sales tax measure revenue will be based on information provided by the county sales tax authorities. Projections of statewide revenue traditionally used for local street and road maintenance, specifically funds derived from the state gas tax subvention will be prepared by MTC and split between expenditure categories according to the information provided by each jurisdiction on their survey.

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