



County of Monterey

Board of Supervisors
Chambers
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Legislation Details (With Board Report)

File #:	20-028	Name:	Pavement Management Program Report
Type:	General Agenda Item	Status:	Agenda Ready
File created:	1/9/2020	In control:	Capital Improvement Committee
On agenda:	1/21/2020	Final action:	
Title:	a. Receive a report on the Pavement Management Software Streetsaver and the results for Monterey County; and b. Provide direction on prioritizing projects in an Annual Work Program.		

Sponsors:

Indexes:

Code sections:

Attachments: 1. CIC Report, 2. Attachment A - Monterey County PMP Final Report

Date	Ver.	Action By	Action	Result
1/21/2020	1	Capital Improvement Committee		

a. Receive a report on the Pavement Management Software Streetsaver and the results for Monterey County; and

b. Provide direction on prioritizing projects in an Annual Work Program.

RECOMMENDATION:

It is recommended that the Capital Improvement Committee:

a. Receive a report on the Pavement Management Software Streetsaver and the results for Monterey County; and

b. Support an Annual Work Program for Road Fund:

- Prioritizing projects in the Pavement Management Program using the Streetsaver list
- Applying Scenario 1 (Existing County Funding)
- Including road priorities from the Measure X campaign for local roads.
- Including a program allowing higher priority for projects with at least 50% private funding (match)

SUMMARY:

On February 5, 2018, the Transportation Agency of Monterey County (TAMC) and Monterey County entered into a "Pavement Management Programs Funding Agreement". That agreement established the use of the Pavement Management Program software known as "Street Saver", developed by the Metropolitan Transportation Commission (MTC), to be used as the regional pavement management program. On February 27, 2018, the County subsequently entered into a Reimbursement Agreement with TAMC, to contract the Nichols Consulting Engineers (NCE) to perform pavement condition surveys, budget analyses, trainings, and report under TAMC with reimbursement by the County. The pavement condition surveys and report have been completed, including four (4) different funding scenarios:

- Scenario 1:** County's Existing Funding (\$240 million/10 years) - This scenario is based on the County's existing funding level of \$24 million per year for the next ten years. The analysis for this scenario estimates that at the end of ten years the PCI will drop to 42, the deferred maintenance will increase to \$608.7 million, and the average Remaining Service Life (RSL) for the network will be 11 years.
- Scenario 2:** Maintain PCI at 48 (\$309 million/10 years) - This scenario aims to maintain the pavement

condition of the network at the current PCI of 48. The analysis for this scenario estimates that the required funding is approximately \$309 million over the next ten years. The deferred maintenance will be \$533.1 million and RSL will increase to 14 years.

- Scenario 3: Increase PCI to 70 (\$600 million/10 years) - This scenario aims to increase the network PCI to 70 by the end of the ten-year analysis period. The estimated funding required for this scenario is approximately \$599.9 million over the next ten years. This will decrease the deferred maintenance to \$191.6 million and increase the RSL to 21 years.
- Scenario 4: Best Management Practice (\$725 million/10 years) - This scenario aims to achieve a maintainable network over the next ten years by bringing the network PCI to a maintainable level in the 70s. The analysis for this scenario estimates that the required funding is approximately \$724.9 million over the next ten years. This will increase the PCI to 79 and the RSL to 23 years.

Regardless of the projected expenses for each of the four scenarios, staff will continue to pursue grant opportunities (federal and State) that may exist, as well as apply appropriate mitigations to new developments. As funding options are being reviewed, staff recommends bringing forward other creative solutions to address the road network and spread equity amongst communities:

- Public-Private Partnerships (P3S). Staff has been contacted by private property owners where they would be willing to fund a large portion of a road treatment project, so that it is prioritized into the Annual Work Program for Road Fund and constructed by the County. In benchmarking with other jurisdictions, there are similar programs in use, with 50% cost contribution by the private parties. This proposal could be memorialized as a Memorandum of Understanding (MOU) between the private property owners and County, in similar fashion as a joint construction project between a City and the County. This would also reduce the cost impact to the County while treating a larger quantity of road miles.
- Community patching and sealing program. In the Measure X campaign, community patching and sealing programs for the communities of Castroville, Pajaro, Boronda, and Chualar were specifically identified. These local roads that serve an urban community do not necessarily rank high amongst heavily travelled collector roads such as Old Stage Road, Jolon Road, River Road, Crazy Horse Canyon Road, and numerous others. The community patching and sealing program would provide road rehabilitations within those communities, in parallel with the larger, regional Measure X and SB-1 road projects. Staff recommends programming a portion of these community road patching/sealing projects, in parallel with the other road treatment projects in the subsequent CIPs and Annual Work Programs each year.

Other strategies that staff will explore include:

- Conversion of low volume paved roads into gravel roads. This could reduce maintenance costs.
- Apply road vacations (aka abandonments) where feasible and supported. This would quitclaim public roads back to private property owners as their own private roads.

These two strategies have been presented to the Monterey County Farm Bureau for feedback

DISCUSSION:

Monterey County Resource Management Agency - Public Works (RMA-PW) maintains the transportation network of county roads, county bridges, and road appurtenances (traffic signs, traffic signals, striping, etc.) for the county constituents and road users. RMA-PW strives to keep the transportation infrastructure in a drivable condition so that road users can travel to their destination, provide the path for emergency services / first responders to a call, and deliver the products to market. However, the County currently has over \$700 Million in deferred road maintenance/repairs, \$300 Million in deferred bridge maintenance/repairs, and road

appurtenances at approx. \$500 Million (i.e., all other related, maintained infrastructure within the right-of-way; this includes other related infrastructure (drainage, trees, guardrail, retaining walls, signs, markings, etc.). In addition, Monterey County was hit with about \$60 Million in damages to infrastructure resulting from the 2016 Soberanes Fire and 2017 Winter Storms, with storm damages from the 2019 Winter Storms adding to the expenses.

On November 8, 2016, the voters of Monterey County approved Measure X (Transportation Agency of Monterey County (TAMC) Ordinance No. 2016-01), authorizing TAMC to impose and administer proceeds from a three-eighths (3/8) cent transaction and use tax. On August 29, 2017, the County entered into a Master Programs Funding Agreement with TAMC with respect to allocation of the Measure X funds. One of the obligations of the agreement require the County to develop a Pavement Management Program. The Pavement Management Program is a prioritization tool that helps agencies maintain their roads and streets based on their funding constraints. The Pavement Management Program selected by TAMC and the County was “Street Saver”.

Pavement networks are often the most valuable asset that an agency owns. This asset is not only expensive to replace but is an essential component to the traveling public's safety. Agencies are constantly looking for the most cost-effective ways to perform road maintenance to stretch available funding.

There is a renewed focus on roads in California as a whole and the demand for more accurate data on the conditions of road pavement is expected to grow. The last year has seen positive changes in the funding picture with the recent passage of Measure X in Monterey County and the SB1 Road Maintenance and Rehabilitation Account (RMRA or SB1) in the state. These two funding sources are estimated to contribute about \$15 million per year. In addition, the Road Fund receives a portion of the Transient Occupancy Tax (TOT) collected by the County. However, new revenues come with new accountability measures. Both Measure X and SB1 require jurisdictions to develop a Pavement Management Program (PMP) and roads maintained with RMRA funds will require submittal to the California Transportation Commission (CTC) for approval. Therefore, an essential tool to remain eligible for grant funding is to update and implement our PMP, “Street Saver”.

Pavement Management Programs, including MTC’s “Street Saver” software program, use a metric called the Pavement Condition Index (PCI) for assessing and comparing the assets. The PCI is a measurement of the pavement condition and ranges from zero to 100. A newly constructed road has a PCI of 100, while a failed road has a PCI of 25 or less. A pavement’s condition is affected by the environment, traffic loads and volumes, construction materials, and age.

NCE staff performed pavement condition surveys on the County’s entire road network in September 2018. NCE reviewed maintenance and rehabilitation (M&R) strategies with County staff. This includes the recommendation and selection of appropriate treatments and the determination of treatment unit costs. NCE performed a Budget Needs analysis under both short-term and long-term analysis periods. The Needs Analysis identifies road sections that need treatment and applies the M&R decision trees to each section. The costs are then summed for the entire period. This forms the basis for performing Budget Scenario evaluations, which optimize the road sections for repair under budget scenarios.

This PMP is an ongoing, cyclic process that coincides with and feeds data-driven priorities to the roads portion of the CIP. At a specified frequency, the data must be re-inspected and re-evaluated to confirm the effectiveness of the pavement treatment priorities. Approximately every 2 years, the roads should be re-inspected for PCI so that current data is fed into the prioritization model. This ongoing activity is intended to be part of the RMA CIP development process.

OTHER AGENCY INVOLVEMENT:

RMA staff intends to present to the Budget Committee at their next available meeting.

FINANCING:

Road Fund revenue varies depending on sales and gas tax revenues. The Road Fund is projected to receive \$31 Million in FY2019/20, excluding reimbursements from FEMA (Winter Storms) and FHWA (bridge program):

- Highway Users Tax Account (HUTA). Annual allocation based on maintained mileage, vehicle registration, population, amongst other factors. FY 2019/20 is approximately \$11.4 Million. There currently is no sunset date for these funds.
- SB1 (the Road Maintenance and Rehabilitation Account, or RMRA). Annual allocation based similar to HUTA. FY 2019/20 is approximately \$7.3 Million. There currently is no sunset date for these funds.
- Measure X. Annual allocation-based sales tax divided with a split of 40% TAMC and 60% local agencies, which is calculated on 50% population / 50% lane miles. FY 2019/20 is approximately \$7.4 Million. The sunset date for these funds is FY 2047.
- Transient Occupancy Tax (TOT). Board policy to allocate 25% of TOT for road maintenance that is part of the County's Maintenance of Effort (MOE) obligation through SB1 and Measure X. In FY2019/20, the amount allocated to the Road Fund was capped at approximately \$5.2 Million with the remaining portion assigned to an emergency fund managed by the CAO. FY 2019/20 is approximately \$5.2 Million to the Road Fund and \$ 993,072 allocated to the emergency fund.

The PMP costs to date are approximately \$272,000 and were funded by the County's portion of Measure X to TAMC.

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Attachment:

Attachment A: Monterey County PMP Final Report