

remaining service life (performance and remaining service life to be developed with time); and

(iii) An investment analysis that:

(A) Identifies alternative strategies to improve pavement conditions;

(B) Estimates costs of any pavement improvement strategy;

(C) Determines maintenance, repair, and rehabilitation strategies for pavements using life-cycle cost analysis or a comparable procedure;

(D) Provides for short and long term budget forecasting; and

(E) Recommends optimal allocation of limited funds by developing a prioritized list of candidate projects over a predefined planning horizon (both short and long term).

(d) For any park roads, parkways and other appropriate associated facilities in the inventory or subset thereof, PMS reporting requirements shall include, but are not limited to, percentage of roads in good, fair, and poor condition.

#### **§ 970.210 Federal lands Bridge Management System (BMS).**

In addition to the requirements provided in § 970.204, the BMS must meet the following requirements:

(a) The NPS shall have a BMS for the bridges which are under the NPS jurisdiction, funded under the FLHP, and required to be inventoried and inspected as prescribed by 23 U.S.C. 144.

(b) The BMS shall be designed to fit the NPS goals, policies, criteria, and needs using, as a minimum, the following components:

(1) A database and an ongoing program for the collection and maintenance of the inventory, inspection, cost, and supplemental data needed to support the BMS. The minimum BMS database shall include:

(i) Data described by the inventory section of the National Bridge Inspection Standards (23 CFR 650.311);

(ii) Data characterizing the severity and extent of deterioration of bridge elements;

(iii) Data for estimating the cost of improvement actions;

(iv) Traffic information including volumes and other pertinent information; and

(v) A history of conditions and actions taken on each bridge, excluding minor or incidental maintenance.

(2) A system for applying network level analytical procedures that are capable of analyzing data for all bridges in the inventory or any subset. The minimum analyses shall include:

(i) A prediction of performance and estimate of the remaining service life of structural and other key elements of

each bridge, both with and without intervening actions; and

(ii) A recommendation for optimal allocation of limited funds through development of a prioritized list of candidate projects over predefined short and long term planning horizons.

(c) The BMS may include the capability to perform an investment analysis as appropriate, considering size of structure, traffic volume, and structural condition. The investment analysis may:

(1) Identify alternative strategies to improve bridge condition, safety and serviceability;

(2) Estimate the costs of any strategies ranging from maintenance of individual elements to full bridge replacement;

(3) Determine maintenance, repair, and rehabilitation strategies for bridge elements using life cycle cost analysis or a comparable procedure;

(4) Provide short and long term budget forecasting; and

(5) Evaluate the cultural and historical values of the structure.

(d) For any bridge in the inventory or subset thereof, BMS reporting requirements shall include, but are not limited to, percentage of non-deficient bridges.

#### **§ 970.212 Federal Lands Safety Management System (SMS).**

In addition to the requirements provided in § 970.204, the SMS must meet the following requirements:

(a) The NPS shall have an SMS for all transportation systems serving NPS facilities, as appropriate, funded under the FLHP.

(b) The NPS shall use the SMS to ensure that safety is considered and implemented, as appropriate, in all phases of transportation system planning, design, construction, maintenance, and operations.

(c) The SMS shall be designed to fit the NPS goals, policies, criteria, and needs and shall contain the following components:

(1) An ongoing program for the collection, maintenance and reporting of a data base that includes:

(i) Accident records with details for analysis such as accident type, using standard reporting descriptions (*e.g.*, right-angle, rear-end, head-on, pedestrian-related), location, description of event, severity, weather and cause;

(ii) An inventory of safety appurtenances such as signs, delineators, and guardrails (including terminals);

(iii) Traffic information including volume, speed, and vehicle classification, as appropriate.

(iv) Accident rates by customary criteria such as location, roadway classification, and vehicle miles of travel.

(2) Development, establishment, and implementation of procedures for:

(i) Routinely maintaining and upgrading safety appurtenances including highway-rail crossing warning devices, signs, highway elements, and operational features, where appropriate;

(ii) Identifying and investigating hazardous or potentially hazardous transportation elements and systems, transit vehicles and facilities, roadway locations and features;

(iii) Establishing countermeasures and setting priorities to address identified needs.

(3) A process for communication, coordination, and cooperation among the organizations responsible for the roadway, human, and vehicle safety elements;

(d) While the SMS applies to appropriate transportation systems serving NPS facilities funded under the FLHP, the extent of system requirements (*e.g.*, data collection, analyses, and standards) for low volume roads may be tailored to be consistent with the functional classification of the road and number and types of transit and other vehicles operated by the NPS.

#### **§ 970.214 Federal Lands Congestion Management System (CMS).**

(a) For purposes of this section, congestion means the level at which transportation system performance is no longer acceptable due to traffic interference. For portions of the NPS transportation system outside the boundaries of TMAs, the NPS shall:

(1) Develop criteria to determine when a CMS is to be implemented for a specific transportation system; and

(2) Have CMS coverage for all transportation systems serving NPS facilities that meet minimum CMS needs criteria, as appropriate, funded through the FLHP.

(b) The NPS shall consider the results of the CMS when selecting congestion mitigation strategies that are the most time efficient and cost effective and that add value (protection/rejuvenation of resources, improved visitor experience) to the park and adjacent communities.

(c) In addition to the requirements provided in § 970.204, the CMS must meet the following requirements:

(1) For those NPS transportation systems that require a CMS, in both metropolitan and non-metropolitan areas, consideration shall be given to strategies that promote alternative transportation systems, reduce private automobile travel, and best integrate