MAINTENANCE MANAGEMENT SYSTEM

HANDBOOK

(372 FW2)

May 2002

U.S. FISH AND WILDLIFE SERVICE

DEPARTMENT OF THE INTERIOR

MAINTENANCE MANAGEMENT SYSTEM HANDBOOK
TABLE OF CONTENTS

APPENDICES

INTRODUCTION

The mission of the U.S. Fish and Wildlife Service is "to work with others to conserve, protect, and enhance fish, wildlife, plants, and their habitats for the continuing benefit of the American people."

The Service requires well maintained facilities and equipment that are readily available and reliable to effectively accomplish its mission of stewardship. Service field stations possess mission-essential facilities and equipment required for ongoing support of migratory bird management, fish production, endangered species protection and recovery, other resource management programs, and wildlife-dependent public education and recreation programs. We are gradually adding new facilities and equipment as the size of Service programs grow. We initiated the Maintenance Management System (MMS) in 1985 and fully implemented it in 1989 to enhance Service efforts in planning and budgeting for maintenance activities. We have expanded the system in scope and complexity, and it now houses data for facility capital improvement efforts.

This Handbook provides standardized procedures for documenting maintenance needs and deficiencies at all Service field stations. We estimate the Service's capital investment at over $8 billion for buildings, other structures and facilities, and equipment or vehicles located at 880 field sites. Service owned lands totaling over 94 million acres include National Wildlife Refuges, Wetland Management Districts, National Fish Hatcheries, and administrative sites such as the National Conservation Training Center. In addition, the Service is responsible for upkeep of facilities and equipment at leased sites such as various Law Enforcement and Fish and Wildlife Assistance Offices and the Clark R. Bavin National Fish and Wildlife Forensics Laboratory.

The updated procedures detailed herein provide instructions for inventorying property, conducting condition assessments and other inspections, estimating maintenance costs, developing budget plans, prioritizing projects, reporting data, and accounting for maintenance expenditures in a systematic manner.

In 2000, the Service initiated integration of facility management information using application software known as the Facility Management Information System (FacMIS). FacMIS was created as a "modern, corporate system that links existing Service databases so as to provide one-stop shopping and cross-functional queries of facility data." FacMIS integrates Environmental and Facility Compliance, Federal Financial System, Refuge Management Information System, Fisheries Management Information System, Budget Allocation System, Bridge Safety, Dam Safety, Real and Personal Property Inventories, Seismic Safety, Quarters, and Leased Space databases to enable data search and completion of queries on all facility related data. The Maintenance Management System is a primary component of the FacMIS data integration effort.

1.1 What is the purpose of the Maintenance Management System? The Maintenance Management System (MMS) is a computerized database designed to optimize the management of deferred maintenance and capital improvement activities throughout the Service by using standardized procedures to document and prioritize field facility and equipment needs and to report accomplishments. It is a management tool for planning and budgeting deferred maintenance, capital improvement, equipment repair and replacement, and construction projects. The MMS documentation begins at the ground level with identification of deferred maintenance, capital improvement, construction, and equipment replacement and repair needs by field station managers. The database allows generation of reports that summarize data in a variety of ways such as by maintenance codes, by facility and equipment category, by project cost estimates, by priorities, and by project expenditures. The Service must document all deferred maintenance and construction appropriation projects in the MMS database before they are eligible for funding. We define terms associated with maintenance management efforts in Appendix A. We should apply these terms in all aspects of maintenance and capital improvement programs from budget planning and development to budget execution and financial reporting. The MMS documents deferred maintenance, construction, capital improvement, and equipment needs to aid management in planning and budgeting for Service field activities. As such, we manage it to provide timely and accurate information to the Department of Interior (Department), Office of Management and Budget (OMB), Congress, and others.

1.2 What are the objectives of the Maintenance Management System? The primary objectives of the MMS are to:

A.   Optimize the use of available funds, personnel, facilities, and equipment through effective maintenance management methods.

B.   Provide accurate data for maintenance and construction program decision making.

C.   Systematically identify maintenance needs or deficiencies and capital improvement needs at all field stations.

D.   Determine the unfunded maintenance backlog for the Service.

E.   Establish Station, Regional, and National maintenance and construction project priorities.

F.   Enable preparation of Service maintenance and construction budget requests using systematic, standardized procedures.

G.   Monitor and document corrective actions, project expenditures, and accomplishments.

H.   Conduct comprehensive condition assessments of all Service real and personal property valued at $50,000 or greater.

1.3 What is the scope of the Maintenance Management System?

A. The MMS is a comprehensive inventory of deferred maintenance and capital improvement projects for all Service field stations. This applies to the National Wildlife Refuge System (NWRS), the National Fish Hatchery System, and to administrative sites such as the National Conservation Training Center and the Clark R. Bavin National Fish and Wildlife Forensics

Laboratory. We also include equipment repair and replacement projects for the Refuge and Hatchery Systems. The MMS database, when used in combination with real and personal property inventories and condition assessments housed in the Real Property Inventory database, provides a comprehensive data management program for improving, maintaining, or replacing Service facilities and equipment.

B. The MMS database is a project oriented database that houses deferred maintenance, capital improvement, and equipment replacement needs; it does not include routine or preventative maintenance activities or cyclical facility maintenance projects that we carry out on schedule. Also, consistent with Department definitions, items such as replacement of office furniture, office equipment, and computers; and custodial activities such as grass mowing, snow removal, grounds maintenance, and equipment operation for habitat management purposes are operational. They are funded from the Refuge or Hatchery Operations budget, and we do not include them in MMS. The Department definition of operations is as follows:

> "Activities related to the normal performance of the functions for which a facility or item of equipment is intended to be used. Costs such as utilities (electricity, water, sewage), fuel, janitorial services, window cleaning, rodent and pest control, upkeep of grounds, vehicle rentals, waste management, and personnel costs associated with the performance of these functions are generally included within the scope of operations and are not considered maintenance costs."

1.4 What roles and responsibilities do we associate with the System? Roles and responsibilities for the three organizational levels within the Service follow:

A. **Field Managers**: Field station managers are responsible for: 1) assuring that we update all data for the Real and Personal Property Inventory and the Maintenance Management System at least annually in an accurate, timely, and thorough manner consistent with all national level guidance; 2) identifying field station priorities; 3) completing projects consistent with funding made available; and 4) completing accomplishment reports consistent with national guidance.

B. **Regional Managers**: Regional MMS Coordinators for refuges and fish hatcheries provide guidance and oversee processing of data from field stations. They complete sufficient quality control to assure that all data from the Region is accurate, complete, and corrected, if necessary, to meet all standards. They also coordinate the completion of Regional priorities for ranking projects. Regional Engineering Offices provide technical assistance involving: planning, site selection, project budgeting, project management, design, construction administration, inspection, and cost estimating assistance for all construction projects, environmental compliance, and for more complex maintenance projects as needed; they also oversee the completion of funded construction projects. Regional Contracting Offices are responsible for maintaining current personal property inventories and for providing contracting services to enable timely completion of funded construction and maintenance projects. Regional Facility Management Coordinators for the NWRS will complete comprehensive condition assessments and review Real Property Inventories for 20 percent of all field stations in the Region each year. Regional Directors are responsible for overall integrity of data (complete, accurate, high quality); establishing Regional priorities; overall accountability for completing funded projects consistent with guidance from the Director, and ensuring that we use maintenance funding for its designated purpose; and, assuring timely completion of condition assessments and data submissions. When this data is submitted to the Washington Office, it is considered to be approved by the Regional Director.

C. **Washington Office Managers**: The Washington program offices for refuges, fish hatcheries, and law enforcement working in coordination with the Division of Engineering, are responsible for overall management of the MMS. Refuge, fish hatchery, and law enforcement program staffs are responsible for completing final data quality control, planning and budgeting activities, preparing annual guidance and technical procedures, maintaining the national database structure, preparing nationwide analyses, national database security, records retention, and reporting maintenance budgets. The Division of Engineering is responsible for construction projects and for associated activities such as specialized inspections for dam safety, bridge safety, lead paint, and seismic surveys that enter into decisions on prioritization of projects. National Fish Hatchery System program staff will complete comprehensive condition assessments and review Real Property Inventories for 20 percent of all fisheries field stations in the nation each year. The Division of Diversity and Civil Rights is responsible for gathering information on compliance with the Uniform Federal Accessibility Standards as required by law, and the Americans with Disabilities Act of 1990. The NWRS Office of Budget coordinates the Refuge Roads program and has the lead for development and implementation of policies with the Department of Transportation. The NWRS Division of Outreach and Visitor Services is responsible for guidance on compliance with historic and cultural resource laws. The NWRS Office of Information Technology and Management is responsible for the Service's Real Property Inventory, condition assessments, and cost estimates, with assistance from the Division of Finance that is responsible for reporting capital expenditures due to construction work in progress. The Director is responsible for overall policy development, implementation, and assuring Regional accountability throughout the Service.

2.1 How does the Service inventory its facilities and equipment? The General Services Administration requires that we use Government property inventories in the Service's Maintenance Management System to quantify the complete picture of facilities and equipment we own and to aid in completing inspection and maintenance activities. Field station managers should have accurate and current information on all real and personal property for which they are responsible. We conduct two types of inventories, a Real Property Inventory and a Personal Property Inventory as described below.

2.2 How do we conduct the Real Property Inventory? We conduct the Real Property Inventory through use of a standardized database that collects basic information on all fixed assets with a replacement cost of $5,000 or more. These fixed assets include such items as buildings, roads, bridges, levees, water management structures, fish raceways, boardwalks, fences, and other structures and facilities. We collect data annually and report it to the General Services Administration. The data elements and associated definitions for the Real Property Inventory are in Appendix B. A key feature of this data collection effort is the estimating of the replacement cost of each individual property item. This value, when compared to identified maintenance needs, provides a widely accepted index to describe the relative condition (the Facility Condition Index) of an asset. We have posted the Real Property Inventory (RPI) database to the Service's intranet, and authorized personnel may update records throughout the year (**http://refuges.rmis.fws.gov/**). However, we also a require a comprehensive review and update during September of each year. The Director annually provides guidance for conducting the required inventory update in a memorandum to all Regional Directors.

2.3 How do we conduct the Personal Property Inventory? The Personal Property Inventory catalogs all moveable equipment items with an acquisition cost of $5,000 or more. These items include automobiles, all trucks, heavy construction equipment, agricultural equipment, boats, all-terrain vehicles, weapons, and shop/laboratory/office equipment including laptop computers. The Division of Contracting and General Services maintains personal property records and keeps them current as we transfer, purchase, or dispose of property items. The Division of Contracting and General Services provides annual guidance for conducting required inventory updates. You can find database elements in the Personal Property Inventory database in Appendix C. Also reference the Real Property Manual chapter of the Service Manual.

2.4 How do we use Real or Personal Property numbers in the MMS database? Because we designate maintenance funding for expenditure only on existing, Service-owned property, MMS projects in the deferred maintenance and equipment replacement categories must contain a valid real or personal property number. New construction projects and equipment which does not have a property number will use the following for entries in the property number field:

- Debris removal   debris
- Equipment with acquisition costs less
  than $5,000, but a replacement cost $5,000 or over   acq<5K
- New FWS purchased property awaiting a property number   pending
- Construction appropriation and new
  small construction projects   new const
- Radio projects   radios
- Any project on an overlay refuge where
  the Service does not own the item but
  has maintenance responsibility   overlay

3.1 What are condition assessments? Condition assessments are periodic inspections by qualified personnel to fully determine and document the condition of a facility or item of equipment and to identify repair, rehabilitation, and replacement needs and costs. The Department of the Interior, Office of the Inspector General, and General Accounting Office now require condition assessments. The effort to improve condition assessment documentation will: 1) verify the inventory of constructed assets and major equipment; 2) verify and update current replacement costs; 3) verify or identify maintenance deficiencies focusing on reliable and consistent cost estimates for corrective measures; and 4) provide a reliable facility condition index (FCI) for each asset. The overall result of the systematic and objective condition assessment process is that adequate and reliable cost estimating information is available for effective maintenance and construction budget planning, scheduling, and implementation. A Facility Condition Index, the ratio of the deferred maintenance costs to replacement value, is made possible by data generated from condition assessments. This is an industry accepted indicator of the overall health of facility infrastructure. Since accurate calculation of this index necessitates accurate estimation of both replacement and maintenance costs, the goal of the Service condition assessment effort is to assure that these costs are within plus or minus 15 percent of actual.

3.2 What types of condition assessments do we conduct? Two basic types of assessments, comprehensive and annual, are conducted as described below:

A. We conduct **comprehensive condition assessments** every five years on all field stations managing real or personal property. These are a hands-on assessment by trained Service employees, sometimes assisted by qualified contractors for highly complex or specialized needs. A comprehensive condition assessment for a field station assesses: 1) all constructed assets, however, we will devote primary attention to items with a replacement value of over $50,000; and 2) all equipment with a replacement value of over $50,000. These are the more complex projects on a field station and are the projects most in need of cost estimating assistance from outside entities. In the case of highly complex facilities such as a large visitor center, an interdisciplinary team may need to complete a comprehensive condition assessment. We will also incorporate specialized assessments such as bridge inventories and dam safety inventories conducted by the Service's Division of Engineering and public roads inventories conducted by the Federal Highway Administration as part of the comprehensive condition assessment process.

B. Field stations complete **annual condition assessments** in the intervening years between comprehensive condition assessments. The annual updates verify backlog reductions, add any new deficiencies, and identify substantive changes to facility conditions since the last update. We update maintenance cost data for all projects based on changes in needs since the last update. To update replacement costs already in the Real Property Inventory database, the Washington Office will make changes to replacement cost estimates annually using the latest appropriate inflation cost indices. The field stations will be responsible for entering replacement costs for newly acquired real property.

3.3 How do we manage condition assessment data? We record comprehensive condition assessments and annual updates in the Real Property Inventory database **http://refuges.rmis.fws.gov/** We define data fields in Appendix G. Details of updated deferred maintenance needs quantified in the condition assessment process provide the background information needed to update projects in the Maintenance Management System database. Records produced as the result of the condition assessment process, or source documentation used to develop a project within the Maintenance Management System, will be retained with the property

records until the property is no longer under Service custody. Such records for property no longer under Service custody will be transferred to the new custodian upon completion of the sale, trade, or donation proceedings, or acceptance of purchase money mortgage. Otherwise, records should be transferred to the appropriate real property file upon completion of a given activity. These records are then kept permanently in accordance with 283 FW 2 Appendix 1, item 31, Engineering Records. Record copies of such items as survey maps specifications, tracings, blueprints, budgetary information, and descriptive materials that are <u>not</u> of sufficient technical or administrative value to be included in real property files may be destroyed when determined by competent authority to no longer be needed. This is in accordance with the Service's record schedule, 283 FW 2, Appendix 1.

3.4 How do we conduct comprehensive condition assessments? We provide guidelines for conducting a comprehensive condition assessment in Appendix E. Although there will be a variety of different situations encountered due to the different types of facilities on field stations, these guidelines help standardize the process so that we gather consistent and reliable data. Regional Facility Management Coordinators are responsible for completing comprehensive assessments and incorporating all relevant data into the Real Property Inventory database. Field station managers then incorporate the information into maintenance projects in MMS for prioritization and use in budget development and execution activities.

4.1 What unique individual inspections do we conduct for high visibility or high risk situations? The Service conducts a number of specific facility-related inspections for specialized high risk or high visibility facilities. We undertake independent inspections for these facilities, and inspection reports provide another source of specific data that provides underlying support to MMS documentation. We describe these inspections below:

4.2 What unique inspections does the Division of Engineering complete?

A. **Dam Safety** – The Division of Engineering completes Safety Evaluation of Existing Dams (SEED) reports for all dams in the Service categorized as High or Significant Hazard. These reports, which Division of Engineering updates every 2 years, identify maintenance or rehabilitation needs (Division of Engineering completes SEED reports for Low Hazard Dams every five years). Field station managers and Regional MMS Coordinators should ensure that they include maintenance needs identified in the SEED Inspection Reports in the MMS. MMS project descriptions should include deficiencies noted and reference the SEED report number and date.

B. **Bridge Safety** – The Division of Engineering completes bridge safety reports for all transportation vehicle bridges owned by the Service and classifies bridges as class A, B, or C bridges. These reports which Division of Engineering updates every two years for class A and class B bridges, and every four years for class C bridges, identify maintenance or rehabilitation needs. Field station managers and Regional MMS Coordinators should ensure that they include maintenance needs identified in the bridge inspection reports in the MMS. MMS project descriptions should include deficiencies noted and reference the report number and date.

C. **Seismic Safety** – The Division of Engineering completes the Seismic Safety inspection program which classifies all Service structures as either "exempt" or "non-exempt". Every "non-exempt" building located in high or moderate seismic zones undergoes a Rapid Visual Screening inspection. These inspections document maintenance, rehabilitation, or replacement needs. Field station managers and Regional MMS Coordinators should ensure that they include maintenance needs identified in the seismic inspection reports in the MMS. MMS project descriptions should include structural deficiencies noted and reference the seismic report number and date.

D. **Lead Paint Safety** –The Division of Engineering completes inspections to determine where lead paint poses a health and safety hazard in Service buildings. Reports identify maintenance or rehabilitation needs. Field station managers and Regional MMS Coordinators should ensure that they include maintenance needs identified in these reports in the MMS. MMS project descriptions should include deficiencies noted and reference the report number and date.

E. **Environmental Compliance Surveys** – The Division of Engineering completes these surveys for all field stations on a schedule of once every five years. Recommendations cover a range of topics some of which can have implications for maintenance projects. A common element would be provision of adequate storage for flammable products or asbestos surveys. Field station managers and Regional MMS Coordinators should ensure that they include maintenance needs identified in these reports in the MMS. MMS project descriptions should include deficiencies noted and reference the report number and date.

4.3 What unique inspections do Regional Safety and Health Offices conduct? Regional Safety and Health Staff conduct periodic inspections of specific facilities and determine whether

the facilities are being operated and maintained in a safe manner. They may conduct these inspections in conformance with annual inspection requirements established by OSHA in 29 CFR 1960.25, ad hoc, or in response to a request from a field station. Field station managers and Regional MMS Coordinators should ensure that we include maintenance needs identified as health and safety issues by the Regional Safety and Health Staff in the MMS. MMS project descriptions should include deficiencies noted, reference the report number and date, and describe the nature of health and safety concerns.

4.4 What inspections do we complete for other specialized needs?

A. The Division of Diversity and Civil Rights is developing a new Accessibility Tracking System database that contains information on facility modifications needed to comply with the Rehabilitation Act of 1973 and Americans with Disabilities Act of 1990. We will reference information from this database in MMS project data when it becomes available. All modifications to facilities to comply with the Rehabilitation Act and the Americans with Disabilities Act are eligible to receive maintenance funding.

B. The Federal Highway Administration is conducting comprehensive condition assessments for all public use roads in the National Wildlife Refuge System and the National Fish Hatchery System. The Service will rely on this data to update information on maintenance needs for roads, bridges, and associated structures.

C. Certain real or personal property items may require periodic specialized inspections at specific intervals, yet these items might not meet the criteria that would ordinarily lead to their inclusion in annual or comprehensive assessments. Field station personnel need to clearly identify such items and state the inspection intervals. Other property items may also require specialized inspections from time to time. We will incorporate information from these inspections into MMS projects with specific reference made to the date and nature of the inspection in the MMS project description field.

4.5 How do we charge for Regional Engineering Office overhead?

In order to facilitate payment for Engineering Services related to MMS projects, Engineering must charge time, construction management activities, and expenses for each specific MMS project to the project code established for that project. A project code may be carried over to the next year for activities related to the project closeout, such as reviewing submissions, change request , or other agreed upon Engineering Services. For example: project 60130-1262-D611 FY2000 is awarded but the work is not completed in FY2000, and in FY2001 Engineering may charge overhead to it for submission review and other construction management activities, they would then code to 60130-1262-D611 FY2001 overhead funds. By tracking overhead project by project, we see what Engineering has spent on any project and view possible problem areas. The refuge or hatchery will provide the next fiscal year projects, particularly the MMS projects greater than $100,000, to Engineering as soon as the list is finalized and prior to the start of the next fiscal year, when feasible. By providing Engineering the larger MMS projects prior to the fiscal year they will be done, and setting up MMS project codes for Engineering costs, they will be able to schedule required trips, prepare plans and specifications, and better manage their work load. Also, MMS projects that were awarded the previous year often require Engineering work for submission review, technical evaluation of change orders, or other required time in the next or current fiscal year. Those costs would be charged using the assigned specific project cost codes.

5.1 What types of cost estimating do we use in the Maintenance Management System? Accurate estimates of both replacement and maintenance costs are very important to the effective implementation of the Maintenance Management System. We include cost elements in both the Real Property Inventory and the Maintenance Management System databases as described below.

5.2 How do we estimate replacement costs? We include the estimated cost to replace each individual facility in the Real Property Inventory. We need this data element to calculate the Facility Condition Index. We base replacement costs on actual purchase or construction costs whenever this information is available. In other situations, such as when we acquire facilities with the addition of new lands, we make an estimate of replacement costs based on a replacement cost guide that we incorporate into the database. We establish a base replacement cost one time in the Real Property Inventory database for each individual asset and then adjust replacement costs annually (at the beginning of each fiscal year) for inflation by multiplying the replacement cost for all items in the database by the Consumer Price Index of the preceding year. We base replacement costs for equipment on best available information such as General Services Administration price quotes, vendor price listings, or comparison with recent purchases.

5.3 How do we estimate repair, removal, or capital improvement costs?

A. Capital improvement is the construction, installation, or assembly of a new facility, or the alteration, expansion, or extension of an existing facility to accommodate a change of function or unmet programmatic needs. We summarize these costs in a single field in the MMS database for each individual project. MMS projects incorporate maintenance tasks that we would logically combine as a single project for budgeting purposes. We itemize more detailed repair or removal costs in the Real Property Inventory database when conducting a comprehensive condition assessment. When completing a comprehensive condition assessment, a screen within the Real Property Inventory details cost estimates for individual activities and the associated labor, material, or contract costs. A properly prepared cost estimate includes all labor, materials, and related costs including planning and design, permitting if needed, and construction management costs required to accomplish the job. Each project funded from a Resource Management budget should include a single cost in the MMS database to cover the cost to complete the project from beginning to end. We may phase or separate construction projects into separate projects for planning, design, and construction. In order to provide a consistent approach to budget planning and development, all cost estimates for MMS projects should assume that we will complete work by contract. Field and Regional staffs should review cost estimates as part of the annual MMS database update and adjust cost estimates to the budget year (current fiscal year + 2) based on changes in project needs. We make an annual inflationary adjustment at the national level for the entire database based on the change in the Consumer Price Index over the last year; therefore, field and regional staff should not make adjustments to cost estimates for inflation costs.

B. To ensure national consistency, station managers should use the MMS cost guide as the first choice for estimating repair, removal, or capital improvement costs. Cost estimates may not include projected contingencies for unidentified costs, however, specifically identifiable costs due to impacts of weather, special transport needs, or site conditions are appropriate.

5.4 How do we estimate labor and equipment rental costs? We should estimate labor costs using the MMS cost guide if more specific information is not readily available. The cost guide estimates labor costs by unit measure, i.e.cost per square foot. In order to provide a consistent approach to budget planning and development, all cost estimates for MMS projects should assume

that we will complete work by contract. We also should base labor costs estimated from local vendors, catalogs, or building contractors on labor cost per unit measure, in order to provide for consistent data in the MMS database. Engineering Offices will assist with estimates if needed. Labor cost estimates are more accurate if we analyze the work by its constituent tasks. We must use experience and judgment in estimating labor costs and should include travel time to and from the job, preparation and cleanup time, and delays because of inclement weather, etc. Other costs that we should consider include equipment rental from commercial sources if such equipment is not already available on the field station, and fuel necessary to accomplish the maintenance work.

5.5 How do we estimate material and other costs?

A.   We should estimate material costs using the best source of information that is readily available. In many cases this will be the MMS cost guide. The cost guide estimates material costs by unit measure. We may obtain other estimates using catalogs, local vendors, or contractors and should estimate using material cost per unit measure.

B. Cost estimates also should consider needs for items other than labor and material. Examples include permitting, special needs for specific site conditions, and material transport.   Cost estimates also include amounts for engineering services when required. Condition assessment documentation in the Real Property Inventory will add 17.5 percent (based on historical cost averages) to each project's cost estimate if we identify engineering services. We will fund and manage engineering services on a project by project basis and more complex projects may require more than the standardized 17.5 percent amount. We should also include funds for Regional Office or IRM support that are integral to completing a project in cost estimates.

6.1 What are the data elements within MMS?

A. We must complete all data fields according to instructions in the MMS database using the standardized maintenance codes and definitions in Appendix D. Several data field names are identical in the Real Property Inventory and the MMS in order to relate data from the two data sets. Also, We have developed a standardized maintenance code that categorizes all real or personal property items owned or leased by the Service; this data standard is available electronically at: **http://www.fws.gov/stand/standards/facmaintcode.txt**.

B. Data management and manipulation is dependent upon complete and accurate information for all components of the MMS database. Field stations will submit maintenance projects and deficiencies to the national database (For refuges, **http://refuges.rmis.fws.gov/**; for Fish Hatcheries and Law Enforcement, submit projects to the Regional office using the format and methods established in the Region.)

6.2 What is the schedule for update and use of MMS data? The National Wildlife Refuge System MMS database is now web accessible and, therefore, we can generally update throughout the year, however, the National Fish Hatchery System and Office of Law Enforcement are conducting a once per year data call. While dates may vary slightly from year to year, we have created the following schedule to facilitate timely adjustments to the database and to update records to allow timely completion of 5-year budget plans (WO = Washington Office, RO = Regional Office, DOI = Department of the Interior).

January	WO works with ROs to make any necessary database structure changes
2/15	Data call memorandum from WO to ROs
3/1	Data call from ROs to field stations
5/1	Field submission cutoff
5/1-6/1	Regional quality control review and prioritization completed
6/1	Regional submission of updated MMS data set to WO
6/1-8/15	WO review and quality control
6/1-7/10	Prepare for and hold Peer review meeting (Regional coordinators and WO)
8/1	WO submits draft 5-year maintenance/capital improvement plan to DOI
10/15	Field stations complete accomplishment updating
10/25	ROs complete quality control review of accomplishment reporting
11/10	WO submits accomplishment report to DOI
12/1	WO submits final 5-year maintenance/capital improvement plan to DOI

6.3 How do we enter MMS data?

A.   The MMS database is a comprehensive inventory of deferred maintenance, equipment replacement, and capital improvement projects. We house specific instructions for completing MMS projects. It is important to enter proper nomenclature, applicable codes, and descriptions of the project or deficiency in the correct data fields. Database security measures are developed and implemented at the Washington Office, allowing only authorized users with passwords to access the system or input data. Error symbols on the data input screen ensure that data is entered in the required format. Firewalls are incorporated within the software so that unauthorized users cannot access or compromise the data.

B.   One of the most critical data fields in MMS from a budgeting standpoint is the project description field.   This is where we justify a project through a thorough description of the maintenance need, the corrective actions that we will take, and why it is urgent and important. Our project descriptions are viewed by a wide audience, including Departmental, OMB, and Congressional entities.   Project descriptions need to provide a professional looking and compelling stand-alone description of the maintenance need written in such a way that any reader, regardless of the level of familiarity they may or may not have of Service programs, can understand it. Project descriptions for deferred maintenance projects should be a minimum of 200 words of informative narrative; equipment replacement project descriptions need not be this lengthy.

6.4 How do we document the changes to the information in the Maintenance Management System?

The Service is required to submit to the Department of Interior a 5-year Deferred Maintenance and Capital Improvement Plan. When the plan is completed the data set is archived and a hard copy made.   Other key data sets and reports, such as, accomplishment reports, backlog analysis, specialized projects, and allocation memorandums are also archived each time they are completed and hard copies made. These data sets and hard copies are kept for a minimum of five years at the program office for each budget subactivity. These archived files keep the data as of the date they were completed and archived.   The working database is a live database and contains current information.

7.1 How do we use MMS information in budget planning and execution?

A. We use the MMS in planning and budgeting at the field station, regional and national level. We primarily use MMS data to: 1) describe maintenance and capital improvement project needs on all field stations; 2) identify the comprehensive maintenance backlog (i.e, the unfunded or deferred maintenance) that we must address; 3) provide an ongoing assessment of the relative condition of facilities and equipment through use of the Facility Condition Index; 4) prioritize projects we plan to fund; and 5) track project expenditures and accomplishments for funded projects.

B. Use of MMS and associated data varies somewhat depending on specific funding sources. Procedures for use of data comply with guidelines from OMB, with the Federal Accounting Standards Advisory Board #6 guidelines, and with instructions issued as Attachment G to the annual Departmental guidelines on preparation of the next fiscal year's budget (see Appendix J). We describe application of MMS data to three primary budget sources of Resource Management, Construction, and Transportation funding below.

7.2 How do we use MMS information in Resource Management budget planning and execution? The Resource Management budget is the annually recurring budget source that provides for the ongoing maintenance of Service facilities and equipment. Current budget structures within the Service provide annual Resource Management budgets for the National Wildlife Refuge System, the National Fish Hatchery System, the Office of Law Enforcement, and the National Conservation Training Center. There are three sub-elements within the Resource Management appropriation for maintenance: annual maintenance, equipment repair and replacement, and deferred maintenance.

A. Annual Maintenance - We perform annual maintenance to repair failures during the year in which they occur. This includes regularly scheduled preventive or cyclic maintenance performed in the year in which it is scheduled to occur. Examples include scheduled servicing, repairs, inspections, adjustments, and replacement of parts that result in fewer breakdowns and fewer premature replacements to achieve the expected life of facilities and equipment. This will keep facilities and property from falling into disrepair and ending up in the deferred maintenance backlog and help to ensure they meet their intended service life. We may use annual maintenance funding on buildings, facilities, structures, equipment, and their component parts which are worn out, damaged or broken. We also use annual maintenance funds to buy supplies and services needed to perform these maintenance requirements. Annual maintenance does not fund salaries of permanent staff as operations accounts cover these salary costs. It may fund salaries of temporary or seasonal staff hired to perform maintenance activities. We budget annual maintenance funds for the National Wildlife Refuge System, the National Fish Hatchery System, the Office of Law Enforcement, and the National Conservation Training Center. We do not allocate these funds by project, and they are not a part of the five year planning process. Annual maintenance funds are not to be used for habitat management activities. The MMS database does not include Annual Maintenance projects. We are to use annual maintenance funding in the National Fish Hatchery System specifically for annual maintenance labor, deferred maintenance labor, and annual maintenance material.

B. Equipment Repair and Replacement - Equipment Repair and Replacement is to repair or replace damaged and worn equipment that has a replacement value greater than $5,000 and less than $25,000. This sub-element also includes the replacement of passenger carrying vehicles and

light trucks, even though some vehicles may exceed the $25,000 threshold applied to other projects. We fund repair or replacement of individual portable or mobile radios in the Equipment Repair and Replacement budget; we budget replacement of entire radio systems (base units, repeaters, towers, mobiles, and portables) in the Deferred Maintenance budget. We budget Equipment Repair and Replacement funds for the National Wildlife Refuge System, the National Fish Hatchery System, and the Office of Law Enforcement. We identify all projects in the MMS database, but do not include all in the five year plan annually submitted to Congress.

C. Deferred Maintenance

(1). Deferred Maintenance is maintenance that we did not perform when scheduled and was put off or delayed for a future period. Deferred Maintenance includes the repair, rehabilitation, or replacement of facilities and damaged heavy construction and agricultural equipment with shortened utility because we have not performed maintenance. We include large equipment items with replacement costs greater than $25,000 (excluding passenger vehicles and light trucks) in the Deferred Maintenance budget. We budget repair or replacement of entire radio systems (base units, repeaters, towers, mobiles, and portables) in the Deferred Maintenance budget; we fund repair or replacement of individual portable or mobile radios in the Equipment Repair and Replacement budget. We budget Deferred Maintenance funds for the National Wildlife Refuge System, the National Fish Hatchery System, and the Office of Law Enforcement. We identify all deferred maintenance projects in the MMS database and include them in the five year plan that we annually submit to Congress. We include individual projects in the five year plan for all facility related projects; for heavy construction and agricultural equipment, the five year plan includes a single nationwide project that lumps all repair, rehabilitation, and replacement needs. The National Fish Hatchery System does not list any equipment repairs or replacement in the National Wildlife Refuge System deferred maintenance project list.

(2). Deferred Maintenance projects for the Resource Management budget must meet the following criteria:
(a) They require relatively simple engineering planning and design.
(b) They do not expand the capacity of an asset or otherwise upgrade it to serve needs different from, or significantly greater than, those originally intended (FASAB, Number 6). The project does not increase the size of the original building or facility by more than 10 percent, and the project is less than 10 percent capital improvement.
(c) The funds to plan, design, and complete the project must occur within one fiscal year (we may complete minor planning and engineering for permit processing in advance).
(d) We limit costs to less than $500,000 per project with exceptions for major equipment purchases and materials procurement.
(e) We may replace facilities or equipment provided they meet the above criteria.
(f) We allow removal and demolition of structures for alleviation of safety, health, or environmental hazards, for items that are an attractive nuisance to visitors or trespassers, and to make way for new or replacement construction.
(g) We allow replacement of damaged, broken, or severely deteriorated permanent exhibits. Replacement of exhibits with outdated messages are an operational expense rather than included in deferred maintenance requests.
(h) Projects must not fund salaries of permanent employees as operations accounts cover them; they may fund salaries of temporary or seasonal staff hired specifically to complete the projects.
(i) Projects must not include biological surveys, monitoring, biological control, pesticide applications or re-establishment of vegetation.
(j) Projects are to be a minimum of $25,000.

(3). The Chief, National Wildlife Refuge System or Assistant Director - Fisheries and Habitat Conservation or Assistant Director Law Enforcement must approve in writing prior to inclusion on MMS project lists or expenditure of Resource Management funds any project planned for Resource Management funding that does not meet these criteria.

7.3 How do we use MMS information in Construction budget planning and execution? The MMS database contains a complete inventory of known construction needs. The construction budget is multi-year funding managed within the Service by the Division of Engineering. Construction projects normally require extensive engineering planning and design, and are of such complexity that we generally cannot accomplish planning, design, and construction within a single fiscal year. The total scope of a construction project generally exceeds $500,000 in cost. Construction projects may have both a maintenance (replacement, reconstruction, renovation, or demolition of an asset without expanding it or changing its function) and a capital improvement component (erection, installation, or assembly of a totally new facility or the expansion or alteration of an existing facility to serve needs different from or significantly greater than those originally intended). We require all construction projects in the MMS database to have a Construction Project Data Sheet (PDS) with a brief justification and engineering review. The PDSs will provide for efficient project review and prioritization in addition to improving cost estimates. Because of their larger size and major funding implications, construction projects receive close scrutiny in the Department's five year planning process.

7.4 How do we use MMS information in Transportation budget planning and execution? The Service works under terms of a Memorandum of Understanding in administering programs in cooperation with the Federal Highway Administration to rehabilitate public use roads, bridges, parking areas, and associated facilities on National Wildlife Refuge System lands. We manage the primary program, the Refuge Roads program established in the Transportation Equity Act for the 21st Century, through projects identified in the MMS database. Eligibility for project funding from this program is in the "Guidance on the Federal Lands Highway Refuge Roads Program" found in Appendix I. The MMS database contains a full inventory of refuge roads, and other Transportation Department eligible projects, and provides the mechanism for planning, prioritizing, funding, and reporting accomplishments for these efforts. We assemble a multi-year plan of refuge roads projects each year to assist in planning and to better coordinate with the Federal Highway Administration.

7.5 How do we develop and apply Five-year maintenance and capital improvement plans? The development of a five year Maintenance and Capital Improvement Plan is an important step in the improvement of the Service's infrastructure. The Five-Year Plan lists projects we are to complete with Refuge Maintenance, Fish Hatchery Maintenance, Law Enforcement Maintenance, and Construction funds that we annually develop and transmit to Congress. We also report the completion of deferred maintenance and capital improvement projects at the end of the fiscal year. We apply this same planning process in all Bureaus within the Department of the Interior following instructions in Attachment G to the annual Departmental instructions for preparing the next year's budget (latest version in Appendix J). The use of common definitions for facilities management terms helps provide a more consistent and credible view of budgeted resources and capital investments, goals, needs, and priorities to the Administration and Congress.

7.6 How do we monitor and report maintenance and capital improvement accomplishments?

A. We track funded maintenance and capital improvement projects within the Service's financial system to assist in managing execution of budget funds. We fund construction on a project-by-project basis and assign an individual project number for financial tracking purposes. We may

administer Transportation Department funded projects either within the financial systems of the Federal Highway Administration or within the Service's financial system; in either case we assign them individual project numbers to facilitate tracking of expenditures. We monitor refuge and fish hatchery projects using the project numbering process described in Appendix K. As such, all maintenance expenditures documented in the Federal Financial System (FFS) must include an appropriate FFS project number .

B. We may only replace buildings, structures, vehicles, and equipment documented by the MMS system once we consider them substandard. We will track them by property number of accomplished projects. If we replace a building or structure in MMS for health and safety reasons, we shall remove the original building. We may not transfer vehicles and equipment replaced under MMS to other stations for use.

C. In the event that we complete a maintenance project in the Five-Year Plan under budget or must defer it, we must use funds from those projects to accomplish other "planned" deferred maintenance projects in the Five-Year Plan or to correct an emergency problem.

D. Each year we prepare a standardized accomplishment report using Departmental instructions in Appendix J. We have incorporated the format and coding for completing this report into the MMS database. This is the vehicle for completing the annual accomplishment report.