



**FOREST SERVICE MANUAL
NATIONAL HEADQUARTERS (WO)
WASHINGTON, DC**

FSM 1900 - PLANNING

CHAPTER 1940 - INVENTORY, MONITORING, AND ASSESSMENT ACTIVITIES

Amendment No.: 1900-2009-1

Effective Date: February 2, 2009

Duration: This amendment is effective until superseded or removed.

Approved: ABIGAIL R. KIMBELL
Chief

Date Approved: 01/05/2009

Posting Instructions: Amendments are numbered consecutively by title and calendar year. Post by document; remove the entire document and replace it with this amendment. Retain this transmittal as the first page(s) of this document. The last amendment to this title was 1900-2008-2 to FSM 1970.

New Document	1940	20 Pages
Superseded Document(s) by Issuance Number and Effective Date	None	

Digest:

1940 - Establishes new chapter and sets forth direction establishing the information management framework for all Forest Service inventory, monitoring, and assessment activities.

FSM 1900 - PLANNING
CHAPTER 1940 - INVENTORY, MONITORING, AND ASSESSMENT ACTIVITIES

Table of Contents

1940.1 - Authority.....	3
1940.11 - Statutory Authorities.....	3
1940.12 - Executive Orders	12
1940.13 - Regulations	14
1940.2 - Objectives.....	15
1940.3 - Policy	15
1940.4 - Responsibility.....	16
1940.41 - Deputy Chiefs	16
1940.42 - Information Management Council.....	16
1940.43 - All Agency Line Officers	16
1940.44 - Washington Office Staff Directors	17
1940.5 - Definitions	17

FSM 1900 - PLANNING
CHAPTER 1940 - INVENTORY, MONITORING, AND ASSESSMENT ACTIVITIES

Land management is an adaptive process that includes social, economic, and ecological evaluations of conditions and trends that contribute to sustaining social, economic, and ecological systems. The Forest Service is committed to collaborating internally and with other land management partners to provide highly credible resource information that meets a wide range of needs. Credible information requires inventory, monitoring, and assessment activities that are appropriately standardized, consistent, and effective.

This chapter establishes the information management framework for all Forest Service inventory, monitoring, and assessment activities, including those under the direct authority and responsibility of each Deputy Chief (for example, Forest Health Monitoring, Forest Inventory and Analysis, LMP monitoring, the RPA Assessment, fire monitoring, and so forth). As established by this chapter, the information management framework includes the broad authorities, management objectives, policies, responsibilities, and processes that support Forest Service land management.

1940.1 - Authority

The following authorities direct the Forest Service to carry out the activities of resource inventory, monitoring, and assessments. Some of these direct the Forest Service to provide for cooperative roles for certain Tribal, State, and Federal agencies based on the jurisdiction of those agencies.

1940.11 - Statutory Authorities

Major statutory authorities that direct the overall management of information include:

1. Paperwork Reduction Act of 1980, as amended by the Paperwork Reduction Act of 1995 (44 USC 35). Directs Federal agencies to perform information resources management activities in an efficient, effective, and economical manner; to follow uniform and consistent information resources management policies; to apply information management principles, standards, and guidelines; to evaluate information resources management practices according to adequacy and efficiency; and to comply with policies, principles, standards, and guidelines promulgated by the Office of Management and Budget.
2. Federal Managers Financial Integrity Act of 1982 (31 USC 3512). Directs Federal agencies to design management structures to help ensure accountability for results and include appropriate cost-effective controls.
3. Government Performance and Results Act of 1993 (GPRA, P.L. 103-62). Establishes for Federal agencies the goal of integrating budget and performance by directing those agencies to establish performance plans containing indicators upon which measurement of success will occur; to ensure, to the extent practicable, information relevancy,

FSM 1900 - PLANNING
CHAPTER 1940 - INVENTORY, MONITORING, AND ASSESSMENT ACTIVITIES

accuracy, and timeliness; and to assess program performance primarily according to outcome goals, rather than output goals, including outcome goals associated with cost, understandable dissemination, and mission achievement.

4. Clinger-Cohen Act of 1996 (P.L. 104-106). Establishes that Federal agencies will manage information technology and information resources by using sound management principles, including project planning, and will improve the efficiency and effectiveness of agency operations and the delivery of agency services through effective use of information technology.

5. Information Quality Act of 2001 (Data Quality Act, P.L. 100-554, section 515). Directs Federal agencies to ensure and maximize the quality, objectivity, utility, and integrity of information disseminated including statistical information, to ensure the information is useful, clear, and sound.

Major authorities specific to coordination and collaboration associated with resource inventory, monitoring, and assessments include:

1. Cooperative Funds Act of June 30, 1914 (16 USC 498 as amended by Public Law 104-127). This Act authorizes the Forest Service to accept money received as contributions toward cooperative work in forest investigations or protection, management, and improvement of the National Forest System (FSM 1584.11).

2. Granger-Thye Act of April 24, 1950 (16 USC 572). Section five of this Act authorizes the Forest Service to perform work to be done for the benefit of the depositor, for administration, protection, improvement, reforestation, and such other kinds of work as the Forest Service is authorized to do on lands of the United States: (a) on State, county, municipal, or private land within or near national forest land, or (b) for others who occupy or use national forests or other lands administered by the Forest Service.

3. Sikes Act of September 1, 1960 (16 USC 670g-6701, 670o, Public Law 86-797, as amended). This Act authorizes the Forest Service to cooperate with State wildlife agencies in conservation and rehabilitation programs for fish, wildlife, and plants considered threatened or endangered.

4. Intergovernmental Cooperation Act of 1968, as amended by the Intergovernmental Cooperation Act of September 13, 1982 (31 USC 6501-6508, Public Law 97-258). Title III of this Act authorizes the Forest Service to provide special or technical services to States or subdivisions of States.

5. Federal Advisory Committee Act (FACA) of 1972, as amended (5 U.S.C. Appendix 2). This Act regulates the establishment, use, and reporting of advisory committees.

FSM 1900 - PLANNING
CHAPTER 1940 - INVENTORY, MONITORING, AND ASSESSMENT ACTIVITIES

6. Cooperative Funds and Deposits Act of December 12, 1975 (16 USC 565a1-a3, Public Law 94-148). This Act authorizes the Forest Service and partners to perform work from which they would accrue mutual non-monetary benefit.
7. Cooperative Forestry Assistance Act of 1978, as amended (16 USC 2101-2114, Public Law 95-313). This Act authorizes the Forest Service to work through and in cooperation with state foresters or equivalent agencies, and other countries in implementing technical programs affecting non-federal forest lands.
8. 1990 Farm Bill (PL 101-624). This Bill authorizes Federal financial assistance for forest pest prevention and suppression on forested lands in all ownerships for the purposes of promoting healthy sustainable forests, forest stewardship, and sustainable economic development.
9. Interior and Related Agencies Appropriations Act of 1992 (Public Law 102-154, (Challenge Cost Share)). This Act authorizes the Forest Service to cooperate with others in developing, planning, and implementing mutually beneficial projects that enhance Forest Service activities, where the partners provide matching funds or in-kind contributions. Partners may be public or private agencies, organizations, institutions, or individuals (FSM 1587.12). The Act also gives the agency the authority to provide non-monetary awards and to incur necessary expenses for the non-monetary recognition of individuals and organizations (FSM 6511.13e).
10. The Freedom of Information Act of 1966 (5 U.S.C. 552) as amended 1996 (P.L. 104-231, 1105 at 3048). This Act requires agencies of the Federal Government to make certain agency information available for public inspection and copying, and to establish access to the records of such agencies, subject to statutory exemptions, for any public or private purpose.
11. Secure Rural Schools and Community Self-Determination Act of 2000 (Public Law 106-393; also called "Payments to States"). This Act establishes resource advisory committees as a mechanism for local community collaboration on certain types of projects.
12. Stewardship Contracting, Revised 2003 (P.L. 108-7, 16 U.S.C. 2104 Note). This Act provides the Forest Service and the Bureau of Land Management ten-year authority to enter into stewardship contracts and agreements to promote collaborative working relationships with local communities, improve land conditions, and help develop sustainable rural economies.

FSM 1900 - PLANNING
CHAPTER 1940 - INVENTORY, MONITORING, AND ASSESSMENT ACTIVITIES

13. Title 41, Code of Federal Regulations, Part 102-3 – Federal Advisory Committee Management Regulations (41 CFR part 102-3). This regulation defines policies, sets up minimum requirements, and provides guidance for the establishment, operation, administration, and duration of advisory committees subject to the Federal Advisory Committee Act, as amended.

Major authorities specific to resources include:

1. Organic Administration Act of June 4, 1897 (30 Stat. 34), as amended (16 U.S.C. 473 § § *et. seq.*). This Act authorizes the Secretary of Agriculture to establish regulations governing the occupancy and use of forests and to protect national forests from destruction. This Act contains the initial basic authority for watershed management on national forest lands. The purpose for the establishment of national forests, as stated in the Act, includes securing favorable conditions of water flows. The Act directs the completion of surveys to show distribution of the forests.

2. Antiquities Act of 1906 (P.L. 209, 34 Stat. 225, 16 U.S.C. 431-433), as amended. This Act permits the examination, excavation, and collection of objects of antiquity on Federal land to increase knowledge of such objects.

3. Weeks Law Act of March 1, 1911 (P.L. 61-435, Ch. 186, 36 Stat.961), as amended. Section six of the Act authorizes the Secretary of Agriculture to examine, locate, and purchase lands within the watersheds of navigable streams necessary to the regulation of the flow of navigable streams or for the production of timber.

4. Mineral Leasing Act, February 25, 1920 (P.L. 66-146, 41 Stat. 437), as amended. Section 8A of this Act authorizes the Secretary to conduct a comprehensive exploratory program to obtain sufficient data and information to evaluate the extent, location, and potential for developing the known recoverable coal resources within the coal lands subject to this chapter.

5. McSweeney-McNary Forest Research Act of 1928 (P.L. 70-466). This is enabling legislation for inventory, monitoring, and assessment activities in the Forest Service.

6. Fish and Wildlife Coordination Act of 1934 (Ch. 55, 48 Stat. 401, as amended; 16 U.S.C. 661, 662(a), 662(h), 663(c), 663(f)). This Act authorizes surveys and investigations of the wildlife of the public domain lands including lands and waters of interest therein acquired or controlled by any agency of the United States.

7. Federal Water Pollution Control Act of June 30, 1948 (P.L. 80-845; as amended; 33 U.S.C. 1251). This Act authorizes the conduct of investigations, surveys, and studies relating to the causes, effects, extent, prevention, reduction, and elimination of pollution.

FSM 1900 - PLANNING
CHAPTER 1940 - INVENTORY, MONITORING, AND ASSESSMENT ACTIVITIES

8. Watershed Protection and Flood Prevention Act of August 4, 1954 (P.L. 566), as amended (68 Stat. 666, 16 U.S.C. 1001; FSM 1021.2). This Act authorizes the Secretary of Agriculture to cooperate with the States and their political subdivisions and local public agencies to conduct surveys and investigations of watersheds and rivers to prepare plans for works of improvement for watershed protection and flood prevention.
9. Clean Air Act of July 14, 1955 (P.L. 84-159, 69 Stat. 322, as amended; 42 U.S.C. 7401 §§ *et. seq.*). This Act authorizes the conduct of investigations and surveys concerning any specific air pollution problem in cooperation with any air pollution control agency to recommend a solution.
10. Fish and Wildlife Act, August 8, 1956 (P.L. 84-1024, Ch. 1036, 70 Stat 1119, 16 U.S.C. 742a, d, e, i and j). This Act authorizes the Secretary to conduct investigations and prepare periodical reports related to production and flow of fish to market and biological requirements of fish and wildlife resources.
11. Multiple-Use Sustained-Yield Act of June 12, 1960. (16 U.S.C. 528-531; FMS 1021.2). The Secretary of Agriculture is directed to develop and administer the renewable surface resources of the national forests for multiple-use and sustained-yield of the several products and services obtained there from, with due consideration to the relative values of the various resources in particular areas and without impairment of the productivity of the land.
12. Joint Surveys of Watershed Acres Act of September 5, 1962 (P.L. 87-639, 76 Stat. 438; 16 U.S.C. 1009). This Act authorizes the Secretaries of the Army and Agriculture to make joint investigations and surveys of watershed areas to identify works needed for flood prevention and control.
13. Wilderness Act of 1964 (P.L. 88-577, 78 Stat. 890; 16 U.S.C. 1121 (note), 1131-1136). Section four of the Act requires each agency administering any area designated as wilderness shall be responsible for preserving the wilderness character of the area. To comply requires agencies to monitor and inventory wilderness attributes to identify and evaluate how selected actions and conditions related to wilderness character are changing. Administering agencies are to monitor compliance with the wilderness responsibility to preserve the wilderness character of an area designated as wilderness.
14. Federal Water Project Recreation Act of July 9, 1965. (16 U.S.C. 460). This Act provides uniform policies for investigating, planning, and constructing Federal water projects to protect and enhance where possible, recreation and fish.
15. Water Quality Act of 1965. (79 Stat. 903). This is an amendment to the Federal Water Pollution Control Act of July 9, 1956. It provides for the Federal Government to cooperate with State agencies or municipalities preventing or controlling pollution of waters over which they have jurisdiction (FSM 2542.3).

FSM 1900 - PLANNING
CHAPTER 1940 - INVENTORY, MONITORING, AND ASSESSMENT ACTIVITIES

16. Wild and Scenic Rivers Act of 1968 (P.L. 90-542, U.S.C. 1271-1287) as amended 1996. This Act establishes a National Wild and Scenic Rivers System for the protection of rivers with important scenic, recreational, fish and wildlife, or other values. Rivers are classified as wild, scenic, or recreational. The Act designates specific rivers for inclusion in the system and prescribes the methods and standards by which additional rivers may be added.

17. National Historic Preservation Act of 1966 (NHPA) (P.L. 89-665, as amended, P.L. 91-423, P.L. 94-422, P.L. 94-458 and P.L. 96-515; 80 Stat. 915 et seq., 16 U.S.C. 470 et seq.). This Act establishes a program for the preservation of historic properties, which includes, in part: (Section 110)(4) the requirement that the heads of all Federal agencies shall assume responsibility for the preservation of historic properties and establish a program to locate, inventory, and nominate historic properties eligible to the NRHP. The 1992 amendments to NHPA strengthen requirements for cooperation between Federal agencies and American Indian Tribes and Native Hawaiian Organizations. Implementing regulations are in 36 CFR Parts 60, 61, 63, 68, 73, 78, and 800.

18. Wild and Scenic Rivers Act of October 2, 1968 (P.L. 90-542) – Title 16, Conservation, Chapter 28. Section 1283). The head of any agency administering a component of the national wild and scenic rivers system shall cooperate with the Administrator, Environmental Protection Agency and with the appropriate State water pollution control agencies for the purpose of eliminating or diminishing the pollution of waters of the river.

19. National Environmental Policy Act of 1969 (NEPA) (P.L. 91-190, 83 Stat. 852; U.S.C. 4321 (Note), 4321, 4331-4335, 4341-4347). Section 102 directs that all agencies of the Federal Government shall utilize a systematic, interdisciplinary approach to insure the integrated use of the natural and social sciences and the environmental design arts in planning and in decision-making, which may have an impact on the human environment. See Forest Service Handbook (FSH) 1909.14-Resource Inventory Handbook, and FSH 1909.15-National Environmental Policy Act Handbook, for Council on Environmental Quality (CEQ) regulations implementing NEPA. See 40 CFR sections 1502.3 and 1505.3 for regulations on monitoring decisions.

20. Environmental Quality Improvement Act of April 3, 1970, as amended (P.L. 91- 224, Title II; P.L. No. 97-258, September 13, 1982; and P.L. No. 98-581, October 30, 1984. 42 USC § 4372). Section a...d(3) calls for reviewing the adequacy of existing systems for monitoring and predicting environmental changes in order to achieve effective coverage and efficient use of research facilities and other resources; and d(7) calls for collecting, collating, analyzing, and interpreting data and information on environmental quality, ecological research, and evaluation.

FSM 1900 - PLANNING
CHAPTER 1940 - INVENTORY, MONITORING, AND ASSESSMENT ACTIVITIES

21. Water Quality Improvement Act of 1970 (84 Stat. 91). Title I requires Federal agency compliance with water quality standards.
22. Wild Horses and Burros Protection Act of December 15, 1971 (P.L. 92-195, as amended; 16 U.S.C. 1331-1338, 1338a, 1339, 1340). This Act directs the Secretary of Interior to maintain a current inventory of wild free-roaming horses and burros on given areas of public lands, for the purpose of making determinations as to existence of overpopulation, and to determine appropriate management levels on these areas of public lands.
23. Federal Water Pollution Control Act amendments of October 18, 1972 (P.L. 92-500; 86 Stat. 816; 33 U.S.C. 1251 et. seq.). This amendment to the Clean Water Act has a primary objective to restore and maintain the chemical, physical, and biological integrity of the Nation's waters, including water quality that is both "fishable and swimmable." Federal and State agencies are directed to develop comprehensive programs for prevention, reduction, or elimination of water pollution.
24. Endangered Species Act of 1973 (ESA). (P.L. 93-205, 87 Stat. 884, as amended; 16 U.S.C. 1531-1536, 1538-1540). This act charges Federal agencies to utilize their authorities to achieve the purposes of the ESA by carrying out programs and activities for the conservation of endangered and threatened species and the ecosystems upon which they depend, and ensure that any action authorized, funded, or carried out by the agency is not likely to jeopardize the continued existence of any endangered, threatened or proposed species, or result in the destruction or adverse modification of designated critical habitat.
25. Forest and Rangeland Renewable Resources Planning Act of 1974 (P.L. 93-378, 88 Stat. 476, as amended; 16 U.S.C. 1601 (Note), 1600-1614). This Act directs the Secretary of Agriculture to periodically assess the national situation of the forest and rangeland resources, and to submit to Congress, at regular intervals, recommendations for long-range Forest Service programs essential to meet future resource needs. This assessment is called the Forest and Rangelands Renewable Resources Planning Act (RPA) assessment. The law requires a comprehensive and appropriately detailed inventory of all National Forest System lands and renewable resources be maintained on a continuing basis (section five).
26. Archeological and Historic Preservation Act of 1974 (AHPA) (P.L. 86-523, as amended, P.L. 93-291; 88 Stat. 852 et seq., 16 U.S.C. 469-469c). Requires Federal agencies to preserve historic archaeological data, which may otherwise be lost or destroyed as a result of "any Federal construction project or federally licensed activity or program."

FSM 1900 - PLANNING
CHAPTER 1940 - INVENTORY, MONITORING, AND ASSESSMENT ACTIVITIES

27. Safe Drinking Water Act of December 16, 1974 (P.L. 93-523). This Act and all applicable amendments provide for safe drinking water and direct the Environmental Protection Agency (EPA) to establish national drinking water regulations. The Act directs the identification of protection areas, and the preparation of impacts on quality and quantity of ground water, requiring inventory of source areas.

28. Federal Noxious Weed Act of 1974 (January 3, 1975, P.L. 93-629, as amended, 81 Stat. 2148; 7 U.S.C. 2801 (note), 2801-2814). This Act directs the management of undesirable plants on Federal lands, requiring Federal agencies to establish an undesirable plants management program. Departmental policy requires providing periodic land and aquatic resource inventories compatible among agencies to identify and classify noxious weeds and their infestations.

29. National Forest Management Act of 1976 (P.L. 94-588, 90 Stat. 2949, as amended; 16 U.S.C. 472a, 476, 500, 513-516, 518, 521b, 528 (Note), 576b, 594-2 (Note), 1600 (Note), 1601 (Note), 1600-1602, 1604, 1606, 1608-1614). Sections two 2, 6(f)(3), and 6(g)(2), emphasize the stipulations of the Renewable Resources Planning Act of 1974. The Act also requires that the Forest Service establish quantitative and qualitative standards and guidelines for land and resource planning and management. The Act directs the Forest Service to "insure research on and (based upon continuous monitoring and assessment in the field) evaluation of the effects of each management system...."

30. Federal Land Policy and Management Act of 1976 (P.L. 94-579, 90 Stat. 2743, as amended; 43 U.S.C. 1701 (Note), 1701, 1702, 1712, 1714-1717, 1719, 1732b, 1740, 1744, 1745, 1751-1753, 1761, 1763-1771, 1781, 1782; 7 U.S.C. 1212a; 16 U.S.C. 478a, 1338a). This Act requires that public lands and their resources be periodically and systematically inventoried, and that an evaluation of the current natural resource use and values be made of adjacent public and nonpublic land.

31. Soil and Water Conservation Act of 1977 (P.L. 95-192, 91 Stat. 1407; 16 U.S.C. 2001-2009). This Act authorizes the Secretary of Agriculture to obtain and maintain information of the current status of soil, water, and related resources. The Act further requires an integrated system capable of using combinations of resource data to determine the quality and capabilities for alternative uses of the resource base and to identify areas of local, State, and national concerns.

32. Clean Water Act of 1977 (December 27, 1977, 91 Stat. 1566, P.L. 95-217) and the 1977 amendments, December 1977, NO. 95-12. Title 33 Navigation and Navigable Waters, Chapter 26 Water Pollution Prevention and Control. Section 1256 prohibits grants to States without established water quality monitoring procedures. Section 1271

FSM 1900 - PLANNING
CHAPTER 1940 - INVENTORY, MONITORING, AND ASSESSMENT ACTIVITIES

directs the Administrator and Secretary to conduct a program of monitoring and assessing aquatic sediment quality, and to identify and assess sources, extent and effect of aquatic sediment pollutants. Section 1288 directs the development of Best Management Practices programs

33. Clean Air Act Amendments of 1977 (P.L. 95-95, 91 Stat. 685, as amended; 42 U.S.C. 7401, 7418, 7470, 7472, 7474, 7475, 7491, 7506, and 7602). Sections 162 and 165 require a classification of monitoring of Federal lands for air quality.

34. Forest and Rangeland Renewable Resources Research Act of 1978 (P.L. 95-307, 92 Stat. 353, as amended; 16 U.S.C. 1600 (Note), 1641-1647). This Act directs the Secretary of Agriculture to make and keep current a comprehensive survey and analysis of the conditions and requirements of the forests and rangelands of the United States.

35. Public Rangelands Improvement Act of 1978 (P.L. 95-514, 92 Stat. 1806; 43 U.S.C. 1752-1753, 1901-1908; 16 U.S.C. 1333(b)). Section four directs the Secretary of Agriculture to maintain a current inventory of range conditions and trends of rangeland conditions on the public rangelands.

36. Cooperative Forestry Assistance Act of 1978 (P.L. 95-313, 92 Stat. 365; 16 U.S.C. 2101) as amended 1990. Section five of this Act sets forth the basic Federal authority for forest insect and disease management and assigns the primary Federal authority for insect and disease control to the Secretary of Agriculture. Section eight of the Act directs the Secretary to conduct surveys to detect and appraise insect infestations, disease conditions and man-made stresses, and establish a monitoring system on federal lands and in cooperation with state foresters on non-federal lands.

37. Archaeological Resources Protection Act of 1979 (ARPA) (P.L. 96-95, as amended, P.L. 100-555, P.L. 100-558; 93 Stat. 721 et seq., 16 U.S.C. 470 et seq.). Directs the Secretary of Agriculture to survey lands under Department control to determine the nature and extent of archaeological resources on those lands.

38. Energy Security Act of 1980 (P.L. 96-294, 94 Stat. 611; 42 U.S.C. 8801 (Note), 8854, 8855 Sec. 261). This Act authorizes the availability of timber resources of the National Forest System for use by biomass energy projects.

39. Fish and Wildlife Conservation Act of September 29, 1980 (P.L. 96-366, 96 Stat. 1322, 16 U.S.C. 2901 (note), 2901-2904; 16 U.S.C. 2905-2911). This Act encourages States to develop a plan for the conservation of fish and wildlife, particularly those species indigenous to the State. The Act recommends these plans provide for an inventory of the nongame fish and wildlife and provide for the monitoring, on a regular basis, of the plan species and the effectiveness of conservation actions.

FSM 1900 - PLANNING
CHAPTER 1940 - INVENTORY, MONITORING, AND ASSESSMENT ACTIVITIES

40. Food Security Act of 1985 (P.L. 99-198, 7 U.S.C. 2276). This Act provides for security of data collected by Forest Inventory and Analysis (FIA) on private lands. The Act exempts FIA data from FOIA requests and limits disclosure of information to the public, unless such information has been transformed into statistical or aggregate form that does not allow the identification of the person who supplied particular information.
41. Forest Ecosystems and Atmospheric Pollution Research Act of 1988 (P.L. 100-521, 102 Stat 2601; 16 U.S.C. 1642 (Note)). Section three directs the Forest Service to increase the frequency of forest inventories in matters that relate to atmospheric pollution and conduct such surveys as are necessary to monitor long-term trends in the health and productivity of domestic forest ecosystems. This is also enabling legislation for the Forest Health Monitoring (FHM) program.
42. Native American Grave Protection and Repatriation Act of November 16, 1990 (NAGPRA) (P.L. 101-601, 25 U.S.C. 3001-3013, 104 Stat. 3048-3058). This Act addresses the rights of lineal descendants and members of Indian Tribes, Alaska Native, and native Hawaiian organizations to retain certain human remains and precisely defined cultural items. These items include human remains from graves associated with a particular Tribal group or individual offerings or artifacts associated with burials, and important religious items of cultural and spiritual importance to Tribal groups.
43. Agriculture Research, Extension and Education Reform Act of 1998 (P.L. 105-185, 16 USC 1642(e)). Mandates an annual measurement of 20% of all plots on all forest land, with a nationally consistent, core set of measurements and analytical products. State reports are completed every five years. Statute also integrated the plot networks of FIA and FHM into a single program.
44. Healthy Forest Restoration Act of 2003 (117 Stat 1887, 16 U.S.C. 6501 (note)). Title VI requires the Secretary of Agriculture to establish an “early warning system” for potential catastrophic threats to forests (including insect, disease, invasive species, fire, weather-related risks, and other episodic events) to isolate and treat a threat before it gets out of control.

1940.12 - Executive Orders

1. Executive Order 11991, (May 24, 1977) (Amended Executive Order 11514 of March 5, 1970). Directs Federal agencies to monitor, evaluate, and control, on a continuing basis, their agencies’ activities so as to protect and enhance the quality of the environment.
2. Executive Order 11990 (May 24, 1977), (42 FR 26961, 3 CFR, 1977). Requires each agency to take action to minimize destruction, loss, or degradation of wetlands, and to preserve and enhance the natural and beneficial values of wetlands.

FSM 1900 - PLANNING
CHAPTER 1940 - INVENTORY, MONITORING, AND ASSESSMENT ACTIVITIES

3. Executive Order 12898, February 11, 1994. Mandates agency responsibility in achieving environmental justice as part of its' mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations (Section 6-601). The head of each Federal agency shall be responsible for ensuring compliance with and monitoring of this order.
4. Executive Memorandum of April 29, 1994. Mandates government-to-government relations with federally recognized American Indian Tribes by each executive department and agency. Consultation shall include, prior to actions affecting tribal governments, removal of any procedural impediments to working with tribal governments to work with other Federal departments and agencies to accomplish the goals of the memorandum, and to apply the requirements of E.O. 12875 and 12866.
5. Executive Order 12962, June 7, 1995. Establishes the National Recreational Fisheries Coordination Council and directs the Council to develop a Recreational Fishery Resources Conservation Plan. This plan details actions to be taken by identified Federal agencies and includes a method of ensuring agency accountability and comprehensive mechanism to evaluate achievements. The plan will, to the extent practicable, be integrated with existing plans and programs, reduce duplication, and will include recommended actions for cooperation with States, Tribes, conservation groups, and the recreational fisheries community.
6. Executive Order 13007, May 24, 1996. Each executive branch agency with statutory or administrative responsibility for the management of Federal lands will accommodate access to and ceremonial use of, Indian sacred sites by Indian religious practitioners, and to avoid adversely affecting the physical integrity of these sacred sites.
7. Executive Order 12088, (October 13, 1978, amended Jan. 23, 1987, EO 12580). Establishes agency responsibility for ensuring prevention, control, and abatement of environmental pollution with respect to Federal facilities and activities under the control of the agency.
8. Executive Order 12866 – Regulatory Planning and Review (58 FR 190, p. 51,735, Oct. 4, 1993). Requires agencies to demonstrate a compelling public need prior to promulgating regulations, to base regulatory decisions on the best reasonably obtainable scientific, technical, economic, or other information, and to consider to the extent reasonable, the degree and nature of risks posed by various substances or activities within its jurisdiction.
9. Executive Order 12906 – Coordinating Data Acquisition and Access (59 FR 71, p. 17671, April 13, 1994) as amended by Executive Order 13286 (68 Fed Reg 43, p. 10619, March 5, 2003): Directs Federal agencies to document in a standardized manner all new geospatial data collected or produced. Directs the Federal Geographic Data Committee

FSM 1900 - PLANNING
CHAPTER 1940 - INVENTORY, MONITORING, AND ASSESSMENT ACTIVITIES

(FGDC) to establish documentation standards for geospatial data, and directs Federal agencies to provide public access to geospatial data, to the extent permitted by law and current policies, according to procedures established in conjunction with the FGDC.

10. Executive Order 13352 – Facilitation of Cooperative Conservation ((69 FR 167, 52989, August 30, 2004). Directs the Departments of the Interior, Agriculture, Commerce, Defense, and the Environmental Protection Agency, to implement laws relating to the environment and natural resources in a way that promotes cooperative conservation, with an emphasis on appropriate inclusion of local participation in Federal decisionmaking in accordance with their respective agency missions, policies, and regulations.

11. Executive Order 13423 – Strengthening Federal Environmental, Energy, and Transportation Management (January 26, 2007). Directs Federal agencies to conduct their environmental, transportation, and energy-related activities in support of their respective missions in an environmentally, economically and fiscally sound, integrated, continuously improving, efficient, and sustainable manner, applying environmental management systems (EMS) at all appropriate agency levels to ensure that EMS is the primary management approach for addressing environmental aspects of internal agency operations.

12. Executive Order 13450 – Improving Government Program Performance (November 13, 2007). Requires the head of agencies establish clear annual and long-term goals defined by objectively measurable outcomes for achieving them. Agencies must make these results available to the public.

1940.13 - Regulations

1. Title 36, Code of Federal Regulations, Section 200. Describes the agency functions towards which inventory, monitoring, and assessment activities are directed.
2. Title 36, Code of Federal Regulations, Section 200. Establishes functions and procedures for issuing administrative direction.
3. Title 36, Code of Federal Regulations, Section 212. Establishes that responsible officials at local units, shall monitor the effects of motor vehicles on the environment, consistent with the applicable land management plan.
4. Title 36, Code of Federal Regulations, Section 219. Establishes the evaluation and monitoring requirements associated with land management planning, including, establishing three types of evaluations, roles for inventory and assessment activities in those evaluations, the expected commensurability between evaluations and expected risks or benefits, and requiring a plan monitoring program that addresses four specific purposes.

FSM 1900 - PLANNING
CHAPTER 1940 - INVENTORY, MONITORING, AND ASSESSMENT ACTIVITIES

5. Title 36, Code of Federal Regulations, Section 222. Requires analysis of range allotments and that such analyses occur jointly with affected individuals and groups.
6. Office of Management and Budget Final Government-wide Information Quality Guidelines, February 1, 2002. Implements section 515 of the Treasury and General Appropriations Act for fiscal year 2001 (P.L. 106-554) by requiring each agency to establish implementing guidelines for ensuring and maximizing the quality, objectivity, utility, and integrity of information, including statistical information, disseminated by Federal agencies.
7. Memorandum M-05-03, Office of Management and Budget. Establishes that important scientific information shall be peer reviewed by qualified specialists before dissemination by the Federal Government, including before disseminating influential scientific information or results from scientific assessments, and that each agency shall have the discretion to select a particular peer review mechanism based on benefits and costs of the review options, including the option of relying on existing findings of the National Academy of Sciences or on findings published in a refereed journal.

1940.2 - Objectives

The objectives for managing inventory, monitoring, and assessment activities are to:

1. Provide the information necessary for achieving the agency's mission, goals, objectives, and business needs that fulfills information quality guidelines for objectivity, utility, and integrity; and
2. Support an adaptive land management process that includes social, economic, and ecological evaluations.
3. Obtain order, consistency, and efficiency across the agency.

1940.3 - Policy

Inventory, monitoring, and assessment activities shall:

1. Be coordinated through a national integrated program planning process that addresses information needs related to all Agency business requirements;
2. Use a standards-based approach and framework for information management and related business operations; and
3. Foster and realize opportunities for collaboration, cooperation, and coordination across Forest Service deputy area programs and with agency partners, including the public; local, state, and other federal agencies; and non-governmental organizations.

FSM 1900 - PLANNING
CHAPTER 1940 - INVENTORY, MONITORING, AND ASSESSMENT ACTIVITIES

1940.4 - Responsibility

1940.41 - Deputy Chiefs

The Deputy Chiefs shall:

1. Ensure Agency compliance with all authorities and policies governing inventory, monitoring, and assessment activities, including programs such as National Forest System Planning Forest Service Manual (FSM) 1900, Forest Inventory and Analysis (FIA), FSM 4810, Forest Health Protection (FHP) FSM 3400, Forest Health Monitoring (FHM) FSM 3400, and Resource Planning Act (RPA) Assessment, FSM 1910, and
2. Sponsor and approve a national integrated program planning process for inventory, monitoring, and assessment activities.

1940.42 - Information Management Council

The Information Management Council (IMC) is a body chartered by the Agency's Information Resources Board representing all Washington Office deputy areas. The Council's purpose is to advise and assist the Forest Service Chief Information Officer in establishing and carrying out an agency information management program. The IMC represents the business interests of the regional foresters, station directors, and Washington Office staff directors for all significant Forest Service information management decisions. The IMC works to ensure that appropriate controls and procedures are in place and operating effectively so that information collected and managed by the agency is well aligned with what is needed to conduct business. The IMC conveys to the IRB where information resources investment emphases need to be placed for addressing agency priorities.

The Information Management Council's responsibilities are to:

1. Develop information management recommendations to support integrated policy, direction, and guidance of inventory, monitoring, and assessment activities;
2. Develop and maintain a national integrated program planning process for inventory, monitoring, and assessment information management activities; and
3. Establish a standards-based approach and information management framework for organizing inventory, monitoring, and assessment information and activities.

1940.43 - All Agency Line Officers

1. Ensure the goals, objectives, and needs of their programs and areas of responsibility are adequately addressed in the national integrated program planning process.

FSM 1900 - PLANNING
CHAPTER 1940 - INVENTORY, MONITORING, AND ASSESSMENT ACTIVITIES

2. Provide the leadership and resources needed to implement the results of the national integrated program planning process.
3. Ensure the standards-based approach and information management framework is implemented in their programs and areas of responsibility.

1940.44 - Washington Office Staff Directors

Washington Office staff directors shall work with regions, stations, and areas to:

1. Commission and guide the development and maintenance of the corporate databases and applications needed to meet the objectives and policies of this chapter, working in conjunction with Resource Information Managers and the Chief Information Officer;
2. Develop policy, direction, and guidance related to inventory, monitoring, and assessment activities in their program area needed to meet the objectives and policies of this chapter;
3. Assist the Information Management Council in developing cross deputy area policy, direction, and guidance recommendations for inventory, monitoring, and assessment information management activities; and
4. Provide the chair and members of the Information Management Council.

1940.5 - Definitions

Adaptive Management. A system of management practices based on clearly identified outcomes and monitoring to determine if management actions are meeting desired outcomes, and if not, to facilitate management changes that will best ensure that outcomes are met or reevaluated. Adaptive management stems from the recognition that knowledge about natural resource systems is sometimes uncertain.

Activity, inventory, monitoring, and assessment. Organized dependent and independent tasks designed to achieve a specific purpose or objective within a defined period of time to inventory, monitor, or assess social, economic, ecological, and/or physical resources.

Assessment. An analysis and interpretation of the social, economic, or ecological characteristics of an area using scientific principles to describe existing conditions as they affect sustainability. Assessments provide the foundation of independent information upon which to build conservation strategies and management decisions; and against which alternative approaches can be evaluated and modified.

FSM 1900 - PLANNING
CHAPTER 1940 - INVENTORY, MONITORING, AND ASSESSMENT ACTIVITIES

Business Requirements. A business need identified as necessary for successful achievement of business goals/objectives, (including strategic, tactical, legal, or operational objectives). Business requirements may be represented in a variety of contexts and are most often defined in response to establishing requirements for processes, compliance to business direction, and to identification of information technology functionality requirements.

Collaboration. People working together to share knowledge and resources to describe and achieve desired conditions for National Forest System (NFS) lands and for associated social, ecological, and economic systems in a plan area. Collaboration applies throughout land management, encompasses a wide range of external and internal relationships, and entails formal and informal processes.

Corporate Database. Enterprise-wide information management systems using a common information structure and processes to store, maintain and access shared automated inventory, monitoring, and assessment data.

Evaluation. An appraisal and study of social, economic, and ecological conditions and trends relevant to a unit. The analysis of monitoring data that produces information needed to answer specific monitoring questions. Evaluation may include comparing monitoring results with a predetermined guideline or expected norm that may lead to recommendations for changes in management, a land management plan, or monitoring plan. Evaluations provide an updated compilation of information for use in environmental analysis of future project and activity decisions.

Information. Information is the result of processing, manipulating, and organizing data in a way that adds to the knowledge of the receiver. In other words, it is the context in which data is taken.

Information Management Council. The IMC is an advisory and assistance board to the Information Resources Board (IRB) and the Chief Information Officer (CIO) in establishing and implementing the agency's information management program.

Information Management. The process by which an organization efficiently plans, collects, organizes, uses, controls, disseminates and disposes of its inventory, monitoring, and assessment information, and through which it ensures that the value of that information is identified and exploited to the fullest extent.

FSM 1900 - PLANNING
CHAPTER 1940 - INVENTORY, MONITORING, AND ASSESSMENT ACTIVITIES

Information Needs Assessment. A process through which the types of information needed to accomplish an inventory, monitoring, or assessment activity, and the types of data needed to support that information are identified. Information needs assessments are used as a tool to identify the data and information necessary to support resource management decisions, and the best methods of collecting and maintaining resource data and displaying needed information.

Information Resources Board (IRB). The IRB assists the Agency and the Chief Information Officer in strategic planning for information resources and in complying with requirements of the Clinger-Cohen Act of 1996 and the Department of Agriculture's capital planning and investment control process (CPIC). The Board coordinates, as appropriate with other boards in the Department of Agriculture, other agencies, and field units of the Forest Service concerned with information technology and information asset governance.

Inventory. To survey an area or entity for determination of such data as contents, condition, or value, for specific purposes such as planning, evaluation, or management. An inventory activity may include an information needs assessment; planning and scheduling; data collection, classification, mapping, data entry, storage and maintenance; product development; evaluation; and reporting phases.

Monitoring. The collection and analysis of repeated observations or measurements to evaluate changes in condition and progress toward meeting a resource or management objective. A monitoring activity may include an information needs assessment; planning and scheduling; data collection, classification, mapping, data entry, storage and maintenance; product development; evaluation; and reporting phases.

National Integrated Program Planning Process. A strategic planning process to be facilitated by the Information Management Council. The integrated program process could include documenting priorities for resource inventories, monitoring, and assessments; core business requirements and information needs; overall status and schedule for priority work; and the resources needed to improve the effectiveness and efficiency of an integrated program and to accomplish agency objectives.

Protocol. Repeatable instructions for inventory, monitoring, and assessment activities for such tasks as assessing information needs, and collecting, mapping, classifying, analyzing and evaluating, and applying information.

FSM 1900 - PLANNING
CHAPTER 1940 - INVENTORY, MONITORING, AND ASSESSMENT ACTIVITIES

Quality Assurance. The total integrated program for ensuring that the uncertainties inherent in inventory and monitoring data are known and do not exceed acceptable magnitudes, within a stated level of confidence. Quality assurance encompasses the plans, specifications, and policies affecting the collection, processing, and reporting of data. It is the system of activities designed to provide officials with independent assurance that quality control is being effectively implemented uniformly throughout the inventory and monitoring programs.

Quality Control. The routine application of prescribed field and office procedures to reduce random and systematic errors and ensure that data are generated within known and acceptable performance limits. Quality control involves use of qualified personnel, reliable equipment and supplies, training of personnel, and strict adherence to service-wide standard operating procedures for tasks such as information needs assessments, establishment of standards and methods, data collection, data processing, classification, mapping, analysis, and dissemination.

Standards. Criteria for desirable or tolerable conditions, or a statement or demonstration representing conditions of a job done properly. Standards define how well something should be done, rather than what should be done.

Standards-based approach and information management framework. An administrative structure for managing inventory, monitoring, and assessment information based upon explicit standards of performance and operation, explicitly standardized tools, and clear standards of success. Such a framework could include a transparent Quality Assurance System, a basic Information Needs Assessment process, an explicit National Protocol Governance System, or an Agency-wide Monitoring and Evaluation Framework that specifies agency priorities. It also could include Technology Transfer and Knowledge Transfer processes that facilitate leveraging work for multiple purposes.