

**Forest Service Manual
National Headquarters - Washington Office
Washington, DC**

**Forest Service Manual 1300 – Management
Chapter 1340 - Management Improvement Administration**

Amendment: 1300-2021-3

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Superseded Directive: 1340, Amendment 1300-2021-2, August 2, 2021

Approved by: Antoine L. Dixon, Deputy Chief, Business Operations

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Responsible Staff:

Explanation of changes: Following is an explanation of the changes throughout the directive by section.

1343: Removes the Employee Suggestion Program in its entirety as it is no longer applicable and reserves the section. Section 1343 makes reference to FSH 6109.41 which has been retired.

August 2, 2021 Digest (Alexander L. Friend):

1345: Updates language to match definition in Executive Order 10086 and assignment language required by United States Department of Agriculture (USDA) Office of General Counsel (OGC) Patent Group.

1345.02: Corrected to list Forest Services authorities for the patent program.

1345.03: Updated to reflect the patent program works within the guidelines of Federal law.

1345.04a(1.): Updated to follow Executive Order 10086.

1345.04a(2.): Corrected to USDA licensing policy, approved under Federal law.

1345.04c(2.): Corrected to current patent program policy.

1345.05: (Employee-Inventor) Updated to match 1345 and Executive Order 10086.

1345.05: (Patent & Patent License) minor changes to language to match Federal licensing law.

1345.1: Updates language to match definition in Executive Order 10086 and to match 1345.

1345.12: Updated to follow Federal Patent law and USDA OGC policy.

1345.2: Updated to USDA OGC and Forest Service patent program policy.

1345.3: updated to current USDA and Forest Service patent program policies.

1345.4(1),(2)7(3), 1345.41: removed as outdated policies and laws.

March 15, 2021 Digest (Tina J. Terrell):

1340: Revises dollar value threshold for requiring a Value Analysis. Removes references to specific dollar values and adds reference to values identified in OMB Circular A-131. Removes reference to specific dollar threshold for requiring value engineering clauses in contracts and replaces with reference to current simplified acquisition threshold.

1349.11a: Replaces \$1 million with reference to dollar limits set in OMB Circular A-131.

1349.3: Removes reference to typical cost range for a VA study and modifies reference to length of time to conduct a study.

1349.3: Replaces \$100,000 with reference to simplified acquisition threshold.

1349.4: Makes minor technical and editorial corrections. Removes most dollar threshold references, generalizes costs and complexity, and adds reference to the current publication of OMB Circular A-131.

1349.4: Exhibit 01 – Replaces dollar values with qualitative description of high, medium, or low.

1349.6: Replaces \$1 million with reference to dollar limits set in OMB Circular A-131.

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1340.1 - Authority

Title 5, United States Code, section 305 (5 U.S.C. 305) and 5 U.S.C. 4501-4513 contain the authority for management improvement in Federal agencies. Department of Agriculture management improvement direction is contained in Secretary's Memorandums 1140-1 and 1140-3 and in Departmental Regulation 1140-1.

1340.2 - Objectives

1. Increase the effectiveness and/or efficiency of Forest Service operations.
2. Promote a high level of consciousness about reducing costs while maintaining an acceptable level of quality of programs and service.
3. Allocate staff time to highest priority management improvement efforts; promote the best use of available analytical skills.
4. Eliminate duplication of effort.
5. Provide a mechanism for widespread access to and use of results.

1340.3 - Policy

It is the policy of the Forest Service to:

1. Conduct only essential activities.
2. Accomplish its mission at the lowest cost consistent with program needs.
3. Evaluate program effectiveness in meeting public needs and develop more effective and efficient programs to meet these needs.
4. Develop and implement management policies that maintain an adequate quality and quantity level of goods and services required to meet public program objectives.

1340.4 - Responsibility

Management improvement applies to all activities and procedures throughout the Forest Service.

1340.41 - Line Officers

All line officers are responsible for developing and implementing effective management improvement as outlined in this chapter. Specifically, their responsibilities include:

1. Identifying basic management improvement problems; planning and coordinating accomplishment action.
2. Effectively applying the principles of organization planning and management (FSM 1220).
3. Setting up systems and procedures required to carry out management improvements.
4. Providing a systematic method for obtaining and implementing employee ideas; and identifying, evaluating, and recognizing individual and group accomplishments.
5. Stimulating interest and participation of all employees in suggesting management improvements.
6. Recording, reporting, validating, and implementing cost reduction and operational improvements.

1340.42 - Director, Human Resources Management, Washington Office

The Director, Human Resources Management is responsible for providing overall direction for the Forest Service Management Improvement Program and for formulating policies, standards, and procedures. This includes searching for, pilot testing, and disseminating new managerial technology and providing staff assistance in conducting management studies. Further, the Human Resources Management Staff gives general direction and leadership to all aspects of personnel management and productivity measurement, cost effectiveness, and cost reduction.

1343 – (Reserved)

1345 - Patents

Patents are the granting of property rights to an “Invention” made by Forest Service employees (1) during working hours, or (2) with a contribution by the Government of facilities, equipment, materials, funds, or information, or of time or services of other Government employees on official duty, or (3) which bear a direct relation to or are made in consequence of the official duties of the inventor. Rights in patents are assigned to the United States, as represented by the Secretary of Agriculture.

1345.01 - Authority

The authority for domestic and foreign rights in inventions is found in Executive Order 10096, dated January 23, 1950 (E.O. 10096); Title 37, Code of Federal Regulations, Parts 100 and 101; and Departmental Regulation 5700-1.

1345.02 - Objective

To provide a process that is in compliance with the Stevenson-Wydler Technology Innovation Act of 1980, Public Law 96-480, as amended (codified at title 15 of the United States Code (U.S.C.), Section 3701 et seq.) and the Technology Transfer Act 15 U.S.C. 3710 by which Forest Service employees and their inventions are recognized, Federal technologies are protected, and the inventions are brought to practical applications.

1345.03 - Policy

To ensure that all inventions and the patent process comply with the policies and criteria established by law.

1345.04 - Responsibility

1345.04a - Employees-Inventors

Employee-inventors are responsible for:

1. Reporting all technologies that have the potential for intellectual property protection (invention reporting) to the USDA Forest Service patent program in accordance with section 1345 above.
2. Cooperating and providing technical information to licensees if part of a licensing agreement.

1345.04b – Deputy Chief for Research and Development, Washington Office

The Washington Office of the Deputy Chief for Research and Development is responsible for the overall management of the patent program.

1345.04c - Regional Foresters, Station Directors, and Institute Director

The Regional Foresters, Station Directors, and Institute Director are responsible for:

1. Ensuring that employee-inventors meet their responsibilities (FSM 1345.04a).
2. Working with inventor's supervisor on approving inventions for their assigned areas of responsibility.

1345.05 - Definitions

Disclosure. Any report or description of an invention listed in publications, such as technical journals or newspapers; in abstracts distributed at professional society meetings; and

in microfilm which is available to the public. Also, the actual use of an invention, other than experimental, constitutes a disclosure.

Employee-Inventor. An invention discovered by Forest Service employees (1) during working hours, or (2) with a contribution by the Government of facilities, equipment, materials, funds, or information, or of time or services of other Government employees on official duty, or (3) which bear a direct relation to or are made in consequence of the official duties of the inventor.

Invention. Any art, machine manufacture, design, composition of matter, software, or process, or any new or useful improvement thereof, or any variety of plant which is, or may be, patentable under the patent laws of the United States.

Patent. A means of protection (granting of property rights) for inventions (with the exception of copyrights) which includes design patents, plant patents, and plant-variety certificates.

Patent License. A license which grants the licensee the right to make, use, or sell the patented invention within a defined scope.

1345.1 - Ownership of Inventions

Both domestic and foreign rights of ownership are determined by E.O. 10096. Specifically, the Government shall obtain the entire right, title, and interest in and to all inventions made by any Government employee under any of the following conditions:

(1) during working hours,

(2) with a contribution by the Government of facilities, equipment, materials, funds, or information, or of time or services of other Government employees on official duty, or

(3) which bear a direct relation to or are made in consequence of the official duties of the inventor.

1345.11 - Ownership Under Grants, Cooperative Agreements, and Contracts

See FSH 1509.11 for specific instructions on patent ownership in grants and cooperative agreements.

1345.12 - Claims of Ownership

Ownership follows inventorship in accordance to U.S. patent law. Any questions about inventorship shall be determined by an outside law firm based on research data and lab notebooks.

1345.2 - Foreign Rights

The USDA generally does not file for foreign rights. Filing of foreign rights is handled at the request and funding support of a licensee. USDA Forest Service will file for foreign rights if justified. Primary foreign protection provided by USDA Forest Service is the filing of a Patent Cooperation Treaty (PCT) application allowing 18 months for foreign filing decisions.

1345.3 - Licensing of Government-Owned Inventions

The Administrator of Agricultural Research Service administers the USDA patent license program. The USDA Forest Service approves, disapproves, revokes, and determines financial terms for patent licenses to manufacturers and others to produce USDA Forest Service inventions (41 CFR 101.4). The USDA Forest Service also develops and provides annual reporting of technology transfer activities to the Department of Commerce, National Technical Information Service (NTIS).

1345.5 - Payment of Fees

The Washington Office of the Deputy Chief for Research and Development handles all charges for contracted work by patent attorneys and for fees charged by the U.S. Patent and Trademark Office.

1348 - Management Studies and Analytical Techniques

A management study is a critical review and analysis of any resource or support program, activity, system, or procedure.

1348.1 - Reporting and Distributing Results

Document findings and recommendations in a written report when a study is completed.

1348.2 - Value Analysis

Field units may issue direction at this code for implementing and managing a value analysis program.

1349 - Value Management

1349.01 - Authority

1. Public Law 104-106, Section 4306 "Value Engineering for Federal Agencies." Requires that agencies establish and maintain cost effective value engineering procedures and processes.

2. OMB Circular A-131 “Value Engineering.” Requires Federal agencies to use value engineering (VE) as a management tool, where appropriate, to reduce program and acquisition costs.

3. USDA Departmental Regulation DR-5048-001. Provides that each Departmental agency shall follow the guidance contained in OMB Circular No. A-131.

4. Federal Acquisition Regulations, Title 48, Code of Federal Regulations, Parts 48 & 52. Describes the policy and procedures for using and administering value engineering techniques in contracts.

1349.02 - Objectives

1. Implement the value management (VM) authorities (FSM 1349.01) and actions required to develop and maintain a productive VM program.

2. Ensure that products, services, procedures, or processes that are performed or acquired in agency work represent the lowest life cycle cost, improve quality, and meet or exceed the primary objectives of the product, service, procedure, or process.

3. Increase productivity, innovation, communication, and personal growth, and foster teamwork within the organization through the use of VM principles.

4. Establish VM procedures and guidelines to ensure application of the most cost effective and functional approaches toward executing VM agency wide.

1349.03 - Policy

Develop and maintain an agency VM program according to the authorities specified in FSM 1349.01. Capital investment projects meeting the minimum criteria identified in FSM 1349.11a must have completed a value analysis (VA) study performed during the planning and/or design phase of the project.

1349.04 - Responsibility

1349.04a - Chief, Deputy Chiefs, and National Washington Office Staff Directors

Demonstrate support of the VM program to ensure line officer adoption and total commitment to execute an efficient and effective program.

1349.04b - Director of Engineering

Management and oversight of the VM program is assigned to the Washington Office Engineering staff. The director of engineering is responsible for:

1. Developing National standards and policy.

2. Establishing National goals and objectives.
3. Reporting VM results, recommendations, and savings annually to the Office of Management and Budget (OMB) and Congress.
4. Monitoring Regions and Stations for progress and execution.
5. Maintaining a current National list of trained VM team leaders and team members.
6. Developing and maintaining a VM internet website and other tools to assist field personnel in performing VA studies.

1349.04c - Regional Foresters, Station Directors

Regions and Stations are responsible for the following:

1. Ensuring that VA studies are accomplished on all appropriate capital investment projects and according to National standards.
2. Preparing and maintaining Region/Station annual VM action plans and submitting them to the Washington Office (WO) VM program manager.
3. Reporting VM program results annually to the WO.
4. Ensuring that a sufficiently trained cadre of VM team leaders and team members are available to accomplish the expected Region/Station workload.
5. Establishing a VM coordinator to manage the VM program, to communicate with the National VM program manager, determine training needs, and to monitor studies completed by field units.
6. Approving/disapproving waivers when not performing VA studies on required projects. The waiver approval must be defensible according to established guidelines; this approval authority can be delegated to the Regional Director responsible for the VM program.

1349.04d - Forest Supervisors, Research Work Unit Leaders, and Experimental Forest Leaders

Forest Supervisors, Research Work Unit Leader, and Experimental Forest Leaders are responsible for the following:

1. Executing VA studies on appropriate projects according to National and Region/Station direction and standards.
2. Reporting VA study recommendations and the status of implementation to Regions and Stations.

3. Implementing accepted VA study recommendations on projects.
4. Approving documentation of recommendations in VA studies not implemented for reporting to Regional/Station Value Management Coordinators.

1349.05 - Definitions

Capital Investment Projects (CIP). All resource and information management/technology projects involving expenditure of federal funds. Types of projects include: software development; road, facility, bridge, or dam construction and reconstruction; maintenance and repair projects; watershed restoration projects; wildlife and fisheries enhancement projects; and capital leases.

Certified Value Specialist (CVS). A person formally trained, experienced, and certified by Society of American Value Engineer International (SAVE International) in the science and application of VM. Information about SAVE International can be found on the Internet at <http://www.value-eng.org>

Module 1 VM Training. A basic 40-hour training course for new members serving on VM teams. Personnel serving as team members on VA studies should have this minimum level of VM training. The course can be taken from contractors certified to perform the training or from internal agency experts skilled in performing and teaching the VM process.

Value Analysis (VA). An analysis, or study, of the functions of a program, projects, system, product, equipment, building, facility, service, or supply of an executive agency, performed by qualified agency or contract personnel, directed at improving performance, reliability, quality, safety, and life cycle costs. VA is a study process that seeks to identify the “best value” of a product, process, or function. The terms value analysis, value engineering (VE), value planning, value methodology, and value control are applications of value management (VM).

Value Engineering Change Proposal (VECP). A formal technique specified in the Federal Acquisition Regulations (FAR) by which contractors may voluntarily suggest methods for performing the contract more economically and share in any resulting savings. The VECP attempts to eliminate, without impairing essential functions or characteristics, anything that increases acquisition, operation and, or support costs.

Value Management (VM). The science and application of using business management analysis techniques to improve performance and reduce or avoid costs to achieve “best” value of Federal services, acquisitions, and programs.

1349.1 - Procedural Requirements

1349.11 - Projects, Processes, Procedures, and Program Functions

1349.11a - Capital Investment Projects (CIP)

1. Capital investment projects involving construction or reconstruction of physical assets where project cost estimates exceed the dollar limit threshold identified in the current publication of OMB Circular A-131 must have a VA study completed during the planning and/or design phase of the project. The type of projects this applies to include:

- a. roads,
- b. bridges,
- c. buildings,
- d. dams,
- e. visitor centers,
- f. water and wastewater systems, and
- g. developed recreation sites.

It is acceptable for a VA study to be accomplished after the contract is awarded, if a provision is included with the contract requiring completion of a VA study performed by an independent source.

2. It is encouraged to perform Value Management studies on Capital investment projects costing less than the dollar limits identified in the current publication of OMB Circular A-131 when any of the following conditions exist, as determined by the Regional/Station VM coordinator:

- a. Numerous feasible alternatives exist, but with a wide variation in costs or complexity.
- b. When required by local unit policy or line officer.

3. For purposes of determining the total dollar threshold, the project cost includes the following:

- a. survey,
- b. design,
- c. contract administration,

- d. program management/procurement costs, and
- e. cost pool assessments.

This is generally the “appropriated” cost when requesting funding in the President’s budget.

4. When partnerships are involved in financing a project, the threshold for when to perform a VM study is determined considering the individual partner agency threshold and the ultimate owner/operator of the asset. For example, if the total project cost is less than the partner agency threshold for performing a VM study and the Forest Service share of the project cost is less than the dollar limits identified in the current publication of OMB Circular A-131; a VM study is not required by either agency. However, if the ultimate owner/operator of the asset will be the Forest Service, and the total project cost of the asset exceeds the dollar limits identified in the current publication of OMB Circular A-131, a VM study is required to be performed.

1349.11b - Service, Supply, and Other Acquisition Projects

High-cost or high-risk service or supply acquisition contracts should have a completed VA study. Further discussion of what projects should have a VA study completed, should be discussed with the Acquisition Management Staff.

1349.11c - Other Processes, Procedures, or Program Functions

Processes, programs, or procedures deemed by the VM coordinator and local unit manager to be sufficiently complex to afford opportunities for substantial savings, cost avoidance, or improved processes or procedures should be considered for the formal VA study process.

1349.2 - Exceptions to Procedural Requirements

Exceptions to meeting procedural requirements specified in FSM 1349.1 can be requested through a waiver process. Acceptable reasons for not performing VA studies on a required project are:

1. Where the recommendations from a recently completed VA study on a project of a similar type, design, and scope can be directly applied to the subject project.
2. When it can be demonstrated that limited opportunity exists for cost savings, cost avoidance, or improvement of the basic project function.

1349.21 - Waiver Documentation and Submission Process

A written description of the reasons supporting the request for not performing a VA study on a required project shall be submitted for approval to the Regional Forester or Station Director. The approval authority can be delegated to the Deputy Regional Forester or the Regional Director responsible for managing the VM program. Documentation includes project name,

description, cost, planned construction or implementation date, and specific reasons why the waiver is being requested. The waiver should be approved well in advance of the design phase of the project. A copy of the waiver should be sent to the WO Value Management Program Manager along with the Region/Station annual VM report.

1349.3 - Methods to Accomplish VA Studies

Various approaches are appropriate for conducting VA studies effectively and efficiently. All methods must meet the basic requirements established by SAVE International. The complexity, cost, and intensity of the VA study should be based upon the complexity and cost of the project. Costly projects or those that are critical in meeting the unit mission may result in both a Planning and a Design VA study. Less complex projects or those with fewer feasible alternatives may result in a condensed and lower cost VA study process. Some examples of VM processes employed that meet the criteria of SAVE International follow.

1. **Option A - VM Workshop.** A Certified Value Specialist (CVS) facilitates the VA study process using personnel from the responsible unit as team members. Team members may have intimate knowledge of and a stake in the project. A trained and experienced VM team leader (without prior involvement in the project) can serve in lieu of a CVS to facilitate the study.

2. **Option B - Agency VM Team.** Typically, the Forest Service has used personnel from other units that are unfamiliar with the project to perform VA studies. Most team members require VM team member training and the VA team leader should have participated as a team member on several VA study teams. The study is usually a week-long process with an entrance meeting on Monday and a presentation of recommendations on Friday afternoon.

3. **Option C - Contracted VM Team.** This option involves contracting with a VM organization, led by a CVS, to perform the study. The length of these studies can vary from 5 days to 3 weeks, depending upon their complexity. With this method, contractors and agency personnel from the responsible unit can both participate as team members.

4. **Option D - Mini-VA Study.** A truncated 2- to 3-day VA study process was developed several years ago by the Forest Service for less complex projects. Usually the team leader is from another unit. The majority of members can be from the responsible unit but they must be unfamiliar with the project. This process can be used effectively on smaller projects and meets the minimum requirements of SAVE International.

5. **Option E - Design Team VA Reviews.** The Agency has effectively used design team reviews in the past and demonstrated substantial cost reductions, cost avoidances, or performance improvements; however, they were not considered or reported as a valid VA study approach. This process should be recognized as a valid component of the VM program with results and recommendations documented and sent to the WO. Although design team reviews can be used effectively for large or small projects, for larger more complex projects, this approach should supplement, rather than replace, a formal VA study.

6. Option F - Integrate with the Capital Investment Contract. This option allows for addition of contract provision in FAR to execute a VE study performed by a sub-contractor skilled in performing VE studies. This option provides an alternative that allows the responsible unit to complete their VA study requirements without using agency personnel to perform the work.

7. Option G - Value Engineering Change Proposal (VECP). The FAR requires that Contracting Officers insert a Value Engineering clause in solicitations and contracts for services and supplies when the contract amount is expected to be equal to or exceed the current simplified acquisition threshold except for exceptions listed in FAR 48.201a. In many instances, VECPs provide financial incentives to the contractor for cost sharing of any savings identified in the VA study with the Government. VECP approved by the Government need to be recorded and tracked along with the other methods for accomplishing the VM program. Since it is unknown whether a VECP will be requested on any project, this approach may not fulfill VM requirements.

1349.4 - Guidelines for Executing VA Studies Based Upon Project Attributes

The intensity and method for accomplishing VA studies should be commensurate with the complexity and cost of the project. Generally, very large projects (over \$10 million) with several alternative possibilities should invoke a formal, weeklong, VA study process that may use a CVS (contractor). Smaller lower cost/ lower complexity projects may use Option B, the typical approach used in the agency for many years. Projects less than the limits identified in the current publication of OMB Circular A-131, or with fewer alternatives, may be suitable for a mini-VA study or design VA reviews conducted by the responsible unit. Exhibit 01 serves as a guide for selection of the appropriate approach for conducting VA studies based on several key factors and tiered to the options identified in FSM 1349.3.

1349.4 Exhibit 01

VA Implementation Options by Project Type & Complexity

Typical Project	Cost	Complexity/ Risk	No. of Alternatives	Possible Options
Road Reconstruction Project	Medium	High	High	B, D, F
Building Renovation Project	Low	Low	Low	D, E, F
New Visitor Center	High	High	High	A, B, C, F
Dam Rehabilitation	High	High	Low	B, F
Developed Recreation Site	Med/High	Low	High	B, D, E, F
Gravel Road Resurfacing	Low	Low	Low	D, E, F
In-Stream Structure	Low	High	Low	B, D, E, F
Watershed Restoration Project	High	High	High	A, B, C

1349.5 - Timing for Conducting VA

Although they can be conducted at any time during the planning and/or design of the project, VA studies conducted very early in the process produce the best results. The results of the VA study process are easier to implement at the planning phase and/or during the design phase at a time that provides maximum opportunity to incorporate VA study recommendations. The most common types of VA studies are:

1. **“Planning (Conceptual)” VA Study.** Planning VA studies can be conducted when a preliminary plan has been developed prior to initiation of any design. As part of the planning VA study, a planning review can be conducted to differentiate the unit’s goals, to be followed up by a Planning VA study.

2. **“Design” VA.** Initiated when 20 to 60 percent of the design is complete (20 - 35 percent recommended), but prior to initiating the final design. On high-cost and/or complex projects, a VA study should be completed for both the planning and design phases. The responsible unit determines the best time to perform the Design VA study based upon the schedules, workload, and viewpoints of the designers.

The integrated project team leader, in coordination with the unit VM coordinator, is responsible for determining the types, number, and timeframes for performing VA studies for each project.

1349.6 - Annual Reporting of Value Analysis Results and Recommendations

The Office of Management and Budget (OMB) requires each agency to report performance information and results of their VM program annually to demonstrate that the agencies have a viable program that meets the intent of laws, regulations, and direction. Specific information to be reported annually includes:

1. Name of project.
2. Location of project – State, Region, Forest/Station, District, RWU.
3. Type of VA studies accomplished – planning or design.
4. Name and location of VM team leader.
5. List of projects (by Region/Station per fiscal year) exceeding the dollar limits identified in the current publication of OMB Circular A-131 and list of VA studies accomplished.
6. Process of executing VA studies by project (including, contract, agency team, and so on).
7. Original project cost prior to implementing VA study recommendations.

8. Savings in total dollars identified by the VM team.
9. Savings implemented, achieved, or accepted by the responsible unit (includes cost avoidances). The term “implemented” means when the project final design has been approved.
10. Return on Investment (ROI) for each VA study accomplished $ROI = (VA \text{ savings} / \text{cost of performing VA} \times 100)$.
11. Waiver documentation for eligible projects that did not complete a VA study.

Information must be documented on a spreadsheet provided by the Washington Office at the end of the fiscal year. This information will be compiled into one national spreadsheet and sent to OMB. A copy will also be placed on the VM web site when it is operational.

1349.7 - Implementation of VA Recommendations

Responsible officials are expected to implement VA team recommendations unless the recommendations are deemed infeasible, impractical, too costly, do not fit with the architecture of the project or for another justifiable reason. If the responsible unit decides that some or all of the VA team recommendations should or cannot be implemented in the final design, a written statement needs to be prepared by the responsible unit listing the recommendation(s) not to be implemented and specifically describing the reason(s) why they will not be implemented. The responsible official for authorizing the project, usually the Forest Supervisor or Station Director (FSM 1349.04d), must sign the prepared document. Send a copy of this document to the Regional/Research VA Coordinator as documentation.

1349.8 - Minimum Qualifications of VM Team Personnel and Composition of Teams

Personnel performing VA studies need to be well qualified in the science of value management. Most VM team participants require a minimum level of training and experience to successfully lead or participate on a VA study as determined by the type and complexity of the VA.

1349.81 - VM Team Member Qualifications

Personnel serving as team members on VA studies should have completed a 1-week module 1 basic VM training.

1349.82 - VM Team Leader Qualifications

No specific additional training is required to become a VA Team Leader other than completion of the 1-week module 1 basic training. Each Region/Station VM Coordinator manages this as part of their general program. It is advisable; however, that personnel serving as team leaders have participated on at least 2-3 VA studies as team members prior to leading a VM team. The Region/Station VM coordinator is responsible for managing the training and experience of personnel to the level of complexity of VA studies accomplished.

1349.83 - Qualifications of VA Personnel by VA Study Type

The chart in exhibit 01 provides direction on necessary VM team qualifications based on the type of VA study to be conducted.

1349.83 - Exhibit 01

VM Training Requirements by VA Type

VA Type	Module 1 - Team Member Introductory Training Requirements
Option A - VM workshop	Preferred but not required
Option B - Agency VM team	Required (exception of 1 or 2 member)
Option C - Contracted VA study	Required
Option D - Mini-VA study	Not required but desirable
Option E - Design team VA reviews	Not required but desirable
Option F - Integrate with Contract	Required of sub-Contractor