

Position Classification Standard for Forestry Series, GS-0460

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SERIES DEFINITION

This series includes positions which require primarily professional knowledge and competence in forestry science. The work includes development, production, conservation, and utilization of the natural resources of forests and associated lands; the inventory, planning, evaluation, and management of each forest resource including timber, soil, land, water, wildlife and fish habitat, minerals, forage, and outdoor recreation including wilderness, in relationship with each other to meet both present and future public and local private needs and demands; the protection of resources against fire, insects, disease, floods, erosion, and other depredations; the valuation, management, and protection of forest lands and properties; the interpretation and communication of principles, facts, and legislation upon which the management of forest land rests; and the development of new, improved, or more economic scientific methods, practices, or techniques necessary to perform such work.

This standard supersedes the standard for Part I of the Forestry Series, GS-0460, issued in June 1965, for nonresearch positions.

Note: Other scientific positions that have previously been classified by cross-series comparison to Part I of the narrative classification standard for the Forestry Series, GS- 0460, may continue to be classified according to the grade criteria in Part I of this standard until a specific classification standard for that particular occupation has been developed and issued.

SERIES COVERAGE

Positions classified in the Forestry Series, GS- 0460, are concerned with:

- (a) Management, development, protection, and custody of federally-owned or managed forest and associated lands including national forests, Indian reservations, military installations, public domain lands, and other forest lands.
- (b) Programs of cooperation with and technical assistance to States, individual landowners (including participants in soil and water conservation programs), Indian tribal governing bodies, and organized groups, directed toward the protection, reforestation, and proper management of forest and range lands, watershed lands, and urban forests in non-Federal ownership.
- (c) Basic and applied research in forestry, including timber management, forest fire management, forest watershed management, forest economics, and management of other related resources.
- (d) Appraisal or valuation of forest lands, properties, and resources for the acquisition, taxation, sale, exchange, or other purposes, including determination of depreciation and the depletion rate of forest resources.

- (e) Provision of overall leadership in the conservation, development, and use of forest lands and resources, including the periodic survey and determination of nationwide forestry conditions and requirements and the recommendation of policies and programs needed to keep the Nation's forest lands, both public and private, fully productive for the purposes intended under enabling legislation.

Forestry is the scientific management of forests and associated lands for the continuous production of goods and services in a multiple or single resource management context, an art based on science and practiced with due regard for social, political and economic conditions.¹ A forest is regarded as a geographic entity which includes all the components of the area (both organic and inorganic).² Forest land is a broader term that includes forests and associated lands rich are managed and utilized to provide multiple benefits associated with natural resources.

Forestry, as an applied science and in its broadest sense, is the coordinated application of many sciences. Thus watershed management, range management, wildlife management, soil conservation and management, and recreation management are related disciplines when the resource is managed without regard to location, but may be part of forestry when part of multiple-use management for forest land.

BACKGROUND INFORMATION

Knowledges Required

Positions in the Forestry Series are characterized by the professional application of certain specialized knowledges of the objective and principles of forestry and of sciences basic to forestry. While such knowledges vary among positions in this broad and diversified branch of biological science, the characteristic knowledges are identifiable in terms of basic courses in forestry curricula of colleges and universities.

The following fields are characteristic of and basic to most forestry curricula: silviculture, forest soils, forest ecology, dendrology or taxonomic botany, silvics, forest genetics, forest management, mensuration, forest regulation, forest recreation use, forest survey and mapping, wildland fire science, protection from insects and disease, forest economics, forest finance, forest valuation, forest utilization (including logging, milling, forest products, and preparation and use of woods), and related subjects such as the management of ranges and watersheds; the management of wildlife habitat; forest engineering; the fundamental biological, mathematical, and physical sciences underlying forest sciences; and applications of social sciences, public administration, and person-to-person communication skills.

¹Society of American Foresters, *Forestry Terminology*, 1958.

²Samuel T. Dana and Evert W. Johnson, *Forestry Education in America*, 1963.

Objectives

The objectives of forestry activities in the Federal service range along a spectrum from that of intensive, multiple-use resource management to that of custodial protection and care, or to application of tax laws to forest properties. Basic objectives of programs for the intensive management, protection, and development of forest lands and forest resources are (a) to apply sound utilization and conservation practices to the natural resources of publicly managed lands and (b) to promote such practices among all forest landowners through example, cooperation, research and interpretation and dissemination of information. These objectives are expressed in the following principles:

1. Multiple-use forest resource management is the management of all renewable (i.e., soil, wilderness, minerals, antiquities, etc.) resources so that (a) the renewable resources are utilized in planned combinations that will best meet the needs of the people of the Nation; (b) the most judicious use of the land is achieved with provision for periodic adjustments in use to conform to changing needs and conditions; and (c) management of the various renewable and nonrenewable resources is coordinated, each with the other, without impairment of the productivity of the land. Multiple-use management thus involves consideration of the relative values and needs of the various resources in each situation, and not necessarily the combination of uses that will give the greatest dollar return or the greatest unit output.
2. Sustained yield management of forest resources is the achievement and maintenance in perpetuity of a high level of annual or regular periodic output of resources, with net growth and harvest in balance, and without impairment of the productivity of the land.
3. Intensive management of forest resources is the forestry objective of obtaining the maximum in volume and quality of products per unit of area, through the application of the most advanced techniques of silviculture and related sciences. Intensiveness of management is recognized as requiring a higher degree of technical knowledge (particularly of silviculture and related scientific disciplines) than is required by extensive management. Intensive management involves the substantial use of a variety of resource management activities whereas extensive management involves low operating and investment costs per acre.

Intensive management of nonrenewable resources includes, for example, taking measures to protect the soil from erosion, to preserve archaeological sites and cultural remnants of value as antiquities, administer the extraction of minerals, oil and gas in an environmentally sound way, and to identify and protect other unique natural features for future generations.

While underlying principles of scientific forest management have not changed, there have been changes in operating philosophy or procedures brought about, or resulting from new laws, regulations, executive orders; and, on a different plane, increasing social awareness.

The passage of a large number of major laws, in recent years, has provided many new and complex legislative authorities directly related to management of forest and associated public

and private lands. For example, some of the major acts applicable to all agencies are the National Environmental Policy Act of 1969, the Endangered Species Act of 1973 as amended in 1978, and the Clear Water and Clean Air Act amendments of 1977. There have also been numerous other laws enacted which provide legislative direction to one or more agencies such as the Multiple-Use Sustained-Yield Act of 1960, the Forest and Rangeland Renewable Resources Planning Act of 1974 as amended by the National Forest Management Act of 1976, the Federal Land Policy and Management Act of 1976 as amended by the Public Rangelands Improvement Act of 1978, the Soil and Water Resources Conservation Act of 1977, the Cooperative Forestry Assistance Act of 1978, the Forest and Rangeland Renewable Resources Research Act of the 1978, and the Renewable Resources Extension Act of 1978, to name just a few. Further, there has been a great deal of Legislation enacted providing specific statutory designations on public lands such as the Wilderness Act of 1961, the Wild and Scenic Rivers Act of 1968, and the National Trails Act of 1968 as amended. In addition to Federal legislation and requirements, many States and localities have imposed numerous requirements on forestry practices directed primarily to private lands, but which also have significant implications on the management of Federal lands. This vastly expanded number of laws, coupled with subsequent Executive orders, regulations, court decisions and a "rising tide" of public interest and involvement in the use of finite resources on Federal, State, and private lands has further imposed many new requirements on the management of natural resources and associated decision making processes.

The planning process-both short and long-range-has taken an increasingly important role in the management of public lands. The major differences between the traditional resource planning process and the current "land management" or multi-resources planning process lie primarily in four areas: (1) the plans must provide alternative actions and an indepth analysis of the environmental, (physical, biological, social and economic) as well as other effects of each action; (2) the plans must recognize and be developed on a multi-resource basis, utilizing an interdisciplinary approach, and within the context of long range national planning for all renewable resources on both public and private lands; (3) the responsible forestry agency must consult with other Federal and non-federal agencies with pertinent experience and established interest; and (4) the agency must provide for public involvement in the planning process, including hearings or other appropriate measures to obtain the views of interested parties. The land management or multiresources plans that the foresters produce and the implementation of these plans are subject to detailed scrutiny by other agencies and the various publics, not the least of which are the numerous interest groups affected by the land management decisions. The interest groups are diverse, and in many cases their concerns or desires appear to be diametrically opposed; e.g., conservationist and wilderness preservation groups, and users or manufacturers of timber products.

These administrative and legislative requirements and many conflicting pressures are requiring the forestry profession in the Federal service to account for these varied concerns, and in the process to develop coherent and dynamic land management plans and programs, within the scope of national direction, which give due weight to hard products, such as wood and pulp, and to social and economic products or effects. The land management plans provide alternative land use strategies and an analysis of the probable environmental, economic and social effects of implementation of each alternative system. These plans form the basis for environmental impact

statements which are required by the National Environmental Policy Act of 1969 for major Federal actions significantly affecting the quality of the human environment.

OCCUPATIONAL RELATIONSHIPS

Series determinations for positions which contain aspects of related occupations must be made within the framework of the entire occupational situation. The organizational structure, working relationships, career patterns, qualifications of the incumbent, and management's attitudes, desires and objectives frequently have a heavy bearing on the final determination of borderline cases.

The duties, responsibilities and qualifications required for some forestry resource management positions are such that scientists with training and experience in either of two or more professions may be qualified to perform the work, or the positions involve professional work in two or more fields of science. In such cases, it may be appropriate to establish interdisciplinary positions. (See the [Introduction to the Position Classification Standards](#) for more specific guidance.)

Excluded from this series are the following kinds of work:

1. Positions which involve similar but non-professional work in forestry. (See series definitions and classification standards for [Forestry Technician Series, GS-0462](#).)
2. Positions which involve some application of professional forestry principles and practices, but for which the paramount professional knowledge requirement is characteristic of another specialized field, as follows:
 - (a) Positions dealing primarily with the water phases of forest management problems, such as hydrology, sedimentation, climatology, ground water and surface water, or major drainage and flood control undertakings, are classified in other appropriate professional series, e.g., [Hydrology Series, GS-1315](#); [Civil Engineering Series, GS-0810](#); or [Geology Series, GS-1350](#).
 - (b) Positions which require primarily the application of a combination of physical, biological, or agricultural sciences, including forestry, to bring about the sound use and conservation of soil, water and related resources are included in the [Soil Conservation Series, GS-0457](#).
 - (c) Positions concerned primarily with range or wildlife management are included in the [Rangeland Management Series, GS-0454](#); [Wildlife Refuge Management Series, GS-0485](#); [Wildlife Biology Series, GS-0486](#); or other appropriate series.
 - (d) Positions involving primarily professional work in adapting the design, layout, arrangement, and general appearance of forest land areas, including the ground forms, vegetation, (()) structures, and other features that compose the landscape, in order that

such land areas may fulfill the esthetics and functional requirements of their intended use are included in the [Landscape Architecture Series, GS-0807](#). However, positions which involve the selection of other forest resources and other land use planning work (multiple-use management), are included in the Forestry Series, GS- 0460.

- (e) Positions concerned primarily with investigation of the cause, characteristics, prevalence, distribution, and methods of control of harmful insects or diseases of forest trees, stands, and products are included in the [Entomology Series, GS-0414](#), or the [Plant Pathology Series, GS-0434](#). However the job of managing the timber resources on specific areas of forest land, which include responsibility for recognizing evidences of insect or disease infestations, recommending silvicultural and other methods of control, and planning or supervising control operations, are included in the Forestry Series, GS- 0460.
- (f) Positions concerned primarily with the development, improvement, and industrial utilization of forest products, based on knowledge of the anatomy and properties of wood and its identification and preservation, are included in the [Forest Products Technology Series, GS-1380](#).
- (g) Positions requiring primarily the application of engineering concepts and principles to the economic design, location, construction, and maintenance of forest highways and timber access roads, bridges, dams, and other such structures, and the management, protection, and development of mineral resources, as well as the valuation of such structures and resources, are included in the appropriate series in the [Engineering and Architecture Group, GS-0800](#). However, included in the Forestry Series, GS- 0460, are positions which involve planning, surveying of routes for, and laying out roads suitable for the logging of timber from specific working circles or portions thereof, where protection, development, and utilization of the timber and other forest resources and land use values within and adjacent to the areas must be evaluated in determining actual location and type to best serve the interests of forest management.
- (h) Positions dealing primarily with interpretation of soil science concepts and principles on forested lands to bring about sound soil management for sustaining and where appropriate, increasing multiple-resource outputs are included in the [Soil Science Series, GS-0470](#).

SPECIALIZATIONS AND TITLES

The development of programs of intensive management of Federal and associated public and private lands has led to various degrees of specialization within the field of forestry in some agencies as indicated by organizational and functional divisions of work. These specializations have taken various forms including (a) specialization by subject matter or resource program, e.g., timber management, recreation management, fire management; (b) specialization by program area or activity, e. g., fuels management, silviculture, fire protection and control, cooperative forestry; and overall administration.

The variations in specialty fields are such that it is impracticable to define all such variations as classification specializations. Therefore, the specializations established in this standard are limited to those major categories, within the series, which require significantly different knowledges and skills, and which are most useful on a continuing basis, in the light of changing program emphases.

The following specializations and titles are established:

FORESTER (Administration)

This specialization includes positions concerned with both the scientific and executive phases of forest management, involving the organization and direction of personnel, and the use of funds, facilities, and materials needed to meet the objectives of management on designated areas of forest land, including the multiple-use management, protection, development, and utilization of timber, forage, range, recreation, soil, water, and all other resources. Positions in this specialization have the title Forester (Administrations).

The work of a Forester (Administration) requires administrative and managerial qualifications, in addition to the scientific forestry qualifications typical of those performing staff work. In addition to required skills in planning and managing the work of professional foresters engaged in the various specialized activities involved in multiple-use forest management, Foresters (Administration) are also required to have command of the principles and capabilities of a variety of other disciplines sufficient to enable them to direct the work and plan for utilizing the skills of employees in these disciplines. Occupations which provide specialized support to the programs directed by many Foresters (Administration) include architects and landscape architects, accountants and budget specialists, engineers (civil, electronics, and mining), entomologists and plant pathologists, geneticists, personnel specialists and management analysts, procurement and contract specialists, range conservationists, soil scientists, and many others.

RESEARCH FORESTER

This specialization includes positions engaged in basic or applied research for the purpose of developing new, improved, or more economic methods and practices in the establishment, culture, protection, management, and utilization of forests and forest resources, and for discovering and interpreting principles and facts related to increased productive use of such lands. Positions in this specialization have the title Research Forester.

Some of the subject areas of research are: timber management, forest soil and water, forest recreation, wildlife habitat, forest fire, and forest economics.

This specialization does not include positions which involve short-range administrative or special studies for planning purposes on a specific forest where such may be considered normal staff-type factfinding, analysis, and evaluation. Such studies typically lead to an operating plan, report, or recommendation for a research project.

RESEARCH FORESTER (Administration)

This specialization includes positions concerned with both scientific and executive administration of research in forestry and related fields of science, involving the organization and direction of personnel and the use of funds, facilities, and materials required to meet the objectives of forestry research programs. These positions require administrative qualifications in addition to scientific qualifications typical of research foresters and researchers in related disciplines. Positions in this specialization have the title Research Forester (Administration).

FORESTER

All other positions in this series have the basic title Forester. Supervisory Forester and Supervisory Research Forester titles are to be used for positions which meet or exceed the criteria of the [General Schedule Supervisory Guide](#) for evaluation as a supervisor.

ORGANIZATION OF THE STANDARD

The grade-level criteria are in two parts:

Part I is in Factor Evaluation System format and is to be used for non-research positions in which non-supervisory responsibilities are grade-controlling.

Part II remains in traditional or narrative format and is to be used for positions of Forester (Administration).

NOTES ON TERMINOLOGY

To provide a frame of reference as to context of a position within the total organizational structure, and, to the extent possible, to reduce differences in organizational terminology among the employing agencies, the terms used to refer to hierarchical settings are defined as follows:

First Level Unit - This refers to the basic field office or unit in each agency which:

- Is directly responsible for program execution;
- Deals with the public, interested individuals, and local groups in day-to-day direct contacts; and,

Second Level Unit - This refers to the office or unit in each agency which:

- Coordinates, monitors, and guides first level units;

- Provides advice' on or deals with complex, technical, or administrative problems including those of an especially sensitive nature which involve political, social, or economic issues; and,
- Serves higher headquarters as a focal point for gathering program data and for sending out instructions on new program directions.

Note: It is recognized that various agencies/bureaus have different organizational alignments (e.g., different number of levels from top to bottom, pure line and pure staff positions, or a combination of line/staff positions at certain levels) due to differences in mission, in operational needs and characteristics, in management philosophies, etc. The hierarchical terms noted above are meant to serve as a relative frame of reference—the terms in and of themselves cannot, and should not, be used to justify matching to a particular factor level or benchmark. Where differences in organizational levels occur among or between agencies/bureaus, such differences are usually reflected in the duties, responsibilities, and authorities delegated to particular forester positions. Therefore, these differences should be analyzed as to their strengthening or weakening characteristics relative to a particular benchmark or factor level and a classification judgment made as to whether they justify matching to a lower/ higher factor level. (For example, in situations where a forester's immediate superior does not possess full professional qualifications as a forester, a close review of Factor 2, Supervisory Controls, may indicate that, notwithstanding direct similarities to other factors in a benchmark, the position may warrant a factor level higher than that shown in the otherwise similar benchmark.)

Where the terms, short-range plan or plans, are used in the standard, this refers to operational plans covering 5 years or less; the term, long-range plans, refers to future strategies covering 5 plus years (usually 6-10 years).

GRADING OF POSITIONS

This standard does not provide grade-level criteria for all types of forester positions. The following are some of the other standards which are intended to be used in place of or to supplement this standard:

1. The [General Schedule Supervisory Guide](#) is to be used for supervisory positions other than positions of Forester (Administration). Many of the program management and other types of positions covered in Part I of the Forestry Series include supervisory/ managerial responsibilities. In such cases, it may be necessary to use the criteria provided in this standard and the guide to determine the appropriate grade level.

The responsibilities of some program management positions covered in Part I of this standard may justify matching to a level of a factor (particularly Factor I) which is higher than the factor level in a benchmark with apparently similar duties. Proper classification technique requires a careful analysis of the duties and responsibilities of the position to be classified to isolate any differences or dissimilarities in duties and responsibilities evident in a given benchmark. Such an analysis should provide the basis for a judgement

as to whether these differences and dissimilarities are fully equivalent to the overall intent of the next higher factor level.

2. The [Research Grade Evaluation Guide](#) is to be used to evaluate positions involved in Forestry Research. However, positions evaluated by the Forestry standard may include administrative studies which involve short-range, staff-type factfinding, analysis, and evaluation for specific planning purposes.
3. The [Guide for the Evaluation of Professional Positions Engaged in Interpretive Work](#) is to be used to evaluate forester positions in which the highest level function for a substantial proportion of the time involves planning and implementing interpretive programs.
4. The standard for the [Forestry Technician Series, GS-0462](#), contains pertinent occupational information. The grade-level criteria for such technician positions are useful in appraising forester positions with comparable duties and responsibilities. The mere fact that positions are professional does not change the grade value of the work performed unless additional professional duties and responsibilities warrant consideration.
5. The Guide for Appraisal of Scientific Positions Proposed for GS-16, GS--17, and GS-18 should be used for forester positions to be proposed for grades above GS-15.

EVALUATION NOTES

1. Positions should be evaluated on a factor-by-factor basis, using one or more of the Office of Personnel Management benchmarks or the Factor Level Descriptions for the Forestry Series, or both. Only the designated point values may be used. Additional instructions for evaluating positions are contained in [Introduction to the Position Classification Standards](#). It should be noted that the absence of a benchmark for positions at any grade from GS-5 to GS-15 does not preclude evaluation of positions at that grade.
2. In various segments of the standard, e.g., illustrative examples in the Factor Level Descriptions and factor descriptions in benchmarks, certain climatic, biological, physiographical, and "user" features are described and, in some instances, quantified. Two points must be borne in mind in using the standard: (1) the fact that a particular forest area has a number of complex biological and physiological features is significant; however, the more important point is the extent that the forester is able and authorized to deal with them and to exercise authority with respect to them; and (2) the use of quantified values is for illustrative purposes only; to give a broad frame of reference. All of the descriptive material found in a particular factor, a benchmark, or factor level description which bears on the position being evaluated must be considered and given appropriate weight.

3. The descriptive criteria contained in this standard is precisely that-descriptive, it expresses the nature or quality of a particular factor or level. It does not prescribe the universe of characteristics which may justify matching to a particular factor or factor level. There are numerous work situations and position characteristics that are found in the forestry profession which may not be specifically or definitively identified in the descriptive material under a particular factor, factor level or benchmark. It therefore follows that good classification judgement must be used in deciding whether a particular position element fully meets the intent of a particular factor level.

In connection with the above, it should be noted that many of the factor level descriptions and benchmarks are timber related. This should not be misconstrued. The forestry profession, as stated in the section dealing with the objectives of forestry, is concerned with the multiple-use management of all forest resources, both renewable and non-renewable. The timber specialty was chosen for illustrative purposes to show the linear progression of a particular specialty through the factor-and-grade-levels.

GRADE CONVERSION TABLE

Total points on all evaluation factors are converted to GS grade as follows:

GS Grade	Point Range
5	855-1100
6	1105-1350
7	1355-1600
8	1605-1850
9	1855-2100
10	2105-2350
11	2355-2750
12	2755-3150
13	3155-3600
14	3605-4050
15	4055- up

PART I

FACTOR LEVEL DESCRIPTIONS

FACTOR 1, KNOWLEDGE REQUIRED BY THE POSITION

This factor measures the nature and extent of information or facts the forester must understand to do acceptable work (e.g., steps, procedures, practices, rules, policies, theories, principles, and concepts) and the nature and extent of the skills needed to apply those knowledges.

Level 1-5 -- 750 Points - A basic foundation of the professional concepts, principles, and methodology of forestry including the biological sciences, and the economic and forest management considerations involved in the development, production, conservation, and utilization of all resources of forest areas. These knowledges would typically be acquired through a bachelor's degree program in forestry.

OR

Equivalent knowledge and skill.

Level 1-6 -- 950 Points - A professional knowledge of established methods and techniques of the science of forestry which would enable the forester to perform recurring assignments of moderate difficulty, i.e., the methods and techniques are well established, apply to most situations encountered, and do not require significant deviation from the established methods. The assignments are limited by such characteristics as:

- unusual or difficult problems are screened out or discussed with the supervisor before carrying out the assignment;
- the forest area affected is amenable to a variety of standard treatments and proven techniques; or
- the forest areas assigned are relatively noncontroversial in terms of past and future use, or resource depletion, protection, or rehabilitation problems.

A general knowledge and understanding of agency and/or tribal policies, procedures and appropriate statutes affecting the use of forest resources sufficient to utilize such knowledge in the execution of forest resource programs.

Limited knowledge of related disciplines such as soil science and hydrology sufficient to utilize such knowledge in activities such as onsite inspection of timber sales for resource protection purposes or the identification of incipient erosion control or watershed problems.

OR

Equivalent knowledge and skill.

Illustrations:

- Knowledge and skills sufficient to study aerial photographs and other references related to physical and resource factors in order to: determine timber road routes; lay out boundaries for cutting or treatment or other resource uses, in accordance with approved plans; identify potential recreation areas; or locate land lines or boundaries, and identify resource characteristics of immediately surrounding areas.
- Knowledge and skills sufficient to inspect ongoing timber sales for compliance with management plans, use-permits, and contract provisions covering such elements as timber utilization, skidding practices, slash disposal, road location and use, and fire prevention; and the skill to devise or recommend corrective practices for increased protection of resources when necessitated by changing environmental conditions.
- Knowledge and skills sufficient to cruise large tracts of timber where the specified accuracy requires a high level of proficiency in cruising. Knowledge and skill sufficient to determine grade, volume, and value of timber; to assemble appraisal data including realizations and costs by grade of lumber per unit product, and to estimate logging and processing costs for a variety of operating conditions, commercial species and types of operations.

Level 1-7 -- 1250 Points - Professional knowledge of forestry science applicable to a wide range of duties in an intensive forestry resource or subject matter program or program activity, and the skill to solve problems covering diverse forestry situations and assignments. The assignments require sound professional knowledges and skills sufficient to modify or adapt standard forestry techniques and procedures, and to assess, select, and make use of precedents in devising strategies and plans to overcome significant resource problems.

A knowledge of the characteristics, conditions, and interrelationships of forest resources; the knowledge independently to evaluate, project, and/or prepare studies and reports on the complementary or competitive impact of the development, modification, or change in the use or output of one resource on the other forest resources.

A thorough knowledge of agency and/or tribal policies and procedures, and applicable statutes governing the use of forest resources, and familiarity with related disciplines such as entomology, hydrology, plant pathology, wildlife biology, and forest genetics sufficient to utilize such knowledge in the design and execution or over sight of forestry resource programs.

Administrative and coordinative skills to (1) provide advisory, review, and training services to others engaged in the planning and management of Federal, State, or private forestry units, and/or (2) develop a variety of integrated annual work plans for complex projects which often extend over 3-6 years, including estimates of personnel, equipment, and materials, the detailed

schedules necessary to carry out the plans, and the attendant skill to review and critique the operational implementation of the plans; or Intensive knowledge and competence in advanced techniques of a highly complex area of forest resource management or cooperative forestry sufficient to serve as a "troubleshooter," specialist, or coordinator.

OR

Equivalent knowledge and skills.

Illustrations:

- Knowledge and skills necessary to develop and oversee the execution of an active timber management program for the on-the-ground implementation of long-range functional resource management plans on active and intensively managed forest lands. A high level of skill and resourcefulness is required to meet commitments for accomplishing program objectives including timber outputs while maintaining the level of, or reducing the negative effect on, other resources, and in devising plans for personnel and material.
- Knowledge and skills sufficient to coordinate the development or modification of intensive and comprehensive long-range land management studies and plans for forested and related areas of a second level unit. The assignments require the knowledge necessary to analyze and present pertinent data involving the inter-relationships of economic, social, intergovernmental, and natural resource factors, and the skill to formulate alternative approaches, resolve differences among diverse groups with competing goals, and effectively recommend and justify the land management strategy which optimizes the mix and level of use of each affected resource.
- Knowledge and skills sufficient to provide advanced professional forestry advice, training, consulting and review services in a specialty field such as regeneration and timber stand improvement. The assignment requires intensive knowledge to identify improvement opportunities and causes of deficiencies, and the ability to effectively recommend changes and improvements to other professionals or to State or private organizations.

Level 1-8 -- 1550 Points - Mastery of the forestry profession to the extent that the forester is capable of applying new scientific findings, developments, and advances to the solution of critical problems of a particularly unique, novel, or highly controversial nature. This includes problems for which current information is inconclusive, or is in the form of suppositions or theories as to their effectiveness in treating specific resource oriented problems.

Comprehensive knowledge of forestry and the principles of multiple-use management of forest resources sufficient to develop or refine solutions or recommendations on complex problems, to take actions which have significant impact on existing agency policies and programs, to project developmental trends and future needs, and to extend existing techniques or develop new approaches for the use of other foresters or private land owners. Typically, the forester is

recognized as a technical authority in the particular subject matter or resource program or program area.

Extensive knowledge of the latest technological advances in a particular area of forestry sufficient to evaluate their effectiveness and usefulness and to develop plans and procedures to incorporate such advances into the resource management process.

Comprehensive knowledge of agency and/or tribal policies, procedures and applicable statutes governing the use of forest resources, sufficient to utilize such knowledge in the design and oversight of forestry programs.

OR

Equivalent knowledge and skill.

Illustrations:

- Knowledge and skills sufficient to provide technical leadership, staff coordination, and consultation for the broad complex timber management programs of subordinate administrative units, most of which have significant timber sale activity, (area disturbed, degree and type of disruption etc.) critical demands for increased use of the resource, and require substantial developmental or rehabilitative activities. The forester requires a broad gauged knowledge of the science of forestry sufficient to discharge a key role in the overall planning and administration of the forest area, to make general inspections of the units for evaluation purposes, to provide staff and advisory services, and to develop long-range functional resource plans which are integrated with the overall forest land management (multiple-use) plans and national direction.
- Knowledge and skills of the broad area of fire management sufficient to provide advisory, consulting, and review services to foresters employed by a number of states. The forester requires a broad knowledge of the science of forestry to evaluate new developments in forestry, especially in the area of fire management, and to revise methods for applying these developments to the varied geographic areas serviced by the forester's office. Knowledge sufficient to prepare field guides and manuals for the use of State foresters; to provide training on new fire management strategies and techniques; and to evaluate the effectiveness of fire management programs including all aspects of prescribed burning, forest fire prevention and control, and rural fire protection.

Level 1-9 -- 1850 Points - Mastery of the forestry profession the extent that the forester (1) is capable of generating new hypothesis, developing new concepts, and planning and directing or planning and executing long range programs and projects of national significance, or (2) serves as a nationally recognized consultant and expert in a broad resource or subject-matter program which impacts on a number of resources.

OR

Equivalent knowledge and skill.

Illustrations:

- Knowledge of forestry and related sciences sufficient to: (1) formulate nation-wide research policies and programs; (2) plan, organize and stimulate effective and balanced research; (3) coordinate assigned programs with related research in other agencies, universities, and industrial and private research organization; and (4) serve as a nationally recognized consultant and expert on forest-land renewable resource economic research programs including (a) economic and financial analyses of production technologies, (b) resource-related economic problems in the management programs, and other factors affecting the production of renewable resource goods and services, and (d) fundamental research to improve markets and marketing procedures for products and services of forests and related lands.
- Knowledge of forestry sufficient to formulate policy and to provide leadership and direction of a dynamic timber management program covering one or more states and embracing a wide variety of administrative and technological problems; knowledge of forestry program management sufficient to define new methods and techniques for handling complex scientific, economic social and land-use issues in timber management planning which serves, from time-to-time, as the basis for changes in the direction or content of agency-wide policies, procedures, etc.; and knowledge of the science of forestry such that the forester is a nationally recognized authority and consultant in the field of timber management and is called upon to serve as a principal advisor and collaborator to the national headquarters office on the development of agency policies, plans and programs.

FACTOR 2, SUPERVISORY CONTROLS

"Supervisory Controls" covers the nature and extent of direct or indirect controls exercised by the supervisor, the forester's responsibility, and the review of completed work. Controls are exercised by the supervisor in the way assignments are made, instructions are given to the forester, priorities and deadlines are set, and objectives and boundaries are defined. Responsibility of the employee depends upon the extent to which the forester is expected to develop the sequence and timing of various aspects of the work, to modify or recommend modification of instructions, and to participate in establishing priorities and defining objectives. The degree of review of completed work depends upon the nature and extent of the review, e.g., close and detailed review of each phase of the assignment; detailed review of the finished assignment; spot-check of finished work for accuracy, or review only for adherence to policy.

Note: Technical guidance may be furnished by a project leader or other higher graded forester in the organization as well as by the supervisor.

Level 2-1 -- 25 Points - The supervisor provides detailed instructions on practices to be followed, the objectives of each work operation, and the expected results.

The forester works according to the pre-assignment instructions and consults with the supervisor when confronted with any condition or situation that was not provided for in the instructions.

Work is reviewed in progress and on completion for technical accuracy and adherence to instructions and established procedures.

Level 2-2 -- 125 Points - The supervisor outlines the purpose of the assignment, expected outcome, anticipated problems, and suggested methods for handling these problems. The instructions on continuing assignments or assignments with which the forester is experienced are broad and do not cover individual steps to be followed. When the forester is assigned to a project that is unfamiliar and with which the forester has had no practical experience, the supervisor provides specific instructions for handling the assignments.

The employee is responsible for planning the sequence of tasks necessary to carry out the recurring assignments, but will ask the supervisor for guidance if unanticipated problems or conditions develop which require deviation from approved operational plans, schedules, or policy.

The supervisor reviews completed work for compliance with approved work plans, forestry practices, and internal procedures to determine the correctness of decisions made and methods used during the assignment, and to ensure the objective were met. The supervisor may review the methods the forester intends to use prior to inception of non-routine assignments which are new to the forester.

Level 2-8 -- 275 Points - The scope of the project assignment, immediate objectives and deadlines necessary to meet objectives are specified by the supervisor.

The forester is expected to plan and carry out the assignment independently in accordance with proven forestry techniques, practices, and previous experience. On assignments that involve, or may potentially involve, controversial use or modification of the forest environment, the forester typically will discuss the issues and possible approaches with the supervisor before carrying out the assignment.

Completed work is reviewed for adequacy, technical soundness, and accomplishment of specified objectives. Potentially controversial findings or recommendations are reviewed for impact on local and agency programs and policies.

Level 2-4 -- 450 Points - The supervisor outlines the overall objectives and resources available. As required, the supervisor and forester will confer on priorities within assigned area, and deadlines for the assignments which are usually affected by administrative or environmental factors, e.g., short growing season, reduced budget, or necessity for preparation of an environmental impact statement and its attendant procedures.

The forester independently constructs an action plan, selecting techniques and establishing methods and procedures for completing the assignments. The forester is responsible for coordinating the work with specialists in other resources or disciplines (e.g., engineering) and resolving problems that occur directly with the interested parties.

From time-to-time, the forester meets with the supervisor to review overall progress, and to confer on problems which have arisen concerning the interpretation and application of agency and/or tribal policy to environmentally sensitive and controversial forest areas. The completed work is reviewed for general adequacy in meeting program or project objectives or for compatibility with other projects.

Level 2-5 -- 650 Points - The supervisory guidance or control at this level is exercised through broad general objectives which have been approved for the assigned programs, within the constraints and context of various national legislation, agency policy, and over-all agency objectives as they relate to development, protection, and utilization of all forest resources.

Within these broad areas of direction, the forester is responsible for independently determining the validity and soundness of programs and plans, developing forestry standards and guides, and independently carrying out programs, projects, and studies.

The results of the work, including recommendations and decisions, are accepted as technically authoritative. When the work is reviewed, it is primarily in relation to broad policy requirements and administrative controls such as budgets.

FACTOR 3, GUIDELINES

This factor covers the nature of guidelines and the judgment needed to apply them. Since individual forestry assignments vary in the specificity, applicability, and availability of guidelines, the constraints and judgmental demands placed upon the foresters also vary. The existence of specific instructions, procedures, and policies may limit the opportunity of the forester to make or recommend decisions or actions; however, in the absence of procedures or under broadly stated objectives, the forester may use considerable judgment in researching literature and developing new methods. For this factor, guidelines refer to standard guides, precedents, methods, and techniques including:

- governing statutes and regulations;
- agency manuals of standard procedures and techniques;
- land management plans;
- long-range subject matter or resource plans;
- action plans and annual work plans;

- historical data; and
- textbooks, professional journals, and research reports.

Level 3-1 -- 25 Points - The forester has specific and detailed technical guides and instructional material available and directly applicable to the assignments.

The forester has virtually no latitude for deviations from instructions and guides unless instructed to deviate, or such changes are approved by the supervisor.

Level 3-2 -- 125 Points - Guidelines include approved work plans; local and technical historical records or reference data as to characteristics, conditions, treatments, and previous uses of the resources involved; standard timber sales contracts; and agency manuals and handbooks including such information as standard methodology, statistical information, formulae, and policy and regulations. On an irregular and infrequent basis, the forester may make minor deviation to adapt the guidelines to specific cases. Usually, when situations occur to which the existing guidelines do not apply, where significant deviations are required, or where the application of precedent is unclear, the forester asks the supervisor for advice and assistance.

Judgment is exercised in such areas as the selection of the most appropriate procedures or guidelines necessary to complete a specific assignment consistent with desired results and in consideration of the effect on all forest resources.

Level 3-3 -- 275 Points - Guidelines include action plans for related programs or activities, manuals of standard procedures and practices, textbooks, research reports, and other literature.

Most assignments have aspects which require the forester to select, adapt, or interpret existing methods, practices, and instructions or to generalize from several guidelines and techniques in carrying out the activities, ensuring coordination with other resources, and in solving the more complex problems. Some assignments require frequent departures from standardized procedures in order to establish tentative direction for completion of the assignments. The employee determines when problems require additional guidance.

Level 3-4 -- 450 Points - Guidelines at this level are often inadequate to deal with the more complex or unusual problems, or problems concerned with novel, undeveloped, or controversial aspects of forestry. The precedents or guides may point toward conflicting decisions; recent court decisions may appear to require a technical decision at variance with existing guides; there may be relatively few precedents or guides which are pertinent to the specific problems, or proven methods of treating the problem under varying conditions are lacking or incomplete, e.g., where dwarf mistletoe is abundant, fire may encourage or discourage the continued presence of the pathogen, depending on other environmental factors.

The forester is required to deviate from, or extend traditional forestry methods and practices, or to develop essentially new or vastly modified techniques and methods for obtaining effective results.

Level 3-5 -- 650 Points - Foresters at this level are largely occupied with major problems which are highly unusual and for which there is little information (guidelines) available. They are essentially guided by general overall directives outlining technical objectives, and broad policies, laws, and recent scientific and economic advances in the "state of the art."

The forester must exert a high degree of judgment, originality, and creativity in such areas as:

- interpreting and converting general legislative or agency objectives and policies into specific plans and programs or into activities which will produce desired data upon which highly important action programs and forestry decisions will be based;
- evaluating problems in judging direction, extent, and significance of trends and developments;
- adjusting broad programs or program areas to the latest advances in forestry and to changing needs.

Generally, the forester is recognized as a technical authority in a resource or subject matter program or program area with responsibility for the development of policies, plans, standards, procedures, and instructions to guide personnel on action programs.

FACTOR 4, COMPLEXITY

This factor covers the nature, number, variety, and intricacy of tasks, steps, processes, or methods in the work performed; the difficulty in identifying what needs to be done; and the difficulty and originality involved in performing the work.

Level 4-2 -- 75 Points - Assignments consist of specific, often unrelated tasks which are designed to provide the forester with experience in the application of scientific forestry principles and theories to the performance of productive forestry work and to enable the forester to acquire a variety of advanced forestry skills and techniques. The assignments may consist of routine, individualized tasks, or limited phases of broader assignments for which foresters of higher level have overall responsibility.

The assignments are readily accomplished by the application of basic principles, theories, and practices of forestry as all assignments are screened to eliminate difficult or unusual resource problems or phenomena. The work includes such tasks as: making observations on-the-ground in which phenomena are readily identifiable and observable, collecting and recording data, reporting observations, detecting discrepancies in results, and identifying deviations and problems which may require referral to foresters of greater experience.

At this level, duties, and the inherent complexity of the duties, may be similar to those performed by nonprofessional employees. Such assignments, however, are performed for a shorter period of time, are assigned primarily for training and development of the professional forester, and are designed as a supplement to previous academic training in the basic science of forestry.

Level 4-3 -- 150 Points - Assignments consist of a variety of professional work operations in assigned activities such as (a) the inventory of a given resource and its current conditions, (b) the drafting of conventional, short-range plans or prescriptions of resource management or protection, and (c) the inspection of work on-the-ground for conformance to standards and instructions.

The work is characterized by analyses and evaluations of environmental conditions, characteristics, and values, and the interrelationship of forest resources which may involve considerations such as (a) the need to choose from among alternative locations, techniques, or solutions; or (b) coordination problems caused by interferences or conflicts with other resource uses or functions.

The problems are similar to those previously encountered in the forest area, and the assignments are carried out without substantial adaptation or modification of precedents. At this level, the exercise of originality is less significant than the judgment required to apply a range of conventional approaches and solutions to precedent situations.

Level 4-4 -- 225 Points - At this level, foresters independently carry out a wide variety of assignments consisting of diverse and complex technical or administrative problems and considerations. They regularly encounter interdependent resource and socioeconomic problems requiring flexibility and judgment in approach to the problems and in the forestry practices applied, in order to obtain an optimum balance between available economic, staff, or natural resources and the demands of the various publics.

The assignments typically involve land management problems requiring in-depth analysis and evaluation of alternatives due to such complicating factors as extensive programmed developmental activity and heavy resource use; environmental problems and conflicting requirements whose resolutions may have serious public or tribal impacts; or strong, conflicting public or tribal demands and pressures to redirect the land management strategies for the use, or the level of use, of different forest resources. These demands may result in appeals to higher level agency or tribal officials or formal legal action.

The work requires the forester independently to identify the boundaries of the problems involved, the kinds of data needed to solve the problem, and the criteria and techniques to be applied in accomplishing the assignment. Typically, the work assignments require the forester to relate new work situations to precedent situations, extend or modify existing techniques, or develop compromises with standard forestry practice, to adequately solve the forestry problems. Occasionally, the assignments require substantial effort to overcome resistance to change when it is necessary to modify an accepted method or approach.

Level 4-5 -- 325 Points - Work at this level is characterized by a variety of assignments and problems arising on a number of a geographically and environmentally varied forest units or privately owned forest lands, where the forester is independently responsible for (a) coordination, liaison and planning activities covering broad resource or subject matter programs, or (b) intensive analysis and problem solving in a particular program area where the forester serves in an authoritative capacity as an expert.

The work involves solving problems concerned with novel, undeveloped or controversial aspects of forestry and related fields. The problems have become complex or difficult due to such characteristics as the abstract nature of the concepts involved, the inability in the past to overcome the problems due to the intractable nature of the problems, or the existence of serious conflicts between scientific requirements and program direction.

The assignments require the forester to be especially versatile and innovative in order to recognize possible new directions or approaches; to devise new or improved techniques or strategies for obtaining effective results; or to anticipate future trends and requirements in forest resource use and demands.

Level 4-6 -- 450 Points - Assignments at this level are concerned with projects or programs of major significance, where the controlling theory and practices are largely undefined, or where the forestry methods and practices are in a state of development or are extensively affected by advances in technology.

The problems encountered are usually undefined or in dispute, and require extensive analysis for definition of the problem prior to searching for solutions to the problems. They may be of such scope and complexity that they require supportive projects or subdivisions of the problems that are carried on concurrently or sequentially with support of others in the agency. The forester's actions may alter standard forestry concepts, theories, objectives, or previously held requirements and criteria throughout the agency.

FACTOR 5, SCOPE AND EFFECT

Scope and Effect covers the relationship between the nature of the work, i.e., the purpose, breadth, and depth of the assignment, and the effect of work products or services both within and outside the organization.

Effect measures such things as whether the work output facilitates the work of others, provides timely services of a personal nature, or impacts on the adequacy of research conclusions. The concept of effect alone does not provide sufficient information to properly understand and evaluate the impact of the position. The scope of the work completes the picture, allowing consistent evaluations.

Only the effect of properly performed work is to be considered.

Level 5-1 -- 25 Points - The purpose of the work is to orient the forester in the practical application of academic theory and basic principles of forestry. The work tasks are specific and limited and are primarily for training purposes to equip the forester to assume more responsible forestry duties. The work's effect is to facilitate the work of other foresters within the immediate organization unit.

Level 5-2 -- 75 Points - Foresters perform tasks associated with, or which are parts of, broader assignments that are the responsibility of others; the forester at this level may provide assistance to, and relieve higher level foresters of detailed and routine parts of the overall assignments and have an effect on the accuracy, reliability, and timeliness of the overall project.

Level 5-3 -- 150 Points - The purpose of the work is to investigate and analyze a variety of conventional resource problems and environmental conditions and to recommend and/or implement solutions to overcome them to meet resource management objectives.

The work affects the efficient development, protection, and use of a particular resource, the public's impression of the adequacy of the management of the particular resource and the other resources it impacts upon, and the socio-economic welfare of dependent communities.

Level 5-4 -- 225 Points - Foresters at this level develop essentially new or vastly improved techniques or solutions to specific problems in a resource or subject matter program or program area, and coordinate results with related resource activities. They furnish advisory, planning, or review services on specific problems, programs, or functions. They are typically concerned with problems which occur at a number of locations within a broad geographic area, or affect the continued existence of a resource unique to a geographical area.

The results of the work directly influences the effectiveness and acceptability of agency goals, programs and/or activities.

Level 5-5 -- 325 Points - Foresters at this level are concerned with such things as resolving critical or highly unusual problems, developing new approaches or techniques for the use of other foresters or private landowners, determining the validity and soundness of programs and plans, and developing standards and guides for the improvement of forestry resource use, development, and protection.

The results of the assignments affect the work of state and county officials, private landowners, top-level administrators of the agency, resource program and land managers, and technical specialists. The work has considerable influence on the development and/or effectiveness of the policies, programs, and actions of the agency in a number of forest areas in one or more states.

Level 5-6 -- 450 Points - The purpose of the work is to plan and execute or monitor major forestry programs or projects for the agency which are usually of national scope and importance. The forester often serves as an expert consultant in an area of expertise to top level administration within the organization or to a broad national consortium of experts and special

interest groups who are seeking critical evaluation and advice on persistent and complex forestry resource problems which require long-range solutions.

The forester's actions affect broad agency programs and legislative recommendations, or other forestry-oriented agencies and organizations, on a long-range and continuing basis.

FACTOR 6, PERSONAL CONTACTS

This factor includes face-to-face contacts and telephone and radio dialogue with persons not in the supervisory chain. (NOTE: Personal contacts with supervisors are covered under Factor 2, Supervisory Controls.) Levels described under this factor are based on what is required to make the initial contact, the difficulty of communicating with those contacted, and the setting in which the contact takes place (e.g., the degree to which the employee and those-contacted recognize their relative roles and authorities).

Above the lowest level, points should be credited under this factor only for contacts which are essential for successful performance of the work and which have a demonstrable impact on the difficulty and responsibility of the work performed.

The relationship of Factors 6 and 7 presumes that the same contacts will be evaluated for both factors. Therefore, use the personal contacts which serve as the basis for the level selected for Factor 7 as the basis for selecting a level for Factor 6.

Level 6-1 -- 10 Points - The personal contacts are with higher grade foresters or experienced forestry technicians within the immediate work unit, or with members of the public in highly structured or controlled situations, i.e., usually in the presence of a forester of higher grade.

Level 6-2 -- 25 Points - Personal contacts are with employees in the agency, inside and outside the immediate organization, e.g., foresters from higher level organizational units, or occasionally, resource persons from State or local forestry units; and with the general public, or special users, e. g., livestock owners or timber operators. The contacts are usually established on a routine basis, but the forester's authority may not be initially clear to the person contacted.

Level 6-3 -- 60 Points - Contacts are regularly with professional subject matter specialists in forestry and related disciplines, within the agency, in other Federal agencies, in universities, private foundations and professional societies, and with influential local community leaders, tribal governing bodies, or state officials, with newspaper, radio and television reporters, with private forest landowners, representatives of organized livestock and conservationist groups, and prospective and current permittees. In many cases the contacts may be on an ad hoc basis and the "role" of each party is established and developed during the course of the contact.

Level 6-4 -- 110 Points - Personal contacts are with high-ranking representatives from outside the agency at national or international levels including such persons as key officials and top level forestry and other scientific personnel of other agencies, Members of Congress, state

governors, mayors of large cities, top executives of major forest products companies, or nationally recognized spokespersons for nationwide resource conservation groups, newspaper, radio and television corporations, or similar entities.

FACTOR 7, PURPOSE OF CONTACTS

Purpose of personal contacts ranges from factual exchanges of information, to situations involving significant or controversial issues and differing viewpoints, goals, or objectives. The personal contacts which serve as the basis for the level selected for this factor must be the same as the contacts which are the basis for the level selected for Factor 6.

Level 7-1 -- 20 Points - Contacts are largely to obtain information concerning assigned activities or to provide factual information, e.g., to provide interpretative services or to promote agency objectives such as cleanup of picnic sites or to promote fire prevention; to provide information to prospective timber purchasers on the requirements for purchase and sale of timber; or to acquaint livestock owners with the rules governing use of public grazing land.

Level 7-2 -- 50 Points - Contacts are to inspect work and monitor activities of special users; to discuss technical requirements of contracts in order to resolve problems concerning contract stipulations and to reach agreement concerning differences as to appropriate or allowable practices; to coordinate work with other foresters, technical resource specialists, engineers, etc.; and to promote utilization and conservation principles and activities.

Level 7-3 -- 120 Points - Contacts are to negotiate controversial issues with various parties in a way that will obtain agency objectives and result in retention of good will; to influence or persuade various organizations or individuals who have conflicting interests and viewpoints on the use (or non-use) of various resources so as to reach an agreement which is consistent with technical as well as practical goals and objectives; to justify the feasibility and desirability or significant forestry resource plans and proposals; or to influence or persuade other experts to adapt techniques or methods about which there may be conflicting opinions.

Level 7-4 -- 220 Points - The contacts are to justify, defend, negotiate, overcome resistance, or settle highly significant or controversial land management matters. The work may include professional conferences, legislative hearings, land-use presentations, or similar meetings where the resolution of the issue usually involves a long range impact beyond the specific issue or geographical area involved.

FACTOR 8, PHYSICAL DEMANDS

The "Physical Demands" factor covers the requirements and physical demands placed on the forester by the work assignment. This includes physical characteristics and abilities (e. g., specific agility and dexterity requirements) and the physical exertion involved in the work (e. g., climbing, lifting, pushing, balancing, stooping, kneeling, crouching, crawling, or reaching). To

some extent the frequency or intensity of physical exertion must also be considered, e.g., a job requiring prolonged standing involves more physical exertion than a job requiring intermittent standing.

Level 8-1 -- 5 Points - The work is usually performed in an office setting. The forester may occasionally visit forest areas where he/she does considerable walking, bending, or climbing, but this is not a frequent enough occurrence to warrant the next higher level.

Level 8-2 -- 20 Points - The work requires regular and recurring work in a forest area where there is considerable walking, bending, or climbing, often over rough, uneven surfaces or mountainous terrain.

FACTOR 9, WORK ENVIRONMENT

The "work Environment" factor considers the risk and discomforts in the employee's physical surroundings or the nature of the work assigned and the safety regulations required. Although the use of safety precautions can practically eliminate a certain danger or discomfort, such situations typically place additional demands upon the employee in carrying out safety regulations and techniques.

Level 9-1 -- 5 Points - Work is usually performed in an office setting, although there may be occasional exposure to the risks described at the next higher level, when visiting forest areas.

Level 9-2 -- 20 Points - There is regular and recurring exposure to moderate risks and discomforts such as very low temperatures, adverse weather conditions, falling limbs or trees, and similar situations. Employees usually must wear protective equipment in the forest area.

OPM BENCHMARK DESCRIPTIONS

FORESTER, GS-0460-05; BMK #1

Duties

As a trainee forester, performs duties which are designed to provide experience and training in the application of basic scientific forestry principles and theories to a variety of well defined forestry work situations, and orientation in agency policies and procedures. Some assignments may be similar to those assigned to nonprofessional employees, but they are performed primarily for developmental purposes. Work may be performed in any of the following areas:

- Assists higher grade foresters, in timber management activities: runs sale boundaries, makes cruise maps showing timber types and land features, marks timber in accordance with silvicultural practices and the current timber management plan.
- Assists in range management activities by inspecting range allotments, observing and recording range conditions and use patterns.
- Participates in recreation management activities by investigating areas for possible development and making recommendations as to use or nonuse.

Factor 1, Knowledge Required by the Position - Level 1-5 -- 750 Points

Knowledge of professional forestry concepts and principles such as would be acquired through a bachelor's degree program in forestry and which would enable the forester to perform trainee-level duties.

Factor 2, Supervisory Controls - Level 2-1 -- 25 Points

The supervisor assigns work with specific and detailed instructions. The forester works in accordance with the instructions and is not expected to make final decisions or commitments except on the routine work previously covered by instructions. Work is reviewed in progress and upon completion for accuracy and adherence to instructions.

Factor 3, Guidelines - Level 3-1 -- 25 Points

Guidelines include agency manuals, technical manuals and guidebooks, directives, and local work plans, supplemented as necessary, which are detailed and directly applicable.

The trainee works in strict adherence to the guidelines and consults with the supervisor or experienced forester for any required deviations.

Factor 4, Complexity - Level 4-2 -- 75 Points

Assignments consist of specific tasks which are designed to orient the trainee in the application of forestry theory and basic principles.

The tasks are routine and usually entail readily identifiable phenomena and environmental conditions. In some cases, the forester performs part of a project handled by a higher graded forester.

Factor 5, Scope and Effect - Level 5-1 -- 25 Points

The purpose of the work is to orient the forester in the practical application of scientific theory, and to provide experience in dealing with the timber species native to the forest area. The effect of the work is to aid in the completion of assignments of other foresters in the immediate unit.

Factor 6, Personal Contacts - Level 6-1 -- 10 Points

Contacts are with employees in the immediate units, and with residents, users, or visitors. These contacts are typically in the company of more experienced employees.

Factor 7, Purpose of Contacts - Level 7-1 -- 20 Points

Contacts are to provide information on the location of facilities, to explain rules and procedures for the use of Federal land, and to answer general questions.

Factor 8, Physical Demand - Level 8-2 -- 20 Points

The work requires regular work in a forest area where there is considerable walking over rough or mountainous terrain.

Factor 9, Work Environment - Level 9-2 -- 20 Points

There is regular exposure to moderate risks and discomforts such as adverse weather conditions, falling limbs, etc. These require protective clothing.

TOTAL POINTS -- 970

FORESTER, GS-0460-07; BMK #1**Duties**

Performs specified portions or limited phases of multiple-use management plans and projects for an area of forest land. Assignments are of limited scope; are designed to develop and broaden the forester's professional knowledge; are typically screened to eliminate difficult or unusual problems. Work may be performed in any of the following areas:

- Conducts cruises of timber stands to determine such things as volume of merchantable timber, species composition, accessibility, and environmental constraints.
- Prepares various timber sale contract and location maps and plats using cruise data, other survey material, and aerial photos. Delineates physical features and cutting areas.
- Prepares tentative sales plan. Participates in scouting of, and makes recommendations for, the location of sale roads.
- Lays out sale boundaries from approved timber sale plans and determines the selling value of the timber.

- Inspects timber sale area for conformance with contract and permit regulations. Prepares a written report of inspections noting observed operating deficiencies and recommendations for correction.
- Conducts inspections of campgrounds and other developed recreation areas to determine that sites are adequate and well maintained. Assists in planning of potential recreation sites by collecting and summarizing data.
- Examines field areas where application has been made for special use permit to observe and report on location, boundary lines, and information on forest resources.
- Collects and summarizes watershed data; makes studies of wildlife and range forage such as habitat analysis and damage to forage. Reports observations and makes recommendations to supervisor.
- Participates in administration activities such as personnel management, budgeting, etc., to develop understanding of this phase of management and broaden administrative ability.

Factor 1, Knowledge Required by the Position - Level 1-6 -- 950 Points

- Professional knowledge of scientific forestry principles and concepts sufficient to apply standard forestry practices in the completion of projects involving limited phases of the design, layout, and inspection of timber sales.
- Limited knowledge of related disciplines such as soil science and hydrology sufficient to evaluate logging operations as they relate to the current environmental conditions and the protection of the environment.

Factor 2, Supervisory Controls - Level 2-2 -- 125 Points

The supervisor provides information for each assignment such as a timber sale (pre-sale or sale administration) by indicating such things as the problems encountered on similar terrain in the past, particular environmental conditions to be aware of, or problems encountered with the particular buyer or logger in past sales; and suggests ways to overcome or solve problems.

The forester plans the detailed steps and practices necessary to collect and analyze data and drafts tentative sales plans, appraisals and contracts. The forester consults with the supervisor and asks for assistance if unusual or unfamiliar conditions or other problems occur.

The supervisor reviews the work for adequacy, accuracy, additional developmental needs and adherence to instructions. On new assignments, the supervisor reviews the methodology proposed by the forester prior to inception.

Factor 3, Guidelines - Level 3-2 -- 125 Points

The forester has detailed and usually directly applicable guides available such as annual work plans, compartment prescriptions, manuals, standard forestry textbooks, and data on precedents in the particular forestry area.

The forester exercises judgment in selecting and applying particular guidelines, in situations such as (a) locating information to carry out the pre-sale activity and (b) deciding whether logging operations conform to all contract specifications, such as those pertaining to fire prevention, protection of soil and water, and road maintenance and use. If it appears that the environmental conditions require significant deviations, the forester makes recommendations to the supervisor.

Factor 4, Complexity - Level 4-3 -- 150 Points

Assignments consist of such tasks as cruising timber stands, developing appraisals, preparing sales plans and contracts, and inspecting and reviewing logging operations. These are designed to provide varied experience as a foundation for future professional responsibility. The forester must consider the existing conditions of soil, water, timber, and other resources, their interrelationship, decide whether any changes have occurred since a prescription was written for the area, and how such changes affect the approved timber plan. Work may require selecting alternative methods of operation or land treatment, but traditional forestry techniques and practices may be applied in most situations encountered.

Factor 5, Scope and Effect - Level 5-2 -- 75 Points

The purpose of the work is to collect necessary data for, and complete documents relating to, land management activities and to review implementation of these activities. Work efforts affect the fulfillment of the multiple-use objectives on the forest unit.

Factor 6, Personal Contacts - Level 6-2 -- 25 Points

The contacts are with the general public, permittees, other forest users, and employees in the agency, including other organizational units.

Factor 7, Purpose of Contacts - Level 7-1 -- 20 Points

Contacts are to provide information, to overcome routine problems encountered, or to obtain data.

Factor 8, Physical Demands - Level 8-2 -- 20 Points

The work involves considerable walking, or climbing over rough or mountainous terrain.

Factor 9, Work Environment - Level 9-2 -- 20 Points

There is regular and recurring exposure to adverse weather conditions and to risks associated with field activities.

TOTAL POINTS – 1510

FORESTER, GS-0460-09; BMK #1**Duties**

Serves as a principal resource management assistant in a first level unit of a forest area with responsibility for the development of annual work plans and the execution and administration of short-range plans relating to the recreation and land use program activities.

- Conducts surveys and studies of existing dispersed and developed recreation facilities and their present use and demand.
- Recommends potential sites for additional recreational use and planned development with suggested priorities for development. Prepares or assists in the preparation of environmental analysis reports including impact of proposed recreational sites on other resources such as soil, water, timber, range, and wildlife.
- Plans and oversees construction of recreation site interior roads and minor access roads in consultation, as necessary, with engineering personnel.
- Compiles material and supply estimates, or oversees compilation of estimates, for recreation facilities construction and maintenance. Prepares contract specifications for recreation construction clean-up maintenance projects. Prepares budgetary plans and controls for the recreation functions.
- Inspects recreation uses, mineral operations and other land uses for compliance with terms of use-permit. Processes summer home applications and waivers. Confers with permittees or operators and attempts to gain compliance.
- Negotiates with private landowners and/or mining claimants to secure rights-of-way deeds or easements for construction of roads and trails.
- Conducts preliminary examinations and appraisals of specified areas of privately owned lands offered for exchange, purchase, or donation. Collects and analyzes data concerning suitability and estimated values for such uses as consolidation of forest land, recreation, or other resource uses.

Factor 1, Knowledge Required by the Position - Level 1-6 -- 950 Points

- A professional knowledge of scientific forestry principles and concepts and a practical knowledge of conventional methods and techniques sufficient to undertake routine forestry management projects involving recreational resource use and development, minerals and other special land uses.
- Knowledge sufficient to interpret the effect and impact of any change in the level or type of use of recreation resources on other forest resources such as timber, wildlife, soils, and water.
- Limited knowledge of land use and appraisal techniques as they relate to exchange, purchase, or donation of rural lands.
- Limited knowledge of hydrology and soils as they relate to recreation resource use and development.
- Knowledge of agency policies, procedures, and statutory requirements concerned with the multiple-use and sustained yield of forest resources.

Factor 2, Supervisory Controls - Level 2-3 -- 275 Points

The supervisor identifies boundaries of the project assignments, critical deadlines, and the overall nature of the expected results.

The forester independently plans the steps and techniques necessary to complete the assignments in accordance with established forestry practices and techniques. Where unusual or unconventional environmental conditions are encountered, or where the problems require modification of established local practices, such as a significant increase in undeveloped area recreation use affecting the timber and water resources, the forester generally discusses the action he/she plans to take beforehand with the supervisor.

The supervisor reviews the work for technical adequacy and soundness, and accomplishment of overall objectives.

Factor 3, Guidelines - Level 3-3 -- 275 Points

There are a number of guides available including the approved short-range resource action plans which provide guides (as well as constraints) on such matters as actions to be taken and timing of the action. However, the guides are not specific to the on-the-ground conditions that exist at any point in time, or to the handling of particular problems on a specific developed recreational site. Additionally, the forester must consider the effect of a proposed action on other resources and decide whether the proposal has a complementary or conflicting effect on these resources.

The forester, in view of the considerations listed above, must select from alternative methods or approaches which appear appropriate to the existing situation, and make or recommend compromises required by technical considerations.

Factor 4, Complexity - Level 4-3 -- 150 Points

The assignments involve various duties concerned with resource inventory, analyses of existing conditions and development of annual work plans, as well as the execution and oversight of such plans in the primary areas of recreation and land use.

Complicating features of the resources include seasonally heavy use of recreation facilities, the exploration activities of several large companies for oil and gas, and the conflicts with other resources, such as the heavy ding use of unit lands. Recreational uses include a moderate number of summer homes, overnight camping, hiking, picnicking, hunting and fishing. There are some producing oil and gas wells on the unit, with continuing exploration, and additional extraction of limestone, sand and gravel, and building stone. Special uses are chiefly concerned with water transmission lines, rights-of-way and telephone or utility lines.

The problems associated with the lands and recreation resource programs have substantial precedents and are amendable to the application of standard techniques and practices.

Factor 5, Scope and Effect - Level 5-3 -- 150 Points

The purpose of the position is to oversee the planning, administration, and execution of the recreation and land use program of the forest unit.

The approaches to, or solutions used for problems associated with these programs directly impact on other resource programs in the forest area for which the incumbent has no direct responsibility (e.g., timber and watershed). The efficiency, therefore, of the multiple-use management of all resources on the forest unit, and the economic or social well-being of the public which is dependent on the use of the forest resources are directly affected by the actions planned or taken by the forester responsible for the recreation and land use programs.

Factor 6, Personal Contacts - Level 6-2 -- 25 Points

The contacts usually occur in a moderately unstructured setting and are with other professional foresters, specialists in other resource areas such as wildlife biologists, with permittees, with special interest groups such as recreation or wilderness associations, and with contractor personnel.

Factor 7, Purpose of Contacts - Level 7-2 -- 50 Points

The contacts are to inspect work, to conduct training, to coordinate recreation and land use requirements, to monitor user activities, to obtain compliance with permits and contracts, and to assure protection of the forest areas.

Factor 8, Physical Demands - Level 8-2 -- 20 Points

The work requires some physical exertion such as walking over rough, uneven, or rocky terrain.

Factor 9, Work Environment - Level 9-2 -- 20 Points

The work involves moderate risks or discomforts associated with working in a forest area under all types of weather conditions.

TOTAL POINTS – 1915

FORESTER, GS-0460-09; BMK #2**Duties**

Serves as a staff specialist in a first level unit with responsibility for recommending short-range plans and executing these plans for the unit's compartment examination (compartment -- a small subdivision or unit of land designated for land management planning purposes and silvicultural operations), reforestation and timber stand improvement components of the timber management program.

- Conducts examinations of timber compartments and stands on the unit and evaluates the conditions found. Makes or recommends basic land management decisions based on these evaluations.
- Develops silvicultural prescriptions and action plans for timber stand improvement and reforestation development work using aerial photographs and on-the-ground observation and measurement.
- Recommends and executes annual plans for the timber harvest program. This includes sale design, layout, cruising and marking in accordance with approved environmental analysis reports.
- Participates in the preparation and execution of financial and program work plans by estimating, combining, and coordinating project plans into an annual schedule of work for the entire unit.
- Prepares multiple-use compartment prescriptions and environmental analysis reports based on field examinations.

Factor 1, Knowledge Required by the Position - Level 1-6 -- 950 Points

- A professional knowledge of forestry science principles and practices including silviculture, compartment examination, and timber harvesting procedures sufficient to prescribe proper silvicultural treatment.
- Knowledge of current reforestation techniques and procedures sufficient to adapt them to local conditions.
- A limited knowledge of forestry related disciplines such as hydrology, soils, plant pathology, entomology, wildlife habitat management, sufficient to recognize how they relate to silviculture issues and to recognize when specialized advice is needed.

Factor 2, Supervisory Controls - Level 2-3 -- 275 Points

The supervisor outlines program objectives and the material, financing and personnel available. The forester, supervisor, and other staff members consult on coordination of work plans into the unit's annual work plans.

The forester acts independently on all matters within the scope of the position and makes decisions within established policies, plans, and objectives. Keeps supervisor informed of all activities. Refers only the most unusual problems to supervisor for assistance.

Work is spot checked for technical compliance and accomplishments are reviewed for adequacy during quarterly reviews and on-the-ground inspections.

Factor 3, Guidelines - Level 3-3 -- 275 Points

Guidelines are usually applicable and include policy and procedure manuals and handbooks, standard professional practices, published research results, annual work plans, long-range timber management plans, and oral instruction from the supervisor. However, the guides may not address specific sets of circumstances found on-the-ground. The forester must consider the impact of decisions on other resource values and administrative issues.

The forester uses professional judgment to select from a number of apparent alternatives to identify the alternative or compromise that best satisfies timber management considerations as well as the total environmental considerations.

Factor 4, Complexity - Level 4-3 -- 150 Points

The primary assignment is to inventory timber stands and to prescribe the management practices that should be applied.

The forester's decisions and evaluations consider the need for (a) timber harvest, silvicultural system and cutting methods used, (b) sale layout and design, (c) transportation system

development, (d) timber stand improvement (e) site preparation and reforestation, (f) soil and water resource protection and rehabilitation, (g) recreation resource development and protection, (h) management and enhancement of the visual resource, (i) mineral and special land use development and management, along with protection and enhancement of all other environmental factors. Recommends plans and priorities for the management of the resources.

The forest area has characteristics which present few unique problems. Concerns for the environmental features and socioeconomic characteristics typically are satisfied by application of standard practices.

Factor 5, Scope and Effect - Level 5-3 -- 150 Points

The purpose of the work is to prepare standard plans, contributing to the effect and efficient management of forest lands. The forester's work affects all resource values but particularly the timber resource and the attainment of the timber management objectives.

The work will affect the quantity and quality of future timber which will in turn affect the economic well being of local communities and industries.

Factor 6, Personal Contacts - Level 6-2 -- 25 Points

Contacts are with technicians and other professionals on the unit and with specialists at the next higher office level as well as with State agency foresters, biologists, and game wardens. Some contacts are with adjacent landowners, the general public, and contract loggers.

Factor 7, Purpose of Contacts - Level 7-2 -- 50 Points

Contacts are to involve others in the process of prescribing the proper treatments for land areas; to obtain advice and commitment from managers or prescribed treatments on stand of trees and areas of land and to explain, monitor, and promote agency programs.

Factor 8, Physical Demands - Level 8-2 -- 20 Points

Field work requires long periods of time walking over rough brush or tree covered, possibly wet or snow covered terrain.

Factor 9, Work Environment - Level 9-2 -- 20 Points

Much of the work is performed outdoors. Exposure to extremes of hot, cold, rainy, and snowy weather are common. The outdoor work requires the use of special safety equipment such as hard hats and hard toed boots.

TOTAL POINTS -- 1915

FORESTER, GS-0460-11; BMK #1

Duties

Serves as staff specialist in a second-level unit with primary responsibility for such recreation programs as recreation-related, special uses and trail use and maintenance.

- Provides expertise and advice to operating-level units in the administration of existing recreation special uses including type and standard of service provided and permittee relations. Reviews applications for new permits or revisions of existing permits for recreation special uses and recommends action. Insures that action under approved uses, such as site construction, is consistent with the terms of the permit. Coordinates activities between units and between engineers and other specialists to ensure consistency in program emphasis, development, and use between operating units.
- Provides expertise and advice in assessing current trail use, type and standards, and in long-range planning, maintenance, and relocation. Reviews new projects or proposed revisions of the existing trail system and coordinates action between operating units and engineering on approved projects.
- Develops information for the recreation information management system. This includes data, location, condition, costs, history, potential developments, and related items. Monitors and reviews outputs and directs the continued maintenance of the system.
- Advises operating units on the need for development of recreation management composite plans. Makes field reconnaissance, provides expertise and advice as requested on various types of recreation-related programs, which may include wilderness recreation, national recreation or historical trails, development of new sites, expansion or other modification of existing developed sites, and maintenance.
- Coordinates the recreation budget. Reviews lower unit requests to insure they do not exceed needs as shown in the information system, coordinates needed adjustments with requesting units and budget personnel. Collects data, analyzes program needs, and recommends action to maintain balanced budget for the second level recreation staff.

Factor 1, Knowledge Required by the Position - Level 1-7 -- 1250 Points

- Knowledge of professional forestry land management principles, practices, and concepts sufficient to (1) analyze and advise on the development and execution of recreation and trail use plans and programs, (2) evaluate the effects of recreational use on other forest resources and requirements, such as aesthetics, timber and wildlife, and (3) evaluate forest land areas and their potential for recreation activities relative to existing use.
- Knowledge of agency land management policies and procedures sufficient to insure the plans and programs devised are consistent with such policies and procedures.

- Knowledge of trends in outdoor recreation interests, habits, and needs of diversified groups. Skill in devising means for meeting these needs within the constraints of other forest resources.
- Knowledge of trail use and construction and maintenance standards and the development of plans and programs.
- Familiarity with related fields such as landscape architecture, timber management, hydrology, soils, and wildlife sufficient to use techniques and knowledge from these disciplines in the analysis of plans and programs.
- Knowledge of administrative procedures including programming and budgeting of resource programs. Expert knowledge of the recreation information management system of computerized recreation-related data, to develop input and to maintain the system.

Factor 2, Supervisory Controls - Level 2-4 -- 450 Points

The supervisor provides a general statement of objectives; the forester and the supervisor generally confer on the relative order of priority for various assignments and the tentative deadlines for obtaining the objectives.

The forester is responsible for developing specific action plans and the methods and procedures for carrying out plans; resolving problems and conflicts as they arise; and coordinating work with other staff members. Projects that may involve a new direction in operating practices or a significant break with long standing practice are discussed with the supervisor during occasional staff meetings or conferences.

Completed work is reviewed for adequacy in meeting program objectives and compliance with established policies, regulations, and the overall land management plans.

Factor 3, Guidelines - Level 3-3 -- 275 Points

Guidelines include such matters as agency policy and procedure manuals, supplemental guides, approved land management and long-range functional resource plans, and professional journals and publications. The forester uses judgment and ingenuity in developing and implementing plans and programs and administering and overseeing the programs. The guides do not provide specific instructive information on handling the range of situations encountered in carrying out the assignments, e. g., the effects of social, economic, and/or political trends on the recreational needs and desires of the various publics, and the effect or influence of these factors in the area of land use and valuation. The forester independently adapts or extends the guidelines, or chooses from among alternative procedures in attempting to achieve optimum multiple-use and protection of the ecosystem.

Factor 4, Complexity - Level 4-4 -- 225 Points

Assignments involve development, implementation, and administration of plans and methodology connected with recreation special uses, wilderness, and trails management.

The forester must consider a number of variables in developing the plans and carrying them out. The area is under intensive use as a recreation resource, in part because of the physiographic features of the forest area itself, and also because of its proximity to other major recreation and visitor oriented attractions, including national parks, and wilderness areas. This leads to conflicting pressure from preservation groups and those who seek "active" development and use of the forest resources.

The assignments require the incumbent to interpret available data in terms of the variables involved, the effect on other resources, the rationale of the competing interests, and to extend, modify, or otherwise adapt procedures, to resolve complex issues.

Factor 5, Scope and Effect - Level 5-3 -- 150 Points

The purpose of the work is to maintain second-level oversight by providing advice and assistance to first-level units, and to direct information and reporting systems in the recreation, recreation-related special use, and trail programs.

The work affects the recreational opportunities for local population and visitors, and the quality of recreational experiences. It also affects the timeliness and efficiency of recreational facility construction and maintenance.

Factor 6, Personal Contacts - Level 6-3 -- 60 Points

Contacts are with other foresters and specialists in related and unrelated fields, with permittees, ad hoc special interest groups, local elected officials, and with the general public.

Factor 7, Purpose of Contacts - Level 7-2 -- 50 Points

Contacts are to review the work of forest area employees and permittees to ensure correctness of methodology, for compliance with agreements, and safety of operation; to reconcile, to the extent possible, conflicting viewpoints and ideas; and to explain and gain support for agency aims, policies, and objectives.

Factor 8, Physical Demands - Level 8-2 -- 20 Points

A considerable amount of physical activity is required while making on-the-ground examination or inspections of on-going operations, including walking and climbing over rough terrain, steep trails, etc.

Factor 9, Work Environment - Level 9-2 -- 20 Points

The work involves some degree of risk when involved in on-the ground assessment of operations or the condition of possible use of forest land, including risks associated with moving machinery or equipment and the rugged topography.

TOTAL POINTS -- 2500

FORESTER, GS-0460-11; BMK #2

Duties

Serves as a staff specialist in a first level unit or in a combination of 2 or more such units with responsibility for the development, planning, and application of silvicultural methods and practices which are directed toward establishment of new timber stands or optimization of growth on existing timber stands.

- Makes on-the-ground examinations and analyses of forest areas to determine which areas require short or long-range cultural treatment in terms of the total ecosystem.
- Provides advice, technical support, and evaluation of proposed and on-going timber sale programs to prevent loss of timber productivity and damage to the environment.
- Reviews and approves project plans for special administrative studies of silvicultural methods and techniques in planting, seeding, site preparation, timber stand improvement, and tree and shrub improvement projects.
- Plans, coordinates, and administers the technical phases of forest area planting and seeding programs, including the inventory of plantable areas.
- Plans, coordinates, and evaluates the timber stand improvement program; prescribes cutting practices based on an examination of stand conditions and aesthetic or other resource requirements; consults with other specialists such as landscape architects, as required.
- Inspects all phases of field reforestation and stand improvement projects; appraises the degree of conformance with policies, procedures, and silvicultural plans; and recommends corrective action as required.
- Participates in preparation and review of environmental analysis reports and environmental impact statements.
- Coordinates silvicultural needs with principal resource management assistants.
- Maintains liaison with employees of Federal and State governments, local officials, and private organizations or land owners who are affected by, or otherwise have a shared

interest in, the forest land management practices and problems in the forest area; provides technical assistance on mutual reforestation problems.

- Plans, coordinates, and conducts training meetings on silvicultural principles and practices, including planting and seeding procedures, ground and seedbed preparation techniques, timber stand improvement techniques, and control of animals, insects, or diseases affecting reforestation and regeneration programs.

Factor 1, Knowledge Required by the Position - Level 1-7 -- 1250 Points

- Knowledge of professional forestry land management principles, practices, and concepts sufficient to perform full range of duties connected with the development and implementation of silvicultural land management treatments.
- Knowledge of silvics, dendrology, reforestation methods, timber stand improvement principles and techniques, and harvest systems; familiarity with related fields such as wildlife habitat management, landscape architecture, plant genetics, hydrology, soil science sufficient to develop silvicultural prescriptions which provide solutions to complex problems covering an array of environmental conditions on varied forest units.
- Knowledge of the interrelationship of physical factors (including climate characteristics such as temperature, precipitation, and movement and composition of the air, and soil conditions such as texture, structure and depth, moisture capacity and drainage, and nutrient content) and biological factors (including plant and animal association, genetics, fungi, and soil micro-organisms) and their various influences on the kind and timing of silvicultural treatment necessary and appropriate to achieve multi-use land management objectives.
- Knowledge of agency land management policies and procedures sufficient to ensure that silvicultural plans and programs are consistent with such policies and procedures.

Factor 2, Supervisory Controls - Level 2-4 -- 450 Points

The supervisor sets the overall objectives and program emphasis and works with the employee in developing the project priorities.

The forester is responsible for independently planning the work, analyzing the environmental conditions and other considerations involved, determining the appropriate treatment, preparing the silvicultural prescription and/or environmental analysis report, coordinating and implementing the approved silvicultural plan with operating personnel staff, and ensuring that the prescribed approach is followed. The forester keeps the supervisor informed of probable direction of treatments to especially sensitive or controversial areas, e.g. an area which has been the subject of previous hearings, appeals, or court suits.

Completed work is reviewed for effectiveness in meeting work objectives, and for compatibility with local land management objectives and agency policies.

Factor 3, Guidelines - Level 3-3 -- 275 Points

Guidelines include such matters as agency policy and procedure manuals, supplemental guides, approved land management and long-range functional resource plans, and professional journals and publications.

The guidelines available generally outline the major factors that are critical for regeneration, establishment, and growth of each species. There are limitations, however, on the extent to which any particular treatment or system or variation of them can be used in a particular forest type or stand. Also, gaps exist in the available silvicultural knowledge, e.g., there may be 5 to 7 ways to thin a particular stand, or the effect of thinning young stands of certain species to improve the quality and growth rate of the stand may not be fully known and documented. In some instances, there is a degree of uncertainty about a particular approach, and the forester cannot be "sure" that the "right" decision was made until the forest is ready for harvest well into the future.

The forester must use judgment on deciding how or how much to modify the environment to achieve the desired land management objectives. The forester analyzes research studies, precedent, and similar material and modifies or adapts approaches as required.

Factor 4, Complexity Level - 4-4 -- 225 Points

The assignments involve developing silvicultural prescriptions, and overseeing the implementation of such prescriptions, for a number of differing management units (or timber stands) in a forest area with an intensive timber management program.

Such prescriptions require consideration of the reproductive behavior and the diverse nutrient, moisture, and climatic requirements of tree species; the reproductive behavior and requirements of competing vegetation; the varying stand conditions among forest types due to soil and climatic factors and the effects of disease, fire, or human actions; and esthetic, recreational, water, and wildlife objectives which often dictate or modify the choice of silvicultural systems or practices.

There are a number of complicating features present in the forest area that must be considered at various times including characteristics such as: some of the timber stands contain large and valuable trees, but are in parts of the forest area where the terrain is steep, roads are costly to build and maintain, and the risk of erosion or mass movement of soil is serious. These conditions also make the costs of regeneration high and the probability of reforestation low and require a carefully considered cost-benefit analysis. Additionally, significant portions of the forest area are in need of extensive rehabilitation due to overuse, extensive damage from insect infestation, and, in part, lack of sufficient economic resources for an aggressive timber stand improvement program. The forest area involves a number of mixed timber stands consisting of various species, types, and ages with concomitant variations in stumpage values and requirements for alternative cutting practices. The forester must independently assess the affect and interrelationship of the various economic and environmental variables and select, adapt, or

otherwise modify conventional practices as required by the given assignments. The work requires considerable coordination with other forest staff and with specialists in other disciplines' such as wildlife biologists, hydrologists, and landscape architects.

Factor 5, Scope and Effect - Level 5-3 -- 150 Points

The purpose of the work is to design plans and silvicultural systems which optimize environmental conditions favoring development of particular species best suited to the site, in accordance with resource program emphasis designated in approved land management plans. The work has a significant impact on long term management of the first level operating unit and the recommended decisions affect a number of resource programs; e.g., the type of cutting practice recommended for a stand creates a specific type and amount of edge. The shape and size of the edge affects the different forms of cover and food which in turn influences the composition of wildlife in the area due to differing requirements for diet and shelter. Additionally, the work affects the achievement of sound land and timber management goals; i.e., the forester is responsible for identifying stands that should not be cut due to the environmental impact.

Factor 6, Personal Contacts - Level 6-3 -- 60 Points

Personal contacts are with representatives of other Federal and non-Federal agencies, natural resource educators at local universities, contractors, loggers, and members of the public.

Factor 7, Purpose of Contracts - Level 7-2 -- 50 Points

The purpose is to maintain cooperation, resolve mutual reforestation problems or conflicts with other resources, such as wildlife, and to provide technical advice and coordination on operating problems concerned with timber harvests.

Factor 8, Physical Demands - Level 8-2 -- 20 Points

A considerable amount of physical activity is required while making on-the-ground examinations or inspections of on-going operations, including walking and climbing over rough terrain.

Factor 9, Work Environment - Level 9-2 -- 20 Points

Work requires exposure to some risks involved in logging operations, sometimes in adverse weather conditions. Safety precautions are required, and the employee must wear protective equipment while making on-the ground inspections.

TOTAL POINTS – 2500

FORESTER, GS-0460-11; BMK #3

Duties

Serves as a principal resource management assistant in a first level unit of a forest area with responsibility for the development, implementation, and administration of the timber management and insect and disease control program.

- Develops overall forest area timber plans based on an on-the-ground inventory of sample plots and stands, maps, aerial resource photography, and computer reports in order to implement the approved timber sale program.
- Reviews and makes overall appraisal of the forest area timber resource to determine the area's capacity to meet allowable cut/public demand and future needs as well as the protection and regeneration of the resource.
- Reviews silvicultural prescriptions to ensure that plans, treatment, and harvesting techniques are compatible with long-range timber management plan.
- Oversees development of the timber sale preparation program including a determination of best access routes, location of cutting units, and that logging methods are consistent with transportation and silvicultural plans.
- Determines and coordinates staffing and equipment needs required to carry out sales layout program; oversees cruising and marking of timber; determines sales volume; oversees preparation of timber sale reports and appraisals; and prepares timber sale contracts. Provides for protection of water retention capacity of the soil and reestablishment of the forest growth to prevent or minimize soil erosion damage; adjusts cutting plans to include control measures necessary to prevent the spread of insects or disease and to salvage infested or infected timber.
- Reviews logging plans with operator to ensure common understanding of contractual requirements.
- Inspects logging operations to ensure fulfillment of silvicultural objectives and assure that watershed, recreational, aesthetic, and wildlife values are protected, and contract stipulations are observed.
- Investigates reports related to marginal or improper logging activities such as improper cutting practices, cutting of unauthorized timber, destruction or damage to residual stands or reserve trees, and disputed interpretations of contract intent covering such actions on the part of the timber purchaser operator. Negotiates or directs changes in operations as required and appropriate.

- Coordinates with other principal resource (or subject-matter) assistants, and with specialists in other disciplines, to ensure coordination and integration of the timber management plan with other resources and activities and with the approved land management plans. Prepares or assists in preparation of, as appropriate, draft environmental impact statements or environmental analysis reports.
- Analyzes timber management operating plans; determines financial needs of the resource program and prepares recommendations for budgetary requirements of equipment, material, and personnel; documents work progress and accountability of the timber resource program activity.
- Assists in overall administration of the forest area including safety, information and education, and overall work planning and functional management.

Factor 1, Knowledge Required by the Position - Level 1-7 -- 1250 Points

- Knowledge of professional forestry land management practices and concepts, aerial photo interpretation techniques and principles, and forest economics and valuation sufficient to develop and execute timber management, and insect and disease control plans and programs in a forest area.
- Knowledge of reforestation methods, timber stand improvement principles and techniques, and harvesting systems sufficient to devise solutions to complex problems on varied (biologically and physically) units in a forest area.
- Familiarity with related fields such as landscape architecture, hydrology, soil science, wildlife habitat management, and entomology sufficient to incorporate considerations from these disciplines in the timber management planning process and plans.
- Knowledge of agency land management policies and procedures sufficient to ensure that timber management and insect/disease control plans and programs are consistent with such policies and procedures.

Factor 2, Supervisory Controls - Level 2-4 -- 450 Points

The supervisor outlines overall program objectives and the material, financial, and personnel resources available. The forester and supervisor consult on project priorities and deadlines for specific projects and which work to defer because of limitations on resources.

The forester independently plans the work projects, develops the necessary timber, and insect and disease control plans, coordinates and oversees their implementation, and resolves conflicts with other resource functions and with contractor personnel and permittees.

The work is reviewed only to the extent necessary to determine conformance with timber management objectives and effectiveness in meeting overall land management objectives.

Factor 3, Guidelines - Level 3-3 -- 275 Points

Guidelines include such matters as agency policy and procedure manuals, supplemental guides, approved land management and long-range functional resource plans, and professional journals and publications.

The forester uses judgment and ingenuity in developing and implementing plans and programs, and overseeing the implementation of such programs, as the guides do not provide adequate or specific coverage of the range of variable conditions found in the forest area.

The forester must independently adapt, or extend the guidelines, or choose from among alternative procedures in attempting to achieve optimum multiple-use and protection of the existing ecosystem.

Factor 4, Complexity - Level 4-4 -- 225 Points

The forester prepares, executes, and oversees the implementation of the timber management and insect/disease control plans using data from various sources, and assures that the plans are consistent with the requirements of other resource plans and programs and with the overall approved land management plans.

The forester must consider many variables in preparing and executing timber management functional resource plans and the insect/disease control programs, e.g., (1) the purpose of particular sales, i.e., are they designed to remove a stand that is windblown or affected with disease, or are they designed to facilitate regeneration; (2) the interplay of short and long term objectives, i.e., the sale of current inventory and the production of future supply; (3) the costs of road construction and the type, amount, and location of existing roads; (4) the physical and biological features of the area; (5) the other resources affected; and (6) the socio-economic effects of a particular action.

The forest area has a heavy timber management program with complex cut and harvesting problems due to such factors as steep terrain with significant amounts of unstable soils; varying elevations; a number of sensitive-visual and travel zones requiring careful planning because of the aesthetic and recreational values involved; a contiguous wilderness area; and the fact that the greater part of the economic support of the community (employment and related industry and commerce) is geared to the continued availability of timber. The forest area and the timber activity are a source of controversy among various interest groups because of the conflicts inherent in the economic dependency on the one hand and the wilderness and special influence zones on the other.

Factor 5, Scope and Effect - Level 5-3 -- 150 Points

The purpose of the position is to assure effective development, protection, and utilization of the timber resource. The results of the work affect the supply of timber, the effective utilization of

the resource in meeting sustained yield and allowable goals, and the socio-economic well being of dependent communities and industry.

Factor 6, Personal Contacts - Level 6-3 -- 60 Points

Contacts are with foresters within the unit, in adjoining units, and at higher organizational levels. Contacts are also with local community leaders, representatives of professional and industrial wood product and forestry organizations, contractor and logging personnel, and the general public.

Factor 7, Purpose of Contacts - Level 7-3 -- 120 Points

Contacts are to negotiate agreements and contracts; to investigate and resolve complaints, misunderstandings, and operational problems; to interpret contractual clauses; to reconcile conflicting viewpoints, and to promote multiple-use aspects of forest resources.

Factor 8, Physical Lends - Level 8-2 -- 20 Points

A considerable amount of physical activity is required while making on-the-ground examinations or inspections of on-going operations, including walking and climbing over rough terrain.

Factor 9, Work Environment - Level 9--2 -- 20 Points

Work requires exposure to some risks involved in logging operations, sometimes in adverse weather conditions. Safety precautions are required, and the employee must wear protective equipment in the forest area.

TOTAL POINTS – 2570

FORESTER, GS-0460-11; BMK #4

Duties

Serves as a principal resource management assistant in a first level unit of a forest area with responsibility for the development, implementation, and administration of the total recreation, land adjustment and classification, and land-use and minerals management programs.

- Develops special and detailed recreation resource plans based on special surveys and studies and computer generated information, including data on long-range expectations in volume and kind of use of recreational resources.
- Evaluates and makes preliminary plans for major projects within assigned functional area such as ski area development, building of microwave stations and energy transmission

- lines on forest land, and water diversion projects. Working with an interdisciplinary team, assesses impacts on forest resources such as soil, water, timber, range, and wildlife; prepares or assists in preparation of, as appropriate, draft environmental impact statements or environmental analysis reports.
- Develops resource plans for dispersed and developed recreation sites and uses in accordance with integrated land and resource management plans and esthetic considerations such as visual impact.
 - Develops annual work plan for recreation maintenance and cleanup programs, rehabilitation work on existing facilities, and plans for modifications or additions to established recreation areas.
 - Determines type, amount, and location of work to be accomplished under each program; calculates cost of program based on staffing, equipment, supply, and material requirements.
 - Administers all recreation and land-use permits; prepares environmental analyses reports in conjunction with functional specialists in other disciplines such as geology.
 - Conducts recurring inspections of permittees' operations to determine compliance with terms of permit; corrects discrepancies by personal contact with permittee or, where necessary, recommends legal action to supervisor.
 - Develops plans and procedures for, and administers activities relating to land appraisals, purchases, donations, exchanges, rights-of-way acquisition, title claims and reconveyances, land sales and grants, land transfers, mining claims, and mineral leases and permits. Coordinates with other staff specialists as required.
 - Develops land ownership adjustment plan for the unit based on surveys and on-the-ground knowledge of the area. Recommends land parcels for acquisition and disposal; conducts preliminary examinations and appraisals of specified areas of privately owned lands being offered for purchase, exchange, or donation.
 - Investigates occupancy or mineral trespass cases, prepares trespass reports, and makes recommendation for settlement of cases.
 - Negotiates preliminary agreements with private landowners and mining claimants to secure rights-of-way, deeds or easements for construction of roads, trails, etc., which are required for administration of the forest unit.
 - Develops annual and long-range plans and procedures for watershed protection and development including watershed restoration and rehabilitation utilizing both appropriated funds and cooperative deposits.

Factor 1, Knowledge Required by the Position - Level 1-7 -- 1250 Points

- Knowledge of professional forestry land management principles, practices, and concepts sufficient to develop and execute recreation, land classification, and land and mineral use plans and programs in a forest area; knowledge of agency land management policies and procedures sufficient to ensure that plans and programs devised are consistent with such policies and procedures.
- Knowledge of trends in outdoor recreation interests and needs of diversified groups; skill in devising means for meeting these needs within the constraints of other forest resources.
- Knowledge of forestry sufficient to evaluate the effect of a particular recreational use on other forest resources and requirements particularly timber, wildlife, and aesthetics, and to evaluate forest land areas and their potential for recreation activities relative to existing and planned uses.
- An understanding of mining activities in the forest, and minerals and surface management and their effect on forest resources.
- Familiarity with related fields such as landscape architecture, visual resources, cultural resources, soils, and wildlife sufficient to use techniques and knowledges from these disciplines in the development of plans and programs.
- Knowledge of administrative procedures sufficient to develop work plans and budgetary requirements for the personnel, equipment, and material necessary to enact plans.

Factor 2, Supervisory Controls - Level 2-4 -- 450 Points

The supervisor provides a general statement of objectives; the forester and the supervisor generally confer on the relative order of priority for various assignments and the tentative deadlines for obtaining the objectives.

The forester is responsible for developing specific action plans and the methods and procedures for carrying out plans; resolving problems and conflicts as they arise; and coordinating work with other staff members. Projects that may involve a new direction in operating practices or a significant break with longstanding practice are discussed with the supervisor during occasional staff meetings or conferences.

Completed work is reviewed for adequacy in meeting program objectives and compliance with established policies, regulations, and the overall land management plans.

Factor 3, Guidelines - Level 3-3 -- 275 Points

Guidelines include such matters as agency policy and procedure manuals, supplemental guides, approved land management and long-range functional resource plans, and professional journals and publications.

The forester uses judgment and ingenuity in developing and implementing plans and programs and administering and overseeing the programs. The guides do not provide specific instructive information on handling the range of situations encountered in carrying out the assignments; e.g., the effects of social, economic, and/or political trends on the recreational needs and desires of the various publics, and the effect or influence of these factors in the area of land use and valuation. The forester independently adapts or extends the guidelines, or chooses from among alternative procedures in attempting to achieve optimum multiple-use and protection of the ecosystem.

Factor 4, Complexity - Level 4-4 -- 225 Points

Assignments involve development, implementation, and administration of plans, programs, and methodology connected with recreation, land adjustments, and land use and minerals management.

The forester must consider a number of variables in developing the plans and carrying them out. The area is under intensive use as a recreation resource, in part because of the physiographic features of the forest area itself, and also because of its proximity to other major recreation and visitor oriented attractions, including a national park, major historic sites, a wilderness area, and a big game refuge. The forest area also contains ski runs which are part of a major, privately operated ski area which occupies an area both within and beyond the forest area boundary.

The varied uses tend to conflict and cause serious disagreements among particular interest groups. Many of these controversies are the subject of wide spread publicity (i.e., publicity throughout the State or States in which the forest is located). Additional and rather serious problems occur, such as providing easier access to some of the physical attractions of the forest area (one aim of a recreation program), which by its very nature destroys the esthetic value of the attraction because of the "alteration" of the natural environment necessary to provide access.

The assignments require the forester to interpret available data in terms of the variables involved, the effect on other resources, the rationale of the competing interests, and to extend, modify, or otherwise adapt procedures, usually conventional in nature, to resolve complex issues.

Factor 5, Scope and Effect - Levels 5-3 -- 150 Points

The purpose of the work is to assure effective development and use of the recreational opportunities, the protection of the wilderness area, and the acquisition and disposal of forest and other lands to provide for the fullest public use consistent with overall land management objectives.

The work affects the economic and social stability of the area (e. g., the ski area operators and the local businesses which rely on the heavy visitor demand), and the effective utilization, protection, and/or development of other resources, especially timber and wildlife.

Factor 6, Personal Contacts - Level 6-3 -- 60 Points

Contacts are with other foresters and specialists in related and unrelated fields (e. g., appraisal specialists and attorneys), with permittees, local elected officials, ad hoc special interest groups, and with the general public.

Factor 7, Purpose of Contacts - Level 7-3 -- 120 Points

Contacts are to negotiate preliminary agreements and contracts; to review the work of forest area employees and permittees to ensure correctness of methodology, for compliance with agreements, and safety of operation; to reconcile, to the extent possible, conflicting viewpoints and ideas; and to explain and gain support for agency aims, policies, and objectives.

Factor 8, Physical Demands - Level 8-2 -- 20 Points

A considerable amount of physical activity is required while making on-the-ground examinations or inspections of on-going operations, including walking and climbing over rough terrain.

Factor 9, Work Environment - Level 9-2 -- 20 Points

The work involves some degree of risk when involved in on-the-ground assessment of operations or the condition of possible use of forest land, including risks associated with moving machinery or equipment and the rugged topography.

TOTAL POINTS – 2570

FORESTER, GS-0460-12; BMK #1

Duties

Serves as a staff specialist and head of an interdisciplinary team in a second level unit with responsibility for obtaining multiple-use objectives: coordinates the development of individual land management unit plans and the integration of long-range functional resource plans into cohesive, land and resource management plans.

- Coordinates development and maintains the overall forest land management plans which establish the goals, program emphasis, and coordinating requirements for the total forest land mass.
- Coordinates development and maintains land management plans for each planning unit (a geographically defined unit of land) of the forest.
- Oversees study projects to develop guidelines, standards, and procedures for analyzing public needs, demands, and resource capabilities.
- Develops critical path schedules and evaluation techniques; determines type, amount, and level of information (inventory) required for the development and analysis of management alternatives and for decision making.
- Monitors collection and analyses of general inventory and other resource data; assesses current state of each resource and potential for development in concert with staff and operating unit personnel.
- Prepares or oversees preparation of draft environmental impact statements of individual land management unit plans including identification of goals (e.g., maintain or improve the quality of the anadromous fishery habitat; intensify management on more productive sites to increase the quality and improve the quality of commercially available timber) and the tactics required to meet these goals.
- Locates and identifies appropriate sources for specialized information needed for particular aspects of the plans and impact statements including the social, economic, or political issues involved in a particular piece of forest land.
- Prepares draft environmental impact statement and land and resource management plans for specific planning units; develops alternative land-use strategies; forecasts the benefits, consequences, and costs (opportunity, resource, and socioeconomic) of various possible actions in accordance with established goals; recommends and justifies a particular strategy which establishes the optimum mix of uses for the planning unit; and attempts to solve problems or conflicts in resource use.

- Coordinates public review and input into the draft environmental impact statements and land management plans through public meetings and workshops, printed brochures or newspaper advertisements soliciting written comments, or other media as appropriate. Ensures that all requirements of National Environmental Policy Act of 1969, Executive Order 11514 and other legislative and executive requirements are followed. Serves as a second-level unit expert on interpretation of environmental protection laws, regulations, and policies as they apply to management of forest natural resources.
- Revises draft environmental impact statements and proposed land management plans, as appropriate, and prepares final plans and statements for supervisory and higher level approval.
- Coordinates forest planning effort with regional, State, city, county, or ad hoc citizen committees land-use planning efforts. Ensures, through persuasion, negotiations, or similar tactics, that such plans are complementary, to the extent possible, with the forest's multiple-use efforts and plans.
- Reviews all functional resource long-range plans and short-range action plans to ensure that they are consistent with strategies and program emphasis in approved land management plan; recommends changes to such plans as appropriate.

Factor 1, Knowledge Required by the Position - Level 1-7 -- 1250 Points

- Knowledge of professional forestry land management principles, practices, and concepts sufficient to perform the full range of duties connected with planning for the management of the unit's resources (the mix, level of intensity, and program emphasis).
- Knowledge of concepts and techniques of long-range forest resource-use planning, agency goals, objectives, and land management strategies sufficient to analyze and evaluate the impact of different combinations of resource use and intensity of use on the overall forest land management program and to provide detailed justification and recommendations for a particular strategy.
- Knowledge of the interests, and major objective and aspirations of major decision making public groups and their effect on the development or modification of the forest resources.
- Knowledge of the role and influence of various government agencies and community interests on the use of forest resources, and the socio-economic impact of a change in direction or emphasis in resource use on neighboring or dependent communities and industries.
- Familiarity with timber, recreation, range, wildlife, and watershed management and soil science and their interrelationships and complementary and competing influences.

Factor 2, Supervisory Controls - Level 2-4 -- 450 Points

The supervisor outlines overall objectives in accordance with policy established at higher levels and identifies limitations such as those imposed by budgetary or land-use constraints. The forester and supervisor confer on relative priorities of particular unit plans.

The forester independently selects the techniques, establishes methods and procedures for accomplishing assignments, coordinates and schedules work of other resource specialists on interdisciplinary planning teams, and coordinates or resolves differences with specialists and others at higher level (agency) units, and with local and State agency representatives and public interest groups. The forester keeps the supervisor informed of developments in planning units involving controversial environmental problems or issues.

The completed work is reviewed only as it relates to recommendations regarding allocation of resources and effectiveness in meeting objectives, but not for format or technical considerations.

Factor 3, Guidelines - Level 3-4 -- 450 Points

Guides are usually in the form of general boundaries such as laws, regulations, agency policies, or area guides, i.e., a guide containing broad criteria or direction for a large geographical area such as the Appalachian area.

The forester must use ingenuity and resourcefulness in developing operating procedures and instructions and new techniques, and in deviating from traditional methods or adapting new methods or compromises. In part, this results from the fact that many aspects of land management planning are without precedent or directly applicable policy and guidelines and because of the many different situations encountered. The employee also exercises judgment in advising unit staff and local and State agency personnel, as appropriate, on the requirements of Federal environmental laws and their applicability and effect on local resource efforts which involve Federal lands or funds.

Factor 4, Complexity - Level 4-4 -- 225 Points

Assignments involve the development of a number of land and resource management plans and accompanying environmental impact statements.

The unit contains a significant number of complex resource use and interrelated environmental features which must be individually and jointly considered and which complicate the planning process. These include such features as complex and fragile soils over most of the forest, important hydrologic features including thousands of acres of streams, lakes, and rivers which enclose headwaters serving as critical spawning areas for anadromous fish, and over a million acres of land in tree production.

The assignments typically require extension or adaption of technical precedents or existing techniques or the development of innovative approaches to solve problems which are

characterized by conflicts between competing socioeconomic interest groups or competition between and among the various resources and resource uses.

Factor 5, Scope and Effect - Level 5-4 -- 225 Points

The purpose of the work is to develop land management plans that: meet the basic requirements of law, regulation, and policy; establish the optimum mix of use for the forest; resolve problems or conflicts in land and resource use; and that are acceptable to the using or dependent publics. The planning effort affects the long and short range use and development of all forest resources and the acceptance by the general public and various interest groups of the overall long range agency land management goals, objectives, and operations.

Factor 6, Personal Contacts - Level 6-3 -- 60 Points

Contacts are with other foresters and with specialists such as geologists, soil scientists, wildlife biologists, silviculturists, economists, and sociologists in the unit, in higher level units, State and local agencies, and in universities; contacts are also established with local and State officials, special interest groups, landowners, and the general public.

Factor 7, Purpose of Contacts - Level 7-3 -- 120 Points

The contacts are established to solicit, coordinate, and synthesize a broad range of special interdisciplinary knowledge into an acceptable overall plan; to maximize public involvement; to interpret, advise on, and justify or defend selected strategies, or the adequacy of land management plans which are often strenuously opposed by particular interest groups; and to gather information related to various aspects of the land management process.

Factor 8, Physical Demands - Level 8-1 -- 5 Points

The work is predominantly sedentary; the job does require intermittent physical exertion such as walking over rough or rocky terrain while data gathering during field examinations, but it is not on a sustained or regular basis.

Factor 9, Work Environment - Level 9-1 -- 5 Points

The work is usually performed in an office setting; occasionally some exposure to moderate discomfort is encountered on field trips such as extremes of heat or cold and inclement weather.

TOTAL POINTS – 2790

FORESTER, GS-0460-12; BMK #2

Duties

Serves as a staff specialist in a second level unit with responsibility for development and/or review of silvicultural plans and programs including the compartment prescription, reforestation, and regeneration programs.

- Drafts local policy and technical guides and standards for timber marking, reforestation, and timber stand improvement programs including site preparation, stand release, cleaning and weeding, precommercial thinning, elimination of undesirable species, pruning, species conversion, and prescribed burning.
- Prepares plans and technical specifications for field projects designed to collect and analyze data related to timber stand classification, volume, and growth.
- Assists in the development of long-range functional timber management plans including formulation of policies, objectives, and priorities, and the correlation and integration of timber plans into the overall land management plans.
- Reviews and critiques short-range plans and annual working plans prepared by first level unit personnel for timber sale planning, reforestation, timber stand improvement, and pest control; reviews all compartment prescriptions for technical adequacy and compliance with policies and standards.
- Evaluates adequacy and effectiveness of timber improvement programs through periodic on-the-ground inspections. Inspects for compliance with established policies, standards, program objectives and emphasis. Initiates corrective actions.
- Serves as a consultant and advisor to other second level staff and to first level unit personnel in all facets of reforestation and timber stand improvement techniques, their effect on other resource activities, and the effect of resource activities on silvicultural plans and programs. Plans and conducts studies on problems created by timber harvesting such as methodology for regeneration of cut areas, determination of best species for sites, and direct seeding and planting techniques.
- Recognizes need for, organizes, and conducts training in new or improved silvicultural practices, new techniques for data collection, and stand improvement programs.
- Coordinates insect, disease, and animal damage control programs as applied to silvicultural activities on the individual operating units; coordinates all pesticide use on the forest to ensure that adequate controls are used.
- Provides overall coordination and reviews accomplishments of the superior tree improvement program.

Factor 1, Knowledge Required by the Position - Level 1-7 -- 1250 Points

- Knowledge of professional forestry land management principles, practices, and concepts sufficient to perform the full range of duties connected with silvicultural land-use planning.
- Knowledge of silvics, dendrology, reforestation methods, timber stand improvement principles and techniques, harvest systems, and agency land management policies and procedures sufficient to review and/or develop silvicultural programs and standards for a wide range of silvicultural situations.
- Knowledge of the interrelationship of physical factors such as climate and soil, and biological factors such as plant and animal associations, genetics, fungi, and soil micro-organisms, and their various influences on the kind and timing of silvicultural treatments necessary and appropriate to achieve multiple-use land management objectives.
- Familiarity with related fields such as wildlife habitat management, landscape architecture, plant genetics, hydrology, and soil science sufficient to include knowledges and techniques from these disciplines in the development/review of silvicultural plans and programs.
- Knowledge of research and development activities and advances in silvicultural systems and practices and skill in adapting such advances to the varied silvicultural needs of the forest.

Factor 2, Supervisory Controls - Level 2-4 -- 450 Points

The supervisor sets the overall objectives and program emphasis and works with the employee in developing project priorities.

The forester is responsible for independently planning own work, coordinating work with other foresters and resource specialists, resolving technical compromises required by particular situations, and finalizing all assignments. The forester keeps the supervisor informed of possible adverse reactions or publicity that might arise from particular silvicultural plans or programs.

The forester's analyses, recommendations, and suggestions are relied on as technically correct; the review of the work is usually for agreement with overall policies and attainment of land management objectives.

Factor 3, Guidelines - Level 3-4 -- 450 Points

The guidelines are primarily agency policies, broad regional guidelines, and scientific reference literature.

The forester must use resourcefulness and experienced judgment in devising new techniques, developing methods, or significantly departing from established practices, as required by the unusual local conditions and the broad range of silvicultural situations in the forest.

Factor 4, Complexity - Level 4-4 -- 225 Points

Assignments involve the full range of duties concerned with site preparation, timber stand, improvement, reforestation, and pest control. Primary responsibility is the development and/or review of silvicultural plans and programs, and the development of guidelines and improved methods for the control and manipulation of the composition and growth of varied forest units.

The assignments require consideration of a number of complicating features on the varied forest areas. The features include a large variety of sites, aspects, soils and topographic features, and climatic factors such as rainfall, temperature and wind. These features, combined or singularly, interact to create several different forest cover types. Numerous commercial tree species, noncommercial tree species, and other desired vegetation result from this interaction to be managed for resources such as wildlife, range or esthetics. The timber yields can vary greatly depending on site capability and the related management action.

The varying conditions require a high degree of resourcefulness in developing or reviewing a variety of silvicultural plans necessary to effectively treat each site in accordance with specific local physical and biological conditions. These conditions also require management ingenuity and skill in developing long-range plans for returning such areas to a degree of productivity. The forester must seek new methods through such media as long term, indepth studies relating to drainage methods and species selection which either modify the environment or take advantage of it.

The forester must be versatile and innovative in approach and be able to adapt or extent standard or traditional techniques and, on occasion, improvise solutions for use on a test basis in a controlled area.

Factor 5, Scope and Effect - Level 5-4 -- 225 Points

The technical expertise provided by the forester has a significant impact on the establishment, composition, and growth of varied and widespread forest lands; on the social and economic well-being of surrounding communities and industries, and on the effectiveness of related resource programs (recreation, wildlife, etc.). This is further impacted by long-range silvicultural plans, and the overall attainment of long-range land management goals and objectives.

Factor 6, Personal Contacts - Level 6-3 -- 60 Points

Contacts are with forest staff and operating unit personnel, with research foresters and faculty of local universities, with foresters and related specialists in State agencies, private industry and associations, with elected and appointed local or State officials, and with interest groups.

Factor 7, Purpose of Contacts - Level 7-3 -- 120 Points

Contacts are for the purpose of coordinating work efforts, assessing the adequacy of harvest and reforestation plans and activities, discussing proposed plans, providing advice, and resolving technical problems.

Contacts are also for the purpose of motivating lower level and staff personnel to accept and/or use different methodology, to gain compliance with standards, guides, policies and regulations, and to influence groups into accepting the "wisdom" of controversial cutting methods (e.g., clearcuts) in areas subject to heavy recreational or other visitor use.

Factor 8, Physical Demands - Level 8-2 -- 20 Points

A considerable amount of physical activity is required while making on-the-ground examinations in connection with proposed plans and programs and/or with inspections of operational activities, including walking and climbing over rough, mountainous, or swampy terrain.

Factor 9, Work Environment - Level 9-2 -- 20 Points

Work requires exposure to some risks in inspection and review of on-going operations. Safety precautions are required such as protective head gear.

TOTAL POINTS -- 2820

FORESTER, GS-0460-12; BMK #3**Duties**

Serves as a principal resource-management assistant in a second level unit with responsibility for development and review of timber management plans and programs including compartment prescription, reforestation, regeneration, insect and disease, harvesting, timber stand improvement and appraisal.

- Drafts local policy, technical guides and standards for timber marking, reforestation, timber stand improvement, harvesting, seed collection and other timber management

functions. These include site preparation, animal control, stand release, thinning, prescribed burning, brush disposal, harvest methods, road location and utilization.

- Oversees preparation of plans and technical specifications for and reviews field projects designed to collect and analyze data related to stand classification, volume and growth.
- Prepares long-range functional plans including formulation of policies, objectives and priorities, and the correlation and integration of timber management plans into the overall land management planning.
- Reviews and critiques short-range plans and annual work plans prepared by first level units for timber management functions. Reviews compartment prescriptions for technical adequacy and compliance with policies and standards.
- Evaluates adequacy and effectiveness of timber management programs through periodic on-the-ground inspections. Inspects for compliance with established policies, standards, program objectives and emphases. Analyzes deviations and unusual local situations and initiates corrective actions.
- Serves as a consultant and advisor to other staff officers and to first level units in all aspects of timber management functions and practices and the interrelationships of timber management activities with other resource activities and values. Plans and directs studies on problems created by timber management practices such as methodology for regeneration of cut-over areas, determination of best species for sites, and direct seeding and planting techniques.
- Recognizes need for, organizes and directs training in new or improved timber management and related practices and techniques. Studies and synthesizes current research studies and reports related to timber management functions and directs such information to the use of subordinates and first level units.
- Coordinates insect, disease and animal damage control programs as applied to timber management programs on the individual units. Coordinates all pesticide use on the forest to ensure that adequate controls are used.
- Maintains liaison with State and county officials, research and resource organizations, industrial and community leaders to (1) obtain support for, and an understanding of, forestry programs, timber operations, management direction, (2) develop mutually beneficial programs or projects on public and private lands and (3) keep abreast of the state of the art in forest land management.

Factor 1, Knowledge Required by the Position - Level 1-7 -- 1250 Points

- Knowledge of professional forestry land management principles, practices, and concepts sufficient to perform the full range of duties connected with timber management land-use planning.

- Knowledge of silviculture, genetics, mensuration, economics, valuation, utilization and agency land management policies and procedures sufficient to develop an-or review timber management programs and standards for a wide range of situations and conditions.
- Knowledge of the interrelationships of physical factors such as climate and soil; biological factors such as plant and animal associations, genetics, fungi and soil micro-organisms; and legal and/or administrative factors such as threatened and endangered species, cultural resources and visual impact to achieve multiple-use land management objectives.

Factor 2, Supervisory Controls - Level 2-4 -- 450 Points

The supervisor sets overall objectives, program emphasis and general constraints and works with incumbent in developing priorities.

The incumbent independently plans the work, coordinates with other staff officers and specialists, resolves technical problems and makes decisions on the necessity for and the nature of technical compromise required by particular situations or conditions. Finalizes all staff assignments. Keeps supervisor informed of possible adverse reactions or publicity that might arise from particular plans or programs.

Incumbent's analyses, recommendations and suggestions are relied on as technically correct. Work is reviewed for agreement with overall policies and attainment of land management objectives.

Factor 3, Guidelines - Level 3-4 -- 450 Points

The guidelines are primarily agency policies, broad regional guidelines, and scientific reference material.

The incumbent must use resourcefulness and experienced professional judgment in devising new techniques, developing methods, or significantly departing from established practices, as required by unusual local conditions and the broad range of timber management situations in the forest.

Factor 4, Complexity - Level 4-4 -- 225 Points

Assignments involve the full range of duties concerned with inventory, preparation and sale of timber resources, reforestation and pest control. Responsible for the development, implementation and review of the timber management program, plans, guidelines and improved methods for control, production and utilization of the timber resource in harmony with other resources.

The assignments require consideration of a number of complicating features on the first level units of the forest areas. These include a variety of ecosystems and geographic zones. One or two major timber types have commercial significance in a variety of products (fuelwood, posts, poles, house logs, sawtimber and pulp). Soil types and topography have wide variations presenting numerous environmental problems. Climates can be extreme for short periods of time. Problems in reforestation result from poor sites, extensive animal damage, and heavy competition from wildlife and grazing livestock.

The varying conditions require a high degree of resourcefulness in developing or reviewing a variety of resource management plans necessary to deal effectively with each situation in accordance with specific local physical, biological and administrative considerations. These conditions require indepth analysis of conflicts of resource, socio-economic need, and public opinion and desires in developing long-range plans to insure continued productivity. Incumbent must be versatile and innovative in approach and be able to adopt or extend established techniques, or develop methods and improvise solutions to overcome existing problems.

Factor 5, Scope and Effect - Level 5-4 -- 225 Points

The technical expertise provided by this position in the development of integrated timber plans; guidelines and criteria, the coordination of the timber program, and the review and inspection of operating units, affects the timber and related management goals and objectives, the long-term quantity and quality of commercial timber to meet public needs, and the acceptance by the general public and various interest groups of the overall long-range management goals, objectives and operations.

Factor 6, Personal Contacts - Level 6-3 -- 60 Points

Contacts are with staff and operating units, with research scientists and faculties of local universities, with representatives of the timber industry, with environmental and conservation groups, with elected or appointed state and local officials and with contractors and their operators.

Factor 7 Purpose of Contacts - Level 7-3 -- 120 Points

Contacts are to plan and develop cooperative endeavors with state and local officials, to negotiate and commit the forest area to a particular course of action, to correct disputed deficiencies in timber operations and to establish and maintain contacts with individuals and organizations who apply pressures to further their specific interests. Meetings involve decisions and commitments which have important implications for the overall forest area programs and objectives.

Factor 8, Physical Demands - Level 8-2 -- 20 Points

The work requires frequent physical exertion while making on-the-ground examinations in connection with proposed plans and programs, and with inspection of operations. Activities

include walking and climbing over rough, forested mountainous terrain and travel by truck, horse, aircraft or snow machines.

Factor 9, Work Environment - Level 9-2 -- 20 Points

Outdoor work requires exposure to risks and discomforts of extremes in climate and weather, logging operations in mountainous areas, and noise, dust and hazardous footing. Safety equipment such as hardhat and boots are required. Other work is performed in offices or meeting rooms with adequate heat, light and ventilation.

TOTAL POINTS -- 2820

FORESTER, GS-0460-12; BMK #4

Duties

Serves as a staff specialist in an office covering one or more States with responsibility for the development of standards, methods, and procedures for the conduct of the sale preparation and valuation phases of timber harvests occurring in and affected by a variety of industrial situations.

- Plans for and directs product recovery studies for timber valuation purposes in cooperation with research and experiment offices, representatives of the timber industry, and Federal and State agencies.
- Determines need for recovery studies based on the requirements of the valuation process and the necessity to maintain a correct data base for species valuation as it is affected by such factors as: (1) a change in program direction from large, old growth cuts to small thinnings; (2) changes in industry practices which invalidate current practices and procedures; (3) gaps in existing recovery data caused by procedural changes in the appraisal system such as conversion from Scribner log scale to a cubic log scale; and (4) complaints by logging and mill operators that certain species, areas, or stands do not yield the volume expected due to variations in size or defect characteristics.
- Determines objectives, intensity and overall procedures for conducting a study to insure that it meets identified needs, that data will be statistically representative and that results reported will be valid and reliable.
- Negotiates agreements and study methods with logging and mill operators to implement recovery studies. Reconciles differences and resolves complaints from logging and mill operators about loss of production time (machines shut down and workers delayed in the woods or in the mill) while measuring, counting, and marking steps are carried out.
- Develops interpretive reports of values of forest products, production costs, harvest costs, profit margins, market trends and other data pertinent to the timber valuation process from information obtained from timber purchasers and contractors.

- Develops standards, methods, guides, and procedures for presale work and provides advice, interpretation and training to other professionals on the application of developed standards, methods, guides and procedures to timber harvest activities on forested land.
- Conducts activity reviews of lower level operating and staff units covering all phases of their sale preparation and valuation activities to keep informed of local conditions affecting this work and to determine conformance with and adequacy of established standards, methods and procedures.
- Coordinates sale preparation and valuation (immediate and long range) objectives and plans, and the scheduling and establishment of priorities, with other resource units to ensure that they do not conflict with the overall forest land management program.

Factor 1, Knowledge Required by the Position - Level 1-7 -- 1250 Points

- Knowledge of professional forestry land management practices and concepts, aerial photo interpretation techniques and principles, and forest economics and valuation sufficient to develop and execute wood product recovery studies and to review timber sale proposals and programs for forest areas.
- Familiarity with related fields such as engineering, landscape architecture, hydrology, soil science, wildlife habitat management, silviculture, fuels management, and entomology sufficient to incorporate considerations from these disciplines in the review of timber management plans and activities.
- Knowledge of logging and milling financial and operational practices and procedures, timber sale layout techniques, and the agency timber appraisal system sufficient to analyze feasibility of timber sale proposals, collect, analyze and interpret timber appraisal data such as product selling prices, manufacturing costs, logging costs and profit margins, and to prepare data for publication to support the appraisal system.

Factor 2, Supervisory Controls - Level 2-4 -- 450 Points

The supervisor sets the overall objectives and program emphasis and works with the employee in developing project priorities. The forester is responsible for independently planning own work, coordinating this work with other foresters and resource specialists, resolving technical problems, deciding on necessity, for and kind of technical compromise required by particular situations, and finalizing all assignments. The forester will keep the supervisor informed of possible adverse reactions or publicity that might arise from particular sale preparation and validation reports, plans or programs.

The forester's analyses, recommendations, and suggestions are relied on as technically correct. Completed work is reviewed for agreement with overall policies, and attainment of objectives and due dates.

Factor 3, Guidelines - Level 3-4 -- 450 Points

The guidelines are primarily agency policies, broad area guidelines, and scientific reference literature. Precedent recovery studies often provide procedural guides, but about half of the studies require that a "tailor-made" approach be developed, because of the wide differences between mills.

The forester must use resourcefulness and experienced judgment in devising new techniques, developing methods, or significantly departing from established practices, as required by unique local conditions and the broad range of timber harvesting situations, logging practices, and milling operations. Substantial deviation from precedents is encouraged in order to develop more effective methods. Occasionally, the forester must request mill owners or managers to modify milling procedures so that the objectives of the study can be met.

Factor 4, Complexity - Level 4-4 -- 225 Points

Assignments involve the development of standards, methods and procedures for the sale preparation and valuation of timber and timber harvests.

The work is complicated by interrelated factors which must be considered simultaneously such as: (1) the diversification of end products and markets varying from dimension stock to moulding, veneer and chips; (2) the varied logging methods employed; (3) the large number of commercial timber species (approximately 20); and (4) the differences in mill accounting practices which vary considerably from mill to mill.

The work requires the forester to isolate specific variables in order to identify individual cost factors, and to interrelate and correlate other financial, accounting and marketing variables and processes and the underlying forestry principles in order to plan the sale preparation and valuation "program" and to draw correct conclusions from the data evaluation. Frequently, the forester must extend or adapt existing methodology due to the shifting dependent variables and the concomitant lack of specific guidance.

Factor 5, Scope and Effect -- Level 5-4 -- 225 Points

The technical expertise provided by the employee has a significant impact on appraisal methods and selling prices, as well as on the economic well being of forest industries which are dependent on Federal timber for a major source of raw materials. Recommendations or decisions made by the forester materially affect the value of the annual harvest and success of the timber sale program in general throughout the State (or States).

Factor 6, Personal Contacts -- Level 6-3 -- 60 Points

Establishes and maintains contact with timber purchasers, mill operators, trade associations, research scientists, and employees of various Federal and State agencies. Maintains contact with

sale preparation personnel on the various forestlands in the State or States and in the national headquarters office of the agency.

Factor 7, Purpose of Contacts -- Level 7-3 -- 120 Points

Contacts are to negotiate joint agreements and recovery study methods; to investigate and resolve complaints, misunderstandings, and operational problems; to develop new ideas and procedures; to interpret methods and procedures; to reconcile conflicting viewpoints; to obtain financial and operational data from industrial companies where such data is closely guarded; and to provide advice and training.

Contacts are also to motivate and persuade lower level an-or other staff personnel to accept and use different methodologies; to gain compliance with standards, guides, policies and regulations; and to influence groups to accept the reasoning supporting the use of controversial or innovative methods.

Factor 8, Physical Demands - Level 8-1 -- 5 Points

The work is predominantly sedentary, but does require some intermittent physical exertion such as walking long distances over rough, steep, or rocky terrain.

Factor 9, Work Environment - Level 9-1 -- 5 Points

The work is usually performed in an office setting. During product recovery study there is exposure to hazards involving heavy equipment. During field data collection there is exposure to falls and strains and moderate discomfort from inclement weather such as rain, cold, and heat.

TOTAL POINTS – 2790

FORESTER, GS-0460-12; BMK #5

Duties

Serves as a staff specialist in a resource conservation office serving a state with responsibility for the forestry phase of the resource conservation programs within the state. Provides technical leadership and guidance to lower level offices and private landowners on policies, practices and techniques of effective woodland planning, management and protection.

- Reviews and analyzes woodland conditions throughout the state through personal visits, annual inspection trips and written and oral reports from field offices; determines the type, amount and combination of woodland management and conservation practices required to use the lands in accordance with acceptable scientific methodology and

agency policy; develops new procedures or techniques for application to particular woodland conservation and management problems within the state.

- Develops and modifies standards, guides, specifications and similar material that are directed to the particular woodland characteristics and related resource needs of the state.
- Maintains awareness of new technological developments in forestry; develops methods for applying techniques to local forestry and woodland problems; demonstrates new techniques to woodland owners to encourage landowners to apply needed practices.
- Collaborates with soil scientists and other specialists in developing methods for collecting and analyzing forest soil site correlation data for the principal species and major forest types in the state and analyzes and interprets significance of the data; on the basis of the data analysis, prepares woodland management specifications for treatment units.
- Assists lower-level unit personnel in devising resource conservation plans for units with complex woodland problems; develops effective techniques and procedures for planning for and applying practices adaptable to a variety of soils, topography, climate and land-owner needs and capabilities.
- Analyzes training needs of foresters in field offices; develops and conducts seminars in the latest forestry management techniques of woodland conservation and development.

Factor 1, Knowledge Required by the Position - Level 1-7 -- 1250 Points

- Knowledge of professional forestry land management principles, practices and concepts and of agency land management policies and procedures to perform the full range of duties necessary to incorporate woodland conservation and use into the total resource conservation program.
- Knowledge of diverse forestry and related subjects such as dendrology, mensuration, silviculture, wood product technology, watershed management, windbreak and shelterbelt management, nursery practices, seeding and planting, and of the interests, objectives and financial resources of public and private groups and individual landowners involved in agency programs, sufficient to develop resource conservation plans that are scientifically sound and economically practical.
- Familiarity with related disciplines such as landscape architecture, hydrology, soil science and wildlife habitat management sufficient to incorporate knowledges and techniques from these disciplines in the woodland conservation plans and programs.

Factor 2, Supervisory Controls - Level 2-4 -- 450 Points

The supervisor makes assignments in terms of overall objectives and priorities of the woodland conservation projects in terms of the total state-wide conservation programs.

The work is performed independently with considerable latitude for the exercise of judgement in determining solutions and resolving technical problems. The forester plans the work, and establishes methods and techniques for completing each assignment, and coordinates with other staff members, as appropriate. Major policy questions are resolved by consultation with the supervisor.

Completed work is reviewed in terms of its conformance to agency policy and priorities and overall resource program objectives.

Factor 3, Guidelines - Level 3-4 -- 450 Points

Guidelines consist of agency-wide directives such as technical manuals and guides, standards, specifications and policy issuances.

The forester must use resourcefulness and experienced judgement in devising new techniques, developing methods or significantly departing from established practices in applying agency directives to local conditions.

Factor 4, Complexity - Level 4-4 -- 225 Points

Assignments involve the implementation of sound forestry management practices on private forest lands including multiple concepts of recreation, wildlife, and watershed management, and production of tree crops.

The assignments are diverse and entail a number of different forestry situations including farm and ranch windbreak plantings, income producing recreation or wildlife habitat areas, pastured and unpastured woodlands, and small farm forests. The work requires simultaneous consideration of a number of complicating features including thousands of individual landowners with varying needs, objectives and financial resources; and diverse topography, soil types, species, site indices, and climate.

The forester must be innovative and versatile in approach and must modify or adapt standard techniques and practices, and improvise solutions to solve the varied problems.

Factor 5, Scope and Effect - Level 5-4 -- 225 Points

The purpose of the work to provide advisory services, either directly or through other foresters, to private landowners to enable them to develop plans to conserve and properly utilize forest lands as a natural resource.

The technical expertise provided by the forester has a significant impact on the effective and economical management of thousands of private woodlands in the state, and on the social and economic well-being of individuals, communities, and industries throughout the state.

Factor 6, Personal Contacts - Level 6-3 -- 60 points

Contacts are with land users, other agency personnel and foresters with State and Federal agencies. Other contacts are with consultant foresters and foresters in private industry.

Factor 7, Purpose of Contacts - Level 7-3 -- 120 points

The contacts are to gain acceptance of scientific forestry land management techniques from land owners and users and various interest groups. Considerable skill is required to persuade often reluctant landowners and others to accept and apply multiple-use concepts of land management rather than using simpler, and perhaps cheaper, but environmentally damaging techniques.

Factor 8, Physical Demands - Level 8-2 -- 20 points

The work requires some physical exertion such as long periods of walking over rough uneven terrain.

Factor 9, Work Environment - Level 9-2 -- 20 points

Work requires some risks working around heavy machinery involved in forest management activities and negotiating hazardous topography. Moderate discomforts are encountered such as high noise and adverse weather conditions.

TOTAL POINTS – 2820

FORESTER, GS-0460-13; BMK #1**Duties**

Serves as a principal resource management assistant in a second level unit with responsibility for providing long-range resource planning, program direction, coordination and evaluation of the timber management and related activities on First level operating units. Provides leadership, coordination, and direction to: (1) silvicultural and tree improvement programs including compartment prescription, stand improvement and reforestation; (2) timber harvesting including product utilization; (3), insect, disease, and other pest control activity; and (4) integration of timber management plans and activities with the other programs of the unit.

- Prepares or directs the preparation and revision of the short- and long-range functional timber management plans for the forest. Includes the collection, compilation, analysis, and interpretation of data relative to the volume and quality of timber by species, as well as information concerning disease attacks, soils, topography, accessibility, and other factors necessary to the development of the plans and the establishment of cutting budgets.

- Reviews annual or periodic plans and schedules for individual first-level units to determine compliance with long-range resource management plans; and to set up areas and priorities for reforestation, timber stand improvement, and timber surveys.
- Provides technical direction for timber harvesting activities including the collection of appraisal data, appraisals, sale administration, trespass, and sale plans; provides technical advice and guidance in the adaptation of policies and standards received from higher level units to local conditions.
- Makes functional inspections of timber management activities on-the-ground for compliance with approved plans, rules, regulations, policies, and standards; inspects timber sales for compliance with timber sale contract; prepares recommendations for changes in management direction or operating procedures.
- Prepares, or directs the preparation of, timber stand improvement instructions; counsels, and gives technical training to first level operating unit personnel on organization, effective pesticides, improved tools, and equipment.
- Inspects timber stand improvement and planting projects for conformance with approved plans and specifications; coordinates timber stand improvement activities with other resource management activities.
- Provides training to forest staff in the selection of superior trees and seed production areas; periodically inspects trees included in superior tree program.
- Plans, conducts, or oversees administrative studies designed to review and improve procedures for timber resource development activities.
- Maintains close coordination with experimental research units in carrying out various studies and in keeping abreast of new findings.
- Assists supervisor in the development of overall forest resource and functional programs including formulation of local policies and objectives, the coordination between activities, and the establishment of program priorities.

Factor 1, Knowledge Required by the Position - Level 1-8 -- 1550 Points

- Mastery of advanced concepts, principles, and practices of forestry sufficient to serve as the technical authority for the full range of activities of the timber management program of a second level unit.
- Knowledge sufficient to prepare and/or assess short-range and long-range functional resource and plans to ensure the effective management, utilization, and conservation of the timber resource in accordance with relative priorities, available funds, and long-range needs.

- In-depth knowledge of forestry and related natural resource fields sufficient to critically review and evaluate the efficiency and effectiveness of the work environment and programs; to adjust and revise programs and procedures to facilitate operations in the face of technical or administrative obstacles; and to apply the latest developments in forestry to solutions of novel or controversial timber management problems for which accepted or proven methods are not applicable.
- Knowledge of the effect of the timber management activities in all areas of the forest sufficient to assess their impact on, and acceptability to, dependent communities and industries in the forest zone of influence.
- Comprehensive knowledge of agency land management policies and procedures and of the various statutes governing the use and development of timber on Federal land.
- Broad and intense knowledge of technological advances in timber management sufficient to evaluate their applicability to specific forest situations and to develop procedures to incorporate them in the forest's timber program.

Factor 2, Supervisory Controls - Level 2-4 -- 450 Points

The forester receives assignments from the supervisor in the form of broad functional responsibilities and overall objectives.

The forester works independently in obtaining resource objectives, interpreting policies and regulations, resolving technical or administrative conflicts with permittees and other forest users in collaboration with operating unit personnel, and coordinating timber resource activities and plans with other resource personnel independently, or as appropriate, in collaboration with an ad hoc interdisciplinary resource team. Policy questions are discussed with the supervisor, but conclusions reached are frequently the result of joint consideration and agreement.

The forester's recommendations and decisions are usually accepted as technically accurate, subject to overall review for conformance to policy and program objectives.

Factor 3, Guidelines - Level 3-5 -- 450 Points

Basic guides are broad, technical policies and planning objectives of top-level management, public policy as expressed in controlling statutes, and the approved land management plans which specify resource management direction and emphasis.

Within these broad boundaries, the forester is expected to develop new methods and procedures; to identify the latest appropriate technological concepts and practices and to incorporate them in the resource plans and programs. The forester also exercises judgment and originality in developing or evaluating resource programs and individual projects and work plans to ensure that they are technically sound and will overcome unusual problems caused by peculiar environmental or socio-economic requirements of particular land areas.

Factor 4, Complexity - Level 4-5 -- 325 Points

Assignments involve the full range of timber management activities including silvics and silviculture, sale preparation, volume determination, appraisal, sale administration, and tree improvement. Primary responsibility in these areas is the development of short and long-range functional resource plans and the incorporation of research findings into "pilot" projects and/or operational procedures, the initiation of guides for operating unit personnel, and the inspection and review of program execution.

The forester must exercise a high degree of resourcefulness and ingenuity in devising or reviewing long-range and short-range solutions to problems of a unique or novel nature which preclude the application of standardized methods. A variety of silvicultural practices are required due to the variation in topography and climate which results in the area having three major timber types and several commercial species.

Much of the relatively level and "easily" logged areas have been cut and most of the remaining timber is on rugged and unstable terrain which requires special harvesting methods and systems. There is a large area of private land (approximately 25 percent of the gross area) within the forest boundary which creates complex access and rights-of-way problems.

The timber management planning and execution process is additionally complicated by the timber activity's impact on recreational and wildlife use, which represent two of the major resource use activities in the forest and which are usually in competition as to the best resource management strategy to be used; e.g., if the understory vegetation is maintained, it will enhance the site for wildlife use, whereas if the area is subject to a prescribed burn, it will create a setting more conducive to increased recreational use. Additionally, there is heavy dependency and strong competition for the timber produced due to a concentration of mills and plants that utilize the forest's products, in many cases, as their main or sole source of supply.

The combination and interaction of environmental conditions, use characteristics, conflicts between technical forestry approaches and management requirements, and the heavy dependency of industry in the area for the forest products requires the forester to extend traditional techniques and criteria, to develop new ones to resolve technical forestry problems or conflicts between resource uses and socio-economic demands, and to project long term needs and the effect of short-range actions on resource use and availability.

Factor 5, Scope and Effect - Level 5-4 -- 225 Points

The technical expertise provided by the forester in the development of integrated timber plans, guidelines and criteria, the coordination of the timber program and the review and inspection of nation operating units, affects especially the timber, recreation and wildlife management goals and objectives, the long term quantity and quality of commercial timber necessary to meet public needs, and the acceptance by the general public and various interest groups of the overall long-range land management goals, objectives, and operations.

Factor 6, Personal Contacts - Level 6-3 -- 60 Points

Contacts are with forest staff and operating unit personnel, with research foresters and faculty of local universities, with representatives of commercial timber interests, environmental and conservation groups, and with elected or appointed State and local officials.

Factor 7, Purpose of Contacts - Level 7-3 -- 120 Points

The purpose is to plan and develop cooperative endeavors with State and local community officials, to negotiate and commit the forest to a particular course of action, to correct disputed deficiencies in timber operations and obtain compliance with land management plans, and to establish and maintain contacts with individuals and organizations who apply pressures to further their specific goals. Meetings, particularly with State and local officials, involve decisions and commitments which have important implications for the overall forest and agency programs and objectives.

Factor 8, Physical Demands - Level 8-2 -- 20 Points

The work requires some physical exertion usually on a weekly basis while inspecting and evaluating the condition of the forest units and programs including walking over rough, uneven terrain in all types of weather.

Factor 9, Work Environment - Level 9-2 -- 20 Points

Exposure to moderate discomfort from such extremes as heat, cold, and inclement weather is encountered when performing on-the-ground inspections.

TOTAL POINTS -- 3220

FORESTER, GS-0460-13; BMK #2

Duties

Serves as a staff specialist on silvicultural systems, reforestation, timber stand improvement, and insect and disease control in a forestry office covering one or more States with responsibility for (1) assuring the adequacy of plans and recommendations submitted by forest units, (2) advising on the interpretation, and implementation of national policy directives and programs, (3) the review, evaluation, adaptation, and application of new research findings, and (4) the inspection and critical review of program implementation in various forest units.

- Reviews new or revised policy directives or program material from agency headquarters; develops and distributes standards and guides for implementation and compliance by lower level forest units.
- Reviews reports and recommendations of forest units for adequacy, compliance with policies, guidelines, priorities, and assesses impact; makes necessary changes in reports, in collaboration with submitting offices, where deficiencies or problems are noted.
- Advises foresters on a variety of problems relating to the operation of nurseries and seed orchards, seed extraction and storage, seedling survival, use of chemicals and prescribed fire, site preparation, timber stand improvement, and other silvicultural practices.
- Advises foresters on the development and application of control plans for various insects and diseases; coordinates pest control programs and consults with specialists in other sections and units.
- Develops harvest and cultural standards and regeneration programs to assure regeneration of non-stocked areas consistent with multiple-use strategies.
- Develops specifications, maintains standards, and furnishes technical guidance and training in the procurement and use of site preparation and timber stand improvement tools and chemicals.
- Reviews scientific literature in timber management, forest pests, soils, genetics, and other scientific fields; incorporates these findings into policy standards.
- Cooperates with research foresters in the agency and with foresters in universities in initiating studies concerning regeneration, harvest systems, and overall timber management.
- Plans and conducts periodic, functional inspection and assistance trips to all second and first level units to keep informed of local conditions and concerns, to determine compliance with policies, objectives, and standards, and to determine effectiveness of current policies and procedures; prepares report of findings with an analysis and appraisal

of the adequacy and effectiveness of plans and programs, and recommends appropriate remedial action.

- Develops programs and provides training to second and first level unit staff in nursery operations, reforestation, regeneration, stand improvement, tree improvement, and other phases of silvicultural systems.

Factor 1, Knowledge Required by the Position - Level 1-8 -- 1550 Points

- Mastery of the concepts, principles, and practices of forestry sufficient to serve as an expert in the development of plans and guidelines used to control forest establishment, composition, and growth.
- In-depth knowledge of latest research findings and technological advances in silviculture and insect and disease control sufficient to evaluate these developments and experimental theories, to determine their applicability and cost effectiveness in relation to the varied environmental characteristics of the geographic region, and to incorporate them into standards and guides for application and implementation on the forests.
- In-depth knowledge of silvics, dendrology, reforestation methods, and harvest systems and equipment; familiarity with related disciplines such as wildlife habitat management, zoology, plant genetics, hydrology, soil science, and entomology sufficient to develop guidelines, criteria, policies, and procedures for overall silvicultural land management programs.
- Knowledge of climate, soil, plant and animal association, insects, fungi, and soil micro-organisms and their various influences on all elements of reforestation.
- Comprehensive knowledge of agency land management policies, procedures, and regulatory requirements regarding the development and use of timber and associated multiple use objectives.

Factor 2, Supervisory Controls - Level 2-4 -- 450 Points

The supervisor assigns the work in the specialized area, on a continuing basis, in terms of the area or scope of responsibility, overall objectives, and special problem areas that require attention.

The forester independently plans own work, coordinates with other foresters and subject matter specialists, resolves technical problems and conflicts, and completes all assignments. The forester provides advice on technical questions and interpretations of policies and guidelines in the assigned area of responsibility.

The forester's analyses, recommendations, and suggestions are relied on as technically authoritative; the review of work is usually for agreement with overall policies and attainment of land management objectives.

Factor 3, Guide lines - Level 3-4 -- 450 Points

The assignments are undertaken within the broad framework of agency regulations, policies, and existing guides as contained in the administrative forestry manual and technical literature. The guidelines embrace a range of concepts and procedures which require or permit broad latitude for independent and innovative action due to the wide variety of physical, biological, and socio-economic conditions and issues which are found over the area of responsibility.

The forester must exercise leadership and ingenuity in researching new techniques or equipment and developing new or substantially modifying existing specifications and criteria for vegetative manipulation, stand conversion, and insect and disease control.

Factor 4, Complexity - Level 4-5 -- 325 Points

Primary responsibility is to provide advice and guidance and to develop technical guidelines, standards and procedures, and to inspect and evaluate the results, in the full range of duties involved in site preparation, timber stand and tree improvement, silvicultural equipment and systems, and insect and disease control.

The forester must analyze and resolve critical and complex silvicultural problems and devise new procedures from experimental data or "evidence" which is often not clear as to the applicability to specific conditions and sites. The forester provides advice in silvicultural situations whose solutions require an array of techniques or new combinations of approaches due to such factors as a wide variance in site and tree quality, type and species, soils or climatic conditions; situations where there have been repeated failures to overcome problems through conventional approaches; and serious and conflicting interest and opinions of various affected publics due to differing socio-economic conditions and aims.

The work requires resourcefulness and imagination to (1) determine the validity and soundness of projects originating at lower levels, (2) interpret technical principles and guidelines in the context of complex problems which embody numerous variables and combinations of silvicultural conditions that must be considered concurrently, (3) develop methods, standards, or techniques which involve significant departures from current practices, and (4) to develop solutions to highly controversial and/or unique problems.

Factor 5, Scope and Effect - Level 5-5 -- 325 Points

The purpose of the work is to provide advisory expertise for the identification and resolution of critical site preparation, timber stand improvement, and other silvicultural problems.

The results of the work have a significant impact on the regeneration, composition, and growth and sustained yield of timber stands on a large number of forest lands throughout the state or states, on the accomplishment of national goals for resource management, development and use,

and on the social and economic well-being of a large number of dependent communities and industries.

Factor 6, Personal Contacts - Level 6-3 -- 60 Points

Contacts are with research foresters and other foresters in the Federal Government, in State agencies, in private industry and associations, in universities, and with specialists in related disciplines both within and outside the unit.

Factor 7, Purpose of Contacts - Level 7-3 -- 120 Points

Contacts are for the purpose of coordinating work efforts, assessing the adequacy of reforestation planning activities, discussing proposed plans, providing advice, and resolving critical problems on various forest units. Contacts involve negotiation or persuasion to ensure acceptance and adoption of technical methods and techniques which may be "new" or in conflict with the tendencies or opinions of operating staff and line foresters, both at lower and higher levels in the organization.

Contacts are also for the purpose of persuading or encouraging authoritative scientists in private industry, universities, or forestry research organizations within the agency to develop new techniques or to pursue a particular line of inquiry, and to work with them in developing practical applications of new forestry technology.

Factor 8, Physical Demands - Level 8-1 -- 5 Points

The work is largely sedentary, although some physical activity is required when making inspection trips.

Factor 9, Work Environment - Level 9-1 -- 5 Points

Work is primarily performed in an office setting, with some travel to forests to review field operations.

TOTAL POINTS -- 3290

FORESTER, GS-0460-13; BMK #3

Duties

Serves as a staff specialist and expert consultant on softwood silvicultural systems in a cooperative forestry office covering a multistate area. This position provides technical assistance to States, industrial forest product companies, and private landowners in the areas of softwood reforestation, timber stand improvement and forest management.

- Advises State, industrial and private (individual) landowners on a variety of problems and opportunities relating to softwood reforestation, timber stand improvement and related forest management activities. Visits state and private forest areas to observe operations and review environmental conditions. Discusses management aims and desired "outputs". Devises and recommends effective forest management strategies to achieve outputs within boundaries of scientific and legislated forestry land-use principles.
- Reviews technical publications and attends technical conferences and workshops to keep current with the latest technology. Works closely with research units to convey new forest management needs to them and to search for emerging research results that appear ready for implementation. Analyzes research efforts and designs strategy for their effective implementation and incorporation into the softwood program.
- Organizes and chairs workshop groups and special task forces made up of state foresters, industrial forest management personnel, consulting foresters, university professors, research scientists and other national or international professionals, formed to devise improved methods and strategies in the area of softwood silviculture or to "attack" specific and serious regional problems in such areas.
- Prepares informational and advisory technical reports and lay journal articles on the latest technical improvements and administrative and/or pilot studies in softwood reforestation, silviculture and forest management.
- Assists and trains State foresters, forestry consultants and other professionals in understanding and implementing new technology in the broad field of softwood reforestation, timber stand improvement, intermediate cutting, species adaptability, soil site relationships and cost/benefit analyses.

Factor 1, Knowledge Required by the Position - Level 1-8 -- 1550 Points

- Mastery of the concepts, principles and practices of silviculture, forest soils, forest biology or botany and some training in forest economics, ecology and statistics to carry out proper analysis, and planning and implementation of research findings and recommendations and thus ensure optimize management and utilization of the total forest resource.

- In-depth knowledge of forest soils sufficient to provide advice on all aspects of softwood silviculture including all regeneration activities from site selection, species selection, site preparation, planting, timber stand improvement, inter-mediate cutting cycles and harvest cut recommendations.
- In-depth knowledge of forestry and related natural resource fields sufficient to adapt research findings to actual work situations and capability to promote implementation of the new technology in softwood reforestation and forest management programs.

Factor 2, Supervisory Controls - Level 2-4 -- 450 Points

The forester receives assignments in terms of overall objectives and the administrative or other resources available to meet these objectives.

The forester is responsible for independently determining project plans and steps necessary to effectively foster and implement program objectives, and works with cooperators to achieve joint agreement in program goals. The supervisor and the forester use feedback from cooperators and clientele to measure the effectiveness of program efforts and as a means of developing future program direction and emphasis.

Recommendations made are accepted as technically correct and are checked for such things as administrative agreement with budget constraints and with general operating policy. Short and long-term operational planning is usually subject to administrative review only.

Factor 3, Guidelines - Level 3-4 -- 450 Points

The technical aspects of the program and other work assigned to this specialist are accomplished within the broad framework and general policy statements contained in administrative manuals and include agency regulations and policies and legislative authorities.

Considerable judgement and ingenuity are required to resolve diverse problems across varied environmental zones for which technical guidelines are insufficient or not directly applicable due, for example, to situations where the optimal technological strategy may not be economically feasible for small forest land owners because of such factors as the prohibitive cost of marking timber, the area is not suitable for cost-efficient mechanical harvesting, etc. The employee also exercises initiative and judgement in identifying and implementing the latest and most pertinent technological concepts and practices in softwood silvicultural systems.

Factor 4, Complexity - Level 4-5 -- 325 Points

Projects require developing plans and strategies to promote effective and technologically improved forest management practices, particularly softwood reforestation and timber stand improvement techniques on state, corporate and "small" privately-owned forested land. The strategies and methods used on various projects range from site preparation practices requiring minimal surface or mechanical activity through intensive and extensive practices involving

chopping, injecting, bedding and drainage through species selection, selection of specific seed source or specific containerized planting stock, fertilization methods and root inoculation techniques.

The forester must consider such diverse and interrelated factors as unusual and/or varied local environmental conditions, cost/benefit relationships and economic feasibility or desirability, Federal and state legislation, environmental concerns and public pressure for multiple-use management.

There is a great diversity in the geography, forest types, and conditions and management practices and purposes among the varied lands. Climatic and topographic locations range from coastal plain through mountainous plateau areas to areas of dry plains. Unusual and unprecedented problems arise due to the environmental diversity and to the thousands of individually owned forest lands contained in the region, many of which require new approaches or new and improved techniques or strategies to convert the lands from an unmanaged and unprofitable situation to a managed and profitable one.

Factor 5, Scope and Effect - Level 5-5 -- 325 points

The forester provides expert advice on reforestation, timber stand improvement, and forest management concepts and techniques for southern commercial softwood species, and must continuously evaluate program effectiveness and seek to carry out those changes or improvements which will provide the greatest environmental, economic and values. Works with a wide range of Federal and State agencies, as well as industrial and university cooperators. Results of the work have a significant impact on the establishment, composition, and growth of a large number of forest lands in the multi-state area, on the accomplishment of national goals for resource management, development and use, and on the social and economic well-being of a large number of dependent communities and industries in a multi-state area.

Factor 6, Personal Contacts - Level 6-3 -- 60 points

Contacts are primarily with State foresters and key staff members, industrial forest management personnel, consulting foresters, university professors and research scientists and other national and international professionals engaged in reforestation and silviculture research and application. Contacts are handled by phone, correspondence, through workshops, symposia, ad hoc meetings and on a one-on-one basis.

Factor 7, Purpose of Contacts - Level 7-3 -- 120 points

The purpose of these contacts is to provide technical expertise and guidance to: implement existing and new technical information; exchange ideas and concepts; provide technical alternatives to management decision making; and achieve, not only the clients objectives and goals, but also, the agency goals in planning for optimize resource development and use.

The contacts are also to provide training and leadership to all cooperators, collaborators, and other recipients seeking commitments and fostering cooperative efforts to insure that required actions are implemented. This requires tact, determination, and persuasion especially to convince small land-owners to adopt what may be, in their view, financially wasteful practices from a short-range perspective. When, in fact, these recommendations are scientifically sound practices necessary for the achievement of optimize management and utilization of the forest resource on a long-range basis.

Factor 8, Physical Demands - Level 8-1 -- 5 points

The work is primarily office work and conferences, workshops and symposia. Occasional field work demands 20%-25% of the incumbent's time, and requires standing and walking for long periods of time during field visits. Occasional activities require lifting light to moderately heavy equipment and supplies.

Factor 9, Work Environment - Level 9-1 -- 5 points

The work environment involves normal, everyday type of risks generally associated with office and meeting rooms. During field visits any one or more of the following are genuine risks associated with the work; automobile travel, moving equipment, irritant chemicals, dust, irritant insects, poisonous snakes and increased levels of noise. Where such conditions do exist, incumbent is expected to observe and carry out approved safety precautions.

TOTAL POINTS – 3290

FORESTER, GS-0460-14; BMK #1

Duties

Serves as the technical authority in fire management and air operations in an office covering one or more States with responsibility for: (1) providing technical advice and guidance to the administrator-in-charge of the planning, development, and guidance of resource management programs of the office and (2) providing technical guidance, program review, coordination, and leadership for the fire management and air operations program.

- Participates with the regional administrator and other top staff members in the formulation and establishment of regional, natural resource management policies and programs.
- Serves as a consultant and authoritative expert to the regional administrator and staff on the use of fire management as a "tool" in achieving the overall multiple-use land management program objectives.

- Formulates policies, plans, and programs necessary for the administration of fire management and air operations activities.
- Directs the development and establishment of regional coordination plans, standards, and technical guides for:
 - Fire program management - including fire control plans, pre-suppression and suppression activities, fire trespass coordination, prescribed burning, and smoke management.
 - Fuels management - including fuels inventory methods and procedures, fuel treatment methods and programming, pre-attack planning, and land use planning and environmental coordination;
 - Fire management operations - including mobilization and dispatch coordination, fire prevention, training, logistics, equipment development and deployment, regional smokejumping coordination, and the fire suppression communications program;
 - Air operations - including aircraft operating procedures, pilot and aircraft certification programs, air operations safety and training programs, and aircraft maintenance procedures.
- Prepares budget and recommends allocation of available funds to the various forests for pre-suppression, prevention, and fuels management needs.
- Develops and negotiates cooperative fire agreements within the region with various fire control agencies such as timber protective associations, State forestry officials, and other Federal agencies.
- Conducts program reviews and assistance trips on forest units to evaluate compliance with policies, objectives, and standards, overall effectiveness of operations, and to provide technical assistance in the solution of specific local problems. Institutes or recommends changes in operating procedures or programs to increase effectiveness of operations, and to provide technical assistance in the solution of specific local problems. Institutes or recommends changes in operating procedures or programs to increase effectiveness or correct practices in violation of established regulations or procedures.
- Directs studies in such areas as fire behavior, fire spread, resistance factors, fire retardants, fuels, weather, and related factors. Works with research personnel in the development and trial of new methods and approaches for fire management activities.
- Makes on-the-ground review of effectiveness of suppression activities on large-scale fires; plans and directs administrative studies designed to analyze results of efforts and to develop more effective methods of combating wildfire under different conditions, including new equipment development and testing.

Factor 1, Knowledge Required by the Position - Level 1-8 -- 1550 Points

- Mastery of professional forestry land management principles, practices, and concepts sufficient to serve as the technical authority for the full range of duties involved in the development and review of the regional fire management and air operations program.
- Comprehensive knowledge of fire ecology, fire behavior, fire hazard and risk analysis, fuel volume and flammability assessment, smoke management techniques, meteorology and aircraft operating characteristics sufficient to perform consultative, program development, and oversight services for the forestry program.
- Comprehensive knowledge and understanding of principles and practices of multiple-use management of forest resources sufficient to devise and incorporate techniques and objectives of fire management into specific regional resource plans and programs to achieve complementary effects on timber, watershed, and wildlife habitat management and the enhancement of forest areas for recreational use.
- Extensive knowledge of the latest developments in the fire management and aircraft operations field to adapt or use these developments to achieve long term objectives of forest land management.
- Comprehensive knowledge of agency policies, procedures, and regulatory requirements covering the use of forest resources.

Factor 2, Supervisory Controls - Level 2-5 -- 650 Points

The supervisor provides guidance primarily in the form of general policy directives and budget constraints.

The forester independently initiates new projects or activities, formulates and executes new programs, approves technical deviations, and enforces policies and standards.

The forester's decisions and recommendations vitally affect work operations, are accepted as technically sound, and form the basis for important actions, including obligating funds and approving or disapproving projects, plans, and technical specifications.

The review of the work is primarily for conformance to overall policies and administrative controls.

Factor 3, Guidelines - Level 3-5 -- 650 Points

Guidelines are broadly stated agency regulations, policy statements, and Federal land management statutes. Many of the problems encountered are highly unusual, subject to intense controversy as to approach to be taken or there is scant definitive and authoritative information available. The forester exercises a high degree of originality and creativity in developing new

methods and techniques which create precedents in the fire management and air operations area and which frequently influence regional and national agency standards or methodology.

Factor 4 Complexity - Level 4-5 -- 325 Points

Assignments involve a broad range of duties in the fields of fire management and air operations. Primary responsibility is to provide technical guidance, program development and review, and coordination with resource uses for a fire management/air operation program covering forest land in one or more States.

The land area and the functional programs, are characterized by a significant number of complex features including: (1) the land area is characterized by terrain that varies from gently rolling terrain to steep, rough, and mountainous areas, with an elevation range from 1,000 to 13,500 feet and it includes wilderness or primitive areas which accounts for approximately 10 percent of the Federal land mass; (2) a large number of widely scattered, but extensive areas of Federal & non-federal forest lands, many of which support nearly continuous fuel bodies capable of sustaining large and destructive wildfires; (3) extensive commercial timber stands (approximately 70-80 billion board feet) which provide significant support for a number of dependent communities and industries; (4) extreme variables involving geography, elevation, climate, ground cover, lightning occurrence, and rate of ignition and spread, which have a decided effect on plans, methods, procedures, and policies of all fire control activities; (5) an average annual occurrence of more than 1,000 fires of all classes of which more than 25 percent are caused by people; (6) a wide variety of fuels ranging from cheatgrass and other flash fuels to heavier types, such as brush and logging slash; and (7) extended periods with little or no precipitation, periodic heavy concentration of lightning and high velocity winds.

The work involves many areas of uncertainty, and the complex interaction of a number of technical, resource, administrative, and socioeconomic problems. This requires the development of new techniques and criteria, or the prescription of particular practices, in the resolution of a wide range of different issues in diverse environmental situations.

Factor 5, Scope and Effect - Level 5-5 -- 325 Points

The purpose of the work is to provide technical and program management expertise to ensure the adequacy and effectiveness of the regional fire management and air operations program and its integration with all resource programs, objectives, and policies.

The forester's work, through program design, field evaluations, and anticipatory actions on incipient fire/land management problems has a significant effect or influence in the development and completion of regional, and, at times, agency-wide land management policies, programs, and actions.

Factor 6, Personal Contact - Level 6-3 -- 60 Points

Contacts are with foresters and other subject matter experts in lower level units, in regional and agency headquarters and other Federal agencies, with State and municipal officials, and with private land-owners in timber and fire control protective associations.

Factor 7, Purpose of Contacts - Level 7-3 -- 120 Points

Contacts are for the purpose of exchanging information, coordinating work efforts and plans, assessing adequacy of activities, providing technical advice and guidance, and resolving problems. Contacts also involve influencing or persuading other subject matter experts to adopt a particular course of action, or to change direction, in a particular resource activity due to technical fire management considerations which are in conflict with a proposed resource objective.

Factor 8, Physical Demands - Level 8-1 -- 5 Points

The work is primarily sedentary; the job does require intermittent physical exertion such as walking over rough or rocky terrain while inspecting field operations, but it is not on a sustained or regular basis.

Factor 9, Work Environment - Level 9-1 -- 5 Points

The work is usually performed in an office setting; occasionally some exposure to discomfort or risk is encountered on field trips such as extreme heat or cold, or exposure to fire situations.

TOTAL POINTS – 3690

FORESTER, GS-0460-14; BMK #2**Duties**

Serves as a technical authority on reforestation in the national headquarters office. The Forester develops and provides direction for national policies, standards, and procedures pertaining to silvicultural practices and techniques directed toward reforestation of timberlands and the improvement of existing stands of young growth timber at field levels. These responsibilities include agency application of resource and land management statutes to ensure that lands are maintained in appropriate forest cover with species of trees, degree of stocking, rate of growth, and conditions of stand designated to secure the maximum benefits of multiple use sustained yield management in accordance with land management plans and statutory requirements. Such policies, standards, and procedures must be correlated with other use of the land, particularly the preservation of watersheds and the maintenance and improvement of favorable habitats for fish and wildlife, and favorable environment for outdoor recreation.

- Formulates, develops, and recommends national policies, standards, and procedures relating to reforestation of nonstocked commercial and noncommercial forest land, the treatment of timber stands to increase quantity and improve quality of growth, the determination of backlog and current reforestation and timber stand improvement needs, and the protection of young trees from damage including losses from rodents, insects, and animals.
- Reviews plans submitted by field offices for reforestation, timber stand improvement, and nursery construction and expansion programs and recommends approval or modifies plans as appropriate; prepares estimates of funds necessary to accomplish projects.
- Correlates diverse plans for reforestation and timber stand improvement on a national basis and recommends priority of projects.
- Reviews environmental analysis reports, contract clauses, and other related material prepared by field offices to check adequacy of provisions for reforestation and timber stand improvement; recommends changes where needed.
- Analyzes plans submitted by field offices and prepares (1) a national reforestation and timber stand improvement accomplishment report, and (2) a national reforestation and timber stand improvement report for submission to the Congress.
- Reviews cost/benefit analyses made at field locations and prepares an analysis of past trends and costs tied to increased timber yields.
- Provides advice and guidance to diverse groups on methods and techniques for implementing effective silvicultural methods and practices, reforesting timberland, and improving the vigor and growth of existing stands.
- Makes functional inspections of resource management activities to gauge effectiveness of existing policies and techniques and/or to determine where deficient or inadequate nationwide operating policies and techniques require additional study and revision.

Factor 1, Knowledge Required by the Position - Level 1-8 -- 1550 Points

- Mastery of the concepts, principles and practices of forestry sufficient to serve as an expert in the development of national policies, standards and procedures for the reforestation of timber lands and the improvement of timber stands on forested lands.
- A comprehensive knowledge of latest research findings and technological advances in silviculture and insect and disease control, as well as wildlife, sufficient to evaluate these developments and experimental theories, to determine their applicability and cost effectiveness in relation to the varied environmental characteristics throughout the Nation, and to incorporate them into national directives for application and implementation at subordinate field levels.

- A comprehensive knowledge of silvics, dendrology, reforestation methods and harvest systems and equipment; familiarity with related disciplines such as wildlife habitat management, zoology, plant genetics, hydrology, soil science, and entomology, plant pathology and physiology sufficient to develop national guidance on criteria, policies, standards and procedures for overall silvicultural land management programs.
- An indepth knowledge of climate, soil, plant and animal association, insects, fungi, and soil microorganisms and their various influences on all elements of reforestation.
- A comprehensive knowledge of agency management policies, procedures and regulatory requirements regarding the development and use of timber and associated multiple-use objectives.

Factor 2, Supervisory Controls - Level 2-5 -- 650 Points

The supervisory guidance is primarily in the form of broad program objectives, budget constraints and national legislation.

The incumbent independently plans work, initiates new projects, formulates new procedures and approves technical deviations from nation-wide standards or procedures.

The incumbent's decisions and recommendations vitally affect work operations throughout the agency and are accepted as technically sound. Decisions and recommendations form the basis for important actions, including obligating funds and approving or disapproving major plans, projects and other work submitted by field offices. Review of the work is for conformance with overall agency policy and program objectives.

Factor 3, Guidelines - Level 3-5 -- 650 Points

Guidelines are broadly stated agency regulations, bureau policy statements and Federal land management statutes. These guidelines embrace a range of concepts and procedures which require or permit broad latitude for independent and innovative action due to the wide variety of physical, biological and socio-economic conditions and issues which are found throughout the entire Nation.

The incumbent must exercise a high degree of originality and creativity in researching and developing new or substantially modifying existing specifications and criteria for vegetative manipulation and stand conversion to conform with the many varying land management plans throughout the agency.

Factor 4, Complexity - Level 4-5 -- 325 Points

Assignments involve site preparation, reforestation and timber stand improvement, silvicultural equipment and systems, and insect and disease control. Primary responsibility is to provide advice and guidance, to develop national technical guidelines, standards and procedures, and to review and evaluate their results through on-site inspection, analysis of written reports, etc.

The forester must analyze and resolve critical and complex silvicultural problems, and devise new procedures from experimental data or "evidence" which is often not clear as to the applicability to specific conditions and sites. Incumbent provides advice in silvicultural situations whose solutions require an array of techniques or new combinations of approaches due to such factors as a wide variance in site and tree quality, type and species, soil or climatic conditions; situations where there have been repeated failure to overcome problems through conventional approaches; and serious and conflicting interest and opinions of various affected publics due to differing socioeconomic conditions and aims.

The work requires resourcefulness and imagination to: (1) evaluate the appropriateness and technological effectiveness of projects originating at lower levels; (2) interpret technical principles and guidelines in the context of complex problems which embody numerous variables and combinations of silvicultural conditions that must be considered concurrently; (3) develop methods, standards, or techniques which involve significant departures from current practices; and (4) develop solutions to highly controversial and/or unique problems.

Factor 5, Scope and Effect - Level 5-6 -- 450 Points

The purpose of the work is to provide advisory expertise at the national level for the identification and resolution of critical site preparation, reforestation, timber stand improvement, and other silvicultural problems.

The results of the work have a significant impact on the establishment, composition and growth of all commercial forest lands administered by the agency; on the accomplishment of national goals for resource management, development and use; on the adoption of new or modification of existing policies affecting resource management, development and use; and on the social and economic well-being of a substantial number of dependent communities and industries on a long-term basis.

Factor 6, Personal Contacts - Level 6-3 -- 60 Points

Contacts are with research foresters and others in the Federal government, in State agencies, in private industry and associations, in universities, and with specialists in related disciplines both within and outside the unit.

Factor 7, Purpose of Contacts - Level 7-3 -- 120 Points

Contacts are for the purpose of coordinating work efforts, assessing the adequacy of reforestation planning activities, discussing proposed plans, providing advice, and resolving critical problems on various forest units. Contacts involve negotiations or persuasion to ensure acceptance and adoption of technical methods and techniques which may be "new" or in conflict with the tendencies or opinions of operating staff and line foresters, both at lower and higher levels in the organization.

Contacts are also for the purpose of persuading or encouraging authoritative scientists in private industry, universities, or forestry research organizations within the bureau to develop new techniques or to pursue a particular line of inquiry, and to work with them in developing practical applications of new forestry technology.

Factor 8, Physical Demands - Levels 8-1 -- 5 Points

The work is largely sedentary, although some physical activity is required when making inspection trips.

Factor 9, Work Environment - Level 9-1 -- 5 Points

Work is primarily performed in an office setting, with some travel to review field operations.

TOTAL POINTS -- 3815

FORESTER, GS-0460-15; BMK #1**Duties**

Serves as the nationally recognized expert and program authority at the national headquarters office for the timber sales function of the national timber management program.

- Develops national policies, standards, guides, and instructions for sale preparation, valuation, timber sale administration, long-range sales programs and current action plans; devises methods and techniques for reflecting the effect of variables such as timber quality, size, defects, stand per acre, and logging conditions on timber value and costs.
- Provides national leadership and technical direction in the formulation of plans for conducting logging engineering studies necessary to determine logging methods appropriate to varying economic and environmental conditions.
- Studies and analyzes economic conditions and market-trends as they relate to and affect the financial aspects of timber management policies, and formulates and recommends

- new or modified policies and plans covering the valuation of timber and the establishment of minimum selling prices; establishes procedures and practices to properly bill and record payment for timber cut and scaled in order to provide national statistics, collect and analyze costs, and to establish and maintain a fair market price level for timber products on forest lands.
- Reviews appraisals, reappraisals and recommendations for the sale of timber or the exchange of Federally owned timber-land for privately owned land and effectively recommends disposition of such actions to the bureau head.
 - Collaborates with research and laboratory field units on the development of National Log and Tree Grading Standards and timber quality performance tables.
 - Reviews appeals by bidders on decisions made by high level agency field personnel on major timber sale proposals; prepares appeal decision and supporting rationale for top agency management.
 - Reviews and recommends responses to legislative proposals relating to timber sale activities. Prepares proposed legislation for appropriate Congressional Committees on matters associated with timber sales, and recommends alternative wording on proposals generated outside the agency.
 - Serves as a nationally recognized authority on timber sale technical and economic policies, practices and techniques, and provides advice, assistance and counsel to other agency organizations and to public and private agencies.
 - Represents the agency in meetings, conferences and negotiations with other Federal and State agencies and with non-Governmental organizations such as national forest products organizations; commits agency to a course of action on complex or controversial technical or socio-economic matters involving nationwide forest land timber sale policies and procedures.
 - Serves as the agency spokesperson to the national media on questions relating to the impact of legislation, changes in Administration policies and practices and other similar actions which pertain to agency-wide timber sale programs.

Factor 1, Knowledge Required by the Positions - Level 1-8 -- 1850 Points

- Mastery of the concepts, principles, and practices of forest management sufficient to serve as the national program leader and technical authority on timber sale policy, preparation, and administration, including feasibility studies and economic analysis, and professional recognition and skill sufficient to: (1) assure cooperation and acceptance of evaluations and recommendations by other high level experts, and (2) develop, interpret, advocate and justify new or modified programs involving highly complex technical or socioeconomic problems.

- Comprehensive knowledge of advanced silviculture, dendrology, and forest mensuration technology to develop new theoretical and programmatic concepts in conjunction with the formulation of short and long-range policies, procedures, standards and guidelines for timber stand appraisal, sale preparation, harvesting techniques, log scaling, and post sale administration.
- Comprehensive knowledge and understanding of principles and practices of multiple-use management of forest resources sufficient to devise, incorporate, and coordinate timber sales and harvest techniques and objectives with land management plans in such areas as wildlife habitat management, watershed improvement, fuels management, and environmental protection.
- Working knowledge of related resource disciplines such as wildlife biology, watershed management, and multiple-use resource planning to understand interrelationships between assigned program goals and the management and development of the other biological and physical resources.

Factor 2, Supervisory Controls - Level 2-5 -- 650 Points

The supervisory guidance is primarily in the form of general policy directives, statutory requirements, and staff, time, or budget constraints.

The employee typically develops concepts and initiates new projects or activities independently. The employee is the principal technical and program advisor to and collaborator with the supervisor on timber sale related issues. The employee keeps the supervisor informed of progress on major issues but recommendations and decisions of the employee are accepted as technically authoritative even though final approval may depend upon formal action of the employee's superiors.

Completed work is generally reviewed for assurance that broad land management policy objectives are fulfilled.

Factor 3 Guidelines - Level 3-5 -- 650 Points

Guidelines are broadly stated natural resource and land management statutes, agency policy and regulations, research publications, and regulations, standards, policies, and procedures of other Federal Agencies.

There have been numerous legislative changes in recent years that have had a major impact on all natural resource activities including timber management. The incumbent must exercise a high degree of judgment and originality to interpret the laws and regulations and to develop agency policy, standards, concepts, and procedures in the functional area of timber sales. On occasion, the incumbent will draft agency regulations for top management.

Factor 4, Complexity - Level 4-6 -- 450 Points

Assignments involve the full range of processes, systems, and components pertinent to timber sales. Some of the processes have been found to be theoretically sound but not necessarily economically feasible, to date. While the processes are theoretically sound, acceptable methods, practices and techniques are in a state of change due to legislative changes and concomitant changes in Administration policy. Primary responsibility is (a) to assess, advise, and report on the technological and economic feasibility of processes, systems and components of a national timber sale program and (b) individual projects or studies undertaken will further the objectives of the organization's resource management policies and programs. Most of the projects and studies generally involve the establishment of new, or the refinement of existing policies, methods and concepts. They involve highly complex technical and socio-economic problems with many areas of uncertainty; the employee's recommendations and decisions are consequently under close scrutiny by leaders of major public interest groups which typically have differing aims.

Factor 5, Scope and Effect - Level 5-6 -- 450 Points

The primary purpose of the position is to provide expert advice and guidance to foresters, agency officials, and other agencies concerning the technological and economic activities associated with the national timber sales program.

The employee's actions in evaluating the need for or initiating new or different projects of studies, and changes in policies and procedures, have a short-term and long-term impact on the agency's ability to meet: (1) the nation's needs for timber supplies, and (2) the overall congressionally mandated land and resource management requirements; these actions also impact the work of other foresters and experts both within and outside the agency.

Factor 6, Personal Contacts - Level 6-4 -- 110 Points

Personal contacts are with high ranking scientific and professional personnel in agency headquarters, in other State and Federal agencies and departments; with high level officials of nationwide trade associations, private industrial firms, organizations such as the National Association of Counties; with congressional staff members; and with nationally known representatives of news media and environmental groups.

Factor 7, Purpose of Contacts - Level 7-4 -- 220 Points

The purpose is (1) to provide expert opinion and advice on technological advances, economic and technological feasibility studies, agency policies, procedures and standards, and current and proposed legislation; (2) to defend, justify, or settle controversial technological or socio-economic issues involving such activities.

Assignments also involve active participation in high level conferences, negotiations, and meetings on such issues as the compliance of contractors with equal employment, preferential

timber sale awards to small and minority business (set-asides), exports of logs to foreign countries, availability of timber supply for housing construction, and environmental quality standards. The employee must be able to influence or persuade other experts to adopt particular approaches, concepts or compromises when serious conflicts arise.

Factor 8, Physical Demands - Level 8-1 -- 5 Points

The work is primarily sedentary in nature; however, the job does require some physical exertion when inspecting field operations.

Factor 9, Work Environment - Level 9-1 -- 5 Points

Work is performed in an office setting with some travel to attend meetings, symposia, and conferences.

TOTAL POINTS – 4390

PART II

FORESTER (ADMINISTRATION), GS-0460-09

Foresters (Administration) GS-9 are typically responsible for technical and administrative supervision and management of a forest area involving the planning, coordination, and execution of programs of limited complexity.

Positions of Forester (Administration) GS-9 involve forest areas with duties similar to those of Forester (Administration) GS-11, but of less variety, complexity, and scope. At the GS-9 grade level, areas are characterized by conditions such as the following which require limited experience in the application of scientific and managerial forestry practices:

- (1) Relatively few problems in resource management or general administration of the area other than in relatively routine protection from fire, insects, disease, and trespass.
- (2) The various resources are characteristically not under intensive multiple-use management or heavy utilization.
- (3) The workload is such that the Forester (Administration) can personally perform all or almost all of the professional and technical forestry work of the GS-7 or higher level.

FORESTER (ADMINISTRATION), GS-0460-11

Nature of the Assignment

Foresters (Administration) GS-11 are typically responsible for technical and administrative supervision and management of a forest area involving the planning, coordination, and execution of programs of ordinary complexity.

The forest area under intensive management typically has one or two major resources with some limited additional activity in several other resources, e.g., timber, recreation, soil and water, wildlife, range, etc. The work also includes operating responsibility for administrative functions such as financial management, personnel management, and information and education for the forest area administered. To accomplish their assigned responsibilities, Foresters (Administration) GS-11 typically supervise a small subordinate staff of two or three professional foresters and technicians, in grades GS-7 and GS-9, plus regular and seasonal support personnel. Foresters (Administration) GS-11 are both land managers and fully operating professionals in all conventional aspects of their area of assignment. They perform a variety of assignments in which they independently resolve complex problems on a regular or recurring basis.

The Forester (Administration) GS-11 administers the multiple-use management program for his area. He typically (1) formulates work programs; (2) continuously appraises resources in the light of changing economic and public benefit factors; (3) develops annual work plans for each resource, consistent with the applicable multiple-use plan; (4) reviews and evaluates progress and adjusts plans as needed; (5) coordinates requests of forest users and takes action to obtain compliance with regulations and contractual requirements; (6) reviews landownership patterns within and adjacent to the forest area in order to recommend acquisitions, exchanges, or rights-of-way to facilitate administration and protection of the area; (7) provides local and community leadership in promoting adoption of sustained yield in the management of privately-owned forest and range land within or adjacent to the forest area; and (8) recruits, trains, and supervises the subordinate staff including seasonal employees carrying out the work programs and support activities.

Positions at this level are characterized by one or a combination of work situations such as the following:

1. A substantial program for management of the recreation resource requires the forester to gear the resource programs to critical recreational use conditions and/or to heavy public demands for development of recreation resource facilities. In either case the overall multiple-use management objectives must be met.
2. The timber management function is a major activity and is complicated by, for example, high volume and/or value of the timber sold in a number of separate timber sale agreements for large and small sales, and either (a) or (b) below:

- (a) The dependency of local industries and communities on continuing supply of timber from the area for economic stability involve (1) long-range plans and utilization which take into account the effect on the local communities and industries and provide for maximum production and yield of timber and community benefits; (2) pressures from logging and sawmill operators to exceed the annual allowable cut regardless of the effect on future crops; and (3) keen competition for timber between large and small companies, requiring careful consideration in determining size of sales to be recommended to protect small companies, while providing adequate timber to large operators; or
 - (b) A variety of distinct timber types with light cuts per acre involving (1) complex silvicultural considerations in planning and executing a wide range of intensive timber stand improvement, reforestation, and similar silvicultural development activities, and (2) significant pressures and public relations problems in developing uses and markets.
- 3. A variety of resource activities where the work program is complicated by major problems of soil and water management, which require incumbent to gear the resource programs to the critical watershed management condition and yet fully meet the multiple-use management objectives. The GS-11 forester is required to provide a current program of balanced planning and development of the soil and water resources of the area, which may range from esthetic wilderness to agricultural and complex commercial or industrial-economic developments.
- 4. The improvement of landownership patterns within the assigned area and meeting the demand for various special land uses (rights of way, mining claims, mineral or oil leases, or uses by other agencies, etc.), are complicated by the technical and administrative problems involved in evaluating conflicts among potential uses, conflicting public demands, and the need to negotiate extensively with private landowners and State or community representatives.
- 5. Commercial grazing is of major economic significance, but must be coordinated with other forest uses. Problems of considerable intensity result from the presence, in various combinations of the following: (a) the demand for range use exceeds the carrying capacity of the land, to the extent that the forester is faced with difficult problems of adjusting the stocking of the range to conform with proper grazing capacity; (b) over-grazing and other undesirable past practices have resulted in the emergence of problem areas which require the forester to effectuate range improvements, such as fencing, water developments, and reseeding, as well as changes in management practices with respect to grazing seasons, reductions in numbers and kinds of livestock, changes in allotment boundaries, etc., in attempting to restore the range to a satisfactory condition; and (c) pressures from competing users of lands for timber, recreation, wildlife, water production, etc., require that he engage in frequent negotiations and coordination with users of the range, timber operators, advisory groups, and private and nonprofit organizations in developing and achieving acceptance of plans for the improvement of problem areas.

Mental Demands

Foresters (Administration) GS-11 must possess and utilize (1) a broad knowledge of forestry principles, techniques, and standards, as well as a working familiarity with related disciplines, such as entomology, ecology, plant pathology, hydrology, economics, mineral resource management, public budgeting and financial management, and public relations; (2) skill in interpreting and applying such guides in the resolution of a wide variety of problems; and (3) ability to manage the general scope of forestry operations within an assigned geographic area.

Foresters (Administration) GS-11 are required to make frequent interpretations and adaptations of existing guides and instructions to deal with complex and varying situations, and to apply a knowledge of organizational policies and of scientific methods and practices to a variety of complex activities and decisions. They are required to exercise independence and resourcefulness in recommending management plans and in translating approved plans into action programs.

Such applications of judgment and resourcefulness involve the continuing evaluation of silvicultural, socio-economic, and other factors related to the characteristics, conditions, uses, and values of several resources; the changing demands of scientific programs and plans; and the continuous awareness of responsibility for protecting the Government's interest.

Level of Responsibility

Assignments to Foresters (Administration) GS-11 are general, and delegations are broad and extensive. They are expected to provide leadership, planning, knowledge, coordination, and decision in connection with administrative and technical problems and relationships. Matters referred to the supervisor include policy interpretations beyond delegated authority, approval of contracts, agreements, special use permits, and timber sales above a specified minimum amount, and controversial administrative problems, typically with consequences extending beyond the assigned forest area. The work is reviewed at appropriate intervals for technical adequacy and sufficiency, accomplishment of objectives, effectiveness of coordination, and operational work relationships.

Foresters (Administration) GS-11 usually resolve controversial policy questions by joint consideration with the supervisor. Decisions and recommendations based upon the application of standard forestry practices are rarely changed by higher authority, except for reasons of policy, public relations, or budgetary considerations. Technical decisions occasionally involve the expenditure of large sums of money.

Personal Work Relationships

Foresters (Administration) GS-11 have personal work relationships with colleagues, with the general public, and with representatives of newspapers, radio stations, educational institutions, and other organizations of mutual interest in the assigned area for the purpose of coordinating and securing cooperation and understanding of agency programs GS-11 foresters resolve substantial problems in maintaining effective work relationships with forest users, officials of other agencies, and with the general public.

Foresters (Administration) GS-11 exercise leadership in working with local groups and individuals in promoting the adoption and practice of sustained yield management on privately-owned forest and range lands intermingled with or adjacent to Federal forest areas.

FORESTER (ADMINISTRATION), GS-0460-12

Nature of the Assignment

Foresters (Administration) GS-12 are typically responsible for the technical and administrative supervision and management of a forest area with especially complex and difficult programs, typically of substantial magnitude and scope. They execute essentially the same general functions as are described at the preceding grade level. However, conditions create numerous complex problems and conflicting requirements whose resolution may have public impacts out of proportion to the real facts and issues. These may involve sensitive and important special surveys and studies. In addition to the work required at the next lower grade, Foresters (Administration) GS-12 typically are under very strong public demands and pressures to increase the use of the intensively managed resources beyond the existing estimated full utilization capacity.

Another area of differentiation between the GS-12 grade level and the next lower grade level is found in the workload situation. In positions of Forester (Administration) GS-12, the workload ranges from a heavy overall load with a wide variety of resources, to situations of an unusually heavy load in one or two activities. Typically, the management of the resources requires a substantial number, e.g., six or more professionals and technicians in grades GS-7, 9, and 11 plus support personnel.

Foresters (Administration) GS-12 emphasize managerial and professional leadership duties. Subordinates perform most of the planning and supervision of work in the field. At GS-11 there is more emphasis on personal development and supervision of execution of annual and short-range plans by the Forester (Administration).

Characteristics of the forest area, which usually indicate the variety and complexity of problems found in positions of Forester (Administration) GS-12, are illustrated by the following situations (a) or (b).

- (a) A number of major resource values are present (e.g., 4 to 6) with important multiple-use applications. Multiple-use integration and coordination are prominent and complex, because of conflicts in objectives and techniques inherent in the major resources and their multiple-use. Demands for the resources, some of which exceed the sustained yield capacity of the area, are met by emphasizing the long-range development of the resources in the area, usually resulting in increased demands and needs for the resources.

The various intensively managed resources have complexities such as three or four of the following: (1) over-use has led to a need for extensive rehabilitation; (2) community dependency or pressure from industry, business, sportsmen, or other organizations require development of increased facilities or re-channeling of resource uses; (3) conflicts in potential use and current demands require expanded long-range development and redirection of resource use and management; (4) intensive studies are needed to determine the direction of resource development; and (5) high resource values and scarcities require development of the resource and its increased use. Long-range development planning is a substantial and significant item of the work, and is so reflected in the programming and planning documents.

- (b) One or more major resource values are present to an unusually prominent degree, e.g., in the top 105, of forest subdivisions on a nationwide basis; and the various support and protective and administrative functions are present. The management, protection, and utilization of the resources create intensive administrative and technical problems of unusual complexity and heavy workload. Such a forest area would characteristically involve a very heavy timber management program in which silvicultural problems represent the full range (timber stand improvement, genetic tree improvement, reforestation, seed collection, tree planting, transplant orchards, and complex cut and harvesting techniques) of those involved in intensive management. Additional problems include slash disposal, with associated fire control, which is of extreme importance because of unusually large cuts, and multiple-use correlation of timber management with dispersed recreation, wildlife habitat, and watershed management. Some illustrative complicating factors are: (1) the greater part of the economic support of the community is geared to the continued availability of Federal timber, timber management, and related activities, and thousands of persons are dependent on the lumbering and related industry and commerce of the immediate economic area; and (2) highly complex problems in the development of plans for correlated resource management and in resolving or alleviating conflicting objectives of various governmental, quasi-public, and private groups or interests.

Mental Demands

Foresters (Administration) GS-12 must use extensive initiative, ingenuity, and judgment in devising new schemes of attack, as well as in developing novel techniques and methods. They are characteristically called upon to provide additional procedural instructions, improvisations, and exceptions to existing guides and precedents. This requirement which arises out of the especially complex and difficult nature of the execution program is characteristically an important grade-determining factor for Forester (Administration) GS-12 positions.

Level of Responsibility

As at GS-11, completed work (written recommendations, reports, and pilot-study data or test data) is reviewed for validity and propriety of results. Controversial findings or novel findings and recommendations are scrutinized for correctness of assumptions, methods, adapted techniques, and applicability to the problems. In addition, Foresters (Administration) GS-12, as technical and administrative experts who are occasionally assigned more sensitive and consequential surveys and investigations, complete assignments with less review or scrutiny.

Personal Work Relationships

Foresters (Administration) GS-12 have personal work relationships similar to those at GS-11. In addition, because of the especially complex and controversial technical and administrative situations, the personal contact work of GS-12 positions is of substantial consequence to public acceptance and the effectiveness of the program. For example, a GS-12 forester occasionally serves as the official representative and spokesman in contacts with influential community leaders, and with officials of other governmental units, private interests, and forest users.

FORESTER (ADMINISTRATION), GS-0460-13

Nature of the Assignment

Foresters (Administration) GS-13 are typically responsible for technical and administrative supervision and management of a forest involving the managerial planning, coordination, and execution of programs of full complexity. The forester is also directly responsible for functions such as engineering and general business and administrative management and services for the forest area administered.

The large areas of forest land are typically subdivided into smaller areas under the supervision of Foresters (Administration) of lower grade. The administration of the forest involves management of a variety of forest resources under intensive multiple use, with several of the resources under sustained yield over a majority of the forest area, or situations in which current demands or needs for development of the resources create complex problems in reaching sustained yield.

Positions of Forester (Administration) GS-13 are typically complicated by three or four of the following types of interrelated conditions:

- (1) Socio-economic factors which the forester must consider in the development of resource management plans (immediate and long range) to provide the highest sustained-yield production to support the economic and social stability of competing communities and industries.

- (2) Critical forest protection problems, such as (a) a high forest fire potential because of fuel and climatic conditions, frequent lightning strikes, incendiarism, or other causes, and a high potential loss due to damage to or destruction of the timber and other resources affecting the socio-economic stability of the local area, or (b) widespread attacks of harmful forest insects or diseases endangering the timber resources as a contributing element to community, State, and regional welfare and stability.
- (3) A complex land pattern, with numerous large and small intermingled areas within the boundaries of assigned forest areas in private ownership.
- (4) A variety of physiographic zones with significant differences in topography, drainage, climate, soils, and forest vegetation, which present a wide variety of forestry problems.
- (5) Public relations problems of major scope and importance in (a) developing public support and understanding of programs and objectives within the zone of influence of the forest area, and (b) providing counsel and leadership in resolving controversial issues actually or potentially detrimental to the recognized concepts of good forest management, and frequently involving large segments of local and contiguous populations, as well as various groups, organizations, and individuals.

Responsibilities of the Forester (Administration) GS-13 include planning, scheduling, coordinating, and administering the work program. He provides information and expert counsel to higher headquarters concerning local conditions and the current and anticipated effect of proposed plans, programs, and policies, and makes highly significant contributions in the formulation, promulgation, and effectuation of regional forestry policies and programs.

He currently reviews and appraises the timber, water, and other resources and determines ability of the various resources under existing conditions of management and utilization to meet present and future demands. He evaluates the effects of changing socio-economic, cultural, and forest welfare conditions on the supply of and demand for such resources and services. Based on such appraisals and evaluations, he formulates forest programs and makes recommendations for new programs or modifications of existing regional programs and policies.

The Forester (Administration) GS-13 promotes public understanding and support of sound land management objectives and practices through personal contacts and dissemination of approved information and materials; cooperates with State officials and representatives of other Federal agencies in developing and applying desirable conservation measures on State and privately-owned lands; serves as advisor or informal arbitrator in resolving local controversies; maintains current and accurate knowledge of economic-industrial trends within the general area served by the forest; and exercises leadership in adapting local forest activities to objectives.

The Forester (Administration) GS-13 is responsible for the establishment and maintenance of action programs and operations on the forest, and for coordinating and integrating the various resource and related activities into comprehensive multiple-use and sustained-yield management

programs. He controls and evaluates subdivision programs and operations through on-site inspections and periodic reporting.

Mental Demands

Foresters (Administration) GS-13 make frequent interpretations and adaptations of existing guides and instructions to deal with complex and varying situations. They are also required to develop and authorize basic forest-wide procedures for the guidance of others. Foresters (Administration) GS-13 are required to demonstrate leadership, resourcefulness, tact, and diplomacy in dealing with the public and with groups and individuals having conflicting interests.

A high degree of judgment and sensitivity to public demands and viewpoints is required of the Forester (Administration) in formulating and devising programs and plans to meet highly varied conditions and situations throughout the forest, in determining the adequacy of plans submitted by staff assistants and by the heads of organizational subdivisions of the forest, and in recognizing the need for and approving deviations from established policies and standards to meet emergency or unprecedented situations.

Level of Responsibility

Work of the Forester (Administration) GS-13 is performed under the general guidance of the regional administrator. Matters referred to the regional administrator include decisions beyond delegated authority, e.g., large timber sales, questions crossing local interest or jurisdictional lines, and administrative problems involving controversies, typically with consequences which extend beyond the forest. The forester's work is reviewed or inspected at appropriate intervals for technical program adequacy and sufficiency, degree of accomplishment of immediate and long-range objectives, effectiveness of forest-wide coordination and the relationships and morale of the work force. The extremely significant long-range plans and programs are thoroughly reviewed by the regional administrator and his staff for adherence to overall policies and objectives, and for proper coordination with related activities of other forests.

Personal Work Relationships

The Forester (Administration) GS-13 personally represents the agency at meetings and conferences, a significant portion of which are of regional scope and importance, at which he outlines and explains the agency's programs, policies, and objectives. As representative on various State and local committees concerned with forestry and related matters, he discusses forestry matters and makes commitments which are considered as authoritative and binding. In addition, he establishes and maintains close contact and cooperative relations with local forest users, permittees, and timber sale operators, as well as with representatives of other governmental units, educational institutions, conservation groups, representatives of news media, and with the general user public within the area served by the forest. He enlists interest, cooperation, and support for programs and objectives. He maintains contacts with the

professional forestry units in his area and keeps abreast of changes of innovations in the profession.

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Nature of the Assignment

Foresters (Administration) GS-14 are typically responsible for technical and administrative supervision and management of a forest area with especially complex and difficult forestry and related programs, of major magnitude and scope.

In terms of program magnitude, intensity, and complexity, the forestry programs of Foresters (Administration) GS-14 typically involve the combination of items A through E below, or the equivalent.

- A. (1) The planning, administration, and program control of the resource management, protection, and development activities in the forest jurisdiction; (2) special programs such as public works, rural area development, cooperative activities, and other special projects to relieve social and economic problems; and (3) substantial continuing programmed work in the forest area in improvements, roads and trails, and information and education, to facilitate the understanding and attainment of intensively managed resource programs and activities, all in combination require management of a large or extremely large, professional and managerial staff, including specialists in fields such as engineering, wildlife biology, landscape architecture, soils, range, hydrology, accounting, and administrative management, as well as foresters.
- B. The resources of the assigned forest area include intensive multiple-use management and protection of three or four major forest resources which are of substantial socio-economic importance, such as timber, forage, water, wildlife, recreation, and other land uses; or one or more major resources which are of outstanding magnitude, importance, and complexity, e.g., a forest with heavy timber sales activity and several million winter and summer recreation visits. Heavy demands exist for increased use of two or more of the resources above the current use. Substantial developmental or rehabilitative activities are planned and in process to meet such demands.
- C. The formulation of policies and plans presents especially difficult problems because of the complexity and importance of relationships with landowners, representatives of States and industry, elected governmental representatives, and scientific and other private or quasi-public groups. The impact of the assigned forestry programs on socio-economic conditions and interests results in (1) expressions from governmental representatives and others regarding conflicting interests; (2) increasing competition for forest resources and services; and (3) cooperative agreements negotiated by the forester and his staff. The situations described in this paragraph increase the sphere of influence of the position of Forester (Administration), and thus intensify the responsibility for personal work

relationships, decisions, commitments, public information contacts, and professional leadership.

- D. Especially complex socio-economic and public interest problems are related to the dependency of communities and industries on the availability of forest resources and uses, for which markets have been or need to be developed. Such problems intensify the critical and precedent-establishing nature of the forester's recommendations and decisions, and must be considered in the development of each resource management plan.
- E. Critical protection and development problems are such as would be represented by three or four of the following: (1) protection problems involving a high forest fire potential and a high potential loss of resources affecting the socio-economic stability of the local areas; (2) protection problems related to widespread attacks of harmful forest insects and/or diseases endangering the resources as a contributing element to community, State, and regional welfare and stability; (3) complex land pattern with numerous large and intermingled small areas within the boundaries of the forest in private ownership, seriously complicating forest access for timber sales and other purposes, with a continuing and active program of land exchange and/or purchase to improve the land pattern; (4) a variety of physiographic zones which include areas where the topography, drainage, climate, soils, and forest vegetation present problems which require special studies in order to plan and coordinate extensive and critical work and to meet established objectives and required professional standards not readily met within existing manpower and financial limitations; or (5) major areas of forest land within the area of influence are or have been subject to misuse or overuse, thus requiring extensive resource rehabilitation or development work.

Mental Demands

In addition to the requirements at GS-13, Foresters (Administration) GS-14 are characteristically required to engage in planning and executing highly important and/or critical programs for which guidelines are inadequate, and must resolve problems largely on the basis of unprecedented managerial action tailored to the unusual complexities of each given situation. They characteristically demonstrate a high degree of originality and innovation in executing the broad administrative responsibilities of their job.

Level of Responsibility

The forester's final actions ordinarily have a strong impact on the development of the regional program, on the establishment of standards and guides for the forest, and frequently on the administration of the regional program. As representatives of their agency, Foresters (Administration) GS-14 reach agreements with groups from other agencies and organizations, and their recommendations and decisions are almost universally accepted as technically sound, even though final approval may require formal action by others.

Personal Work Relationships

Foresters (Administration) GS-14 maintain personal work relationships similar to those at the GS-13 grade. However, in view of the characteristically more sensitive and critical problem situations the GS-14 must resolve, and the greater freedom he must necessarily be given to resolve them, the Forester (Administration) GS-14 makes official contacts with elected or appointed officials or representatives of Federal and non-Federal groups and organizations, to a degree beyond that typical of high level contacts at GS-13. The Forester (Administration) GS-14 is required to establish and maintain such contacts in resolving or alleviating pressure problems or in dealing with special interest groups.