

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

**Forest Service Handbook 6509.11f – Working Capital Fund Accounting Operations Handbook
Chapter 60 - Nursery and Seed Programs**

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

60: Renames chapter from “Nursery Service” to “Nursery and Seed Programs.”

Revises chapter with extensive updates on new programs and makes editorial changes throughout.

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60.2 - Objective

The Forest Service Working Capital Fund (WCF) Nursery System (Nurseries or stand-alone Seed Extractories) are service-based programs that provide seed and/or produce trees, shrubs, forb, and grass seedlings to support the Forest Service's commitment to restoring and enhancing the Nation's forests and grasslands. Each unit within the Nursery System is managed and operated independently from the other units.

The WCF Nursery System includes the purchase or collection of cones; extraction of seed from conifer cones, processing seed from deciduous trees, shrubs, forbs, grasses, and grass-like plants; cleaning and germination testing of seed; storing seed; and seed delivery. The WCF Nursery System operates facilities for the production of bareroot or container seedling and delivery of seedlings to the requesting Forest Service units or external public agencies.

The objective of this directive is to provide guidance for managing the WCF accounting operations for the Nursery System to ensure sustainable programs and compliance with Forest Service Manual 6580, the Finance and Accounting Working Capital Fund Manual and all applicable rules and regulations.

60.3 - Policy

The WCF Nursery System must meet the criteria for operation under the WCF for self-sustaining programs. Please refer to FSM 6580, section 6581.2 and section 6584 for the WCF criteria and guidance. All activities should be in compliance with FSM 6580 and FSM 2470.

60.4 - Responsibility

60.41 - Albuquerque Service Center - Budget & Finance (ASC-B&F)

The Albuquerque Service Center - Budget & Finance (ASC-B&F) is responsible for:

1. Recording and providing necessary current, historical, and other support cost information to Nursery System Managers (to assist in rate calculations).
2. Providing support as necessary to Nursery System Managers in the calculation of rates.
3. Reviewing and assessing, at a minimum, annually, the operations of the Nursery System to ensure compliance with the process by which funds cover the core costs expended to run the program. Funding to cover costs can come from a variety of sources including: fees, charges, grants, contracts, donations, or payments in exchange for a particular product or service.
4. Assisting Nursery System Managers and the Regions with cost-benefit analysis and planning (for example, depreciation schedule) to help determine when it is necessary and cost-effective to replace equipment.

5. Coordinating timely obligations for projected expenditures, providing relevant training and guidance, and other related activities as required.

60.42 - Nursery Systems Manager/Program Specialist

1. Estimating all costs for the Nursery System management based on the previous 5 fiscal years historical costs and including projected changes in programs, personnel, and maintenance costs to help develop and maintain an adequate reserve fund, covering at least 1 year of core costs.
2. Calculating the rates to be charged for each job based on current and historical cost information and recording rate and cost information in the appropriate financial system.
3. Ensuring that rates charged by the Nursery System follow the process by which funds cover the core costs expended to run the program. Funding to cover costs can come from a variety of sources including fees, charges, grants, contracts, donations, or payments in exchange for a particular product or service.
4. Maintaining records and providing overall financial information for all WCF Nursery System operations.
5. Developing the annual work plan and budget for the Nursery System in coordination with the Forest Supervisor, Region, and ASC-B&F.
6. Accepting relevant orders directly from National Forests, or Regions, and other public agencies within the appropriate procurement authority.
7. Coordinating orders for production of nursery stock at other Forest Service nurseries.
8. Issuing bills to individual customers (internal or external) for the cost of seed sent to other Forest Service Nurseries for growing nursery stock and for any other WCF services rendered.

60.43 - Forest Supervisor

1. Serving as an administrative line of support for the Nursery System unit.
2. Providing staff assistance with safety, engineering, public information, education, and other functions as needed for sustainable Nursery System operations. All related Nursery System expenses should be charged to WCF Nursery/Seed programs.
3. Providing the Nursery System Manager with an adequate on-site facility and staff to conduct the business and financial management of the nursery operations while providing staff assistance and training to accomplish the WCF, budget, and collections operation.

4. Ensuring that all rates charged by the Nursery System result in the recovery of core costs expended to run the program.
5. Scheduling an annual meeting for business and financial management review.
6. Collaborating with the Nursery System Managers to finalize the Nursery System annual work plan and budget.

60.44 - Region/Unit Responsibility

The Regional Offices are responsible for their Nursery System unit(s):

1. Providing cost information to Nursery System Managers as needed.
2. Providing assistance and support as needed to ensure sustainable Nursery System operations and facilities, including regional support for engineering, contracting, and other functions not carried out by the Forest unit.
3. Ensuring that the Forest Service Nursery System is the primary source for seed processing and seedling production for National Forests.
4. Collaborating with the Nursery System Managers to finalize the annual work plan and budget for the Nursery System unit(s).
5. Providing guidance on out-year reforestation/restoration plans, budget expectations, and other anticipated seed and seedling needs to assist the Nursery System Managers with budget planning and rate setting to ensure that all rates charged by the Nursery System result in the recovery of core costs expended to run the program.

61 - Nursery System Activities

The WCF Nursery System activities include 1) Seed Supply and Production, 2) Bare Root Production, 3) Container Production, and 4) Special Projects

1. Seed Supply and Production.
 - a. Seed Bank. Nursery seed banks contain conifer and other native seed that clients have collected for reforestation and restoration needs. The seeds collected and stored may be those of rare species to protect biodiversity.
 - b. Seed Processing or Extraction. Cones are heated to open cone scales to remove the seed. Plant seed heads are treated in a variety of ways depending on the type of seed to be extracted. All seeds are then cleaned by removing other plant materials and seeds not viable for germination before the seed is dried and stored. The Nursery System will process the seed on behalf of Regions/Units and extract the seed from the cones that will ultimately be used for seeding and seedling production. Most Nurseries offer seed extraction services, however, there are also Nurseries that are considered stand-alone nurseries and do not offer the extraction services. Finally,

there are also stand-alone Seed Extractories that provide only seed extractory services. The stand-alone Seed Extractories must calculate their own rate just as the Nurseries and charge units for their cost. Stand-alone Nurseries must work with either a 1) stand-alone Seed Extractory or 2) a Nursery which also offers extraction services if a Unit is requesting seedlings, to which the nursery will charge their cost rates.

c. Seed Storage. Mature seeds are held in storage until Forests/Units place orders with the nursery to produce seedlings for reforestation/restoration projects and in accordance with seed plans. There are at least three objectives for storing seeds, and each of them dictates different strategies and procedures. These objectives may be described as storage for the following periods:

- (1) Very short periods (overwinter) between collection and sowing,
- (2) Several years (10 or less) to ensure a reliable supply of seeds in the absence of annual crops, and
- (3) Long periods (10 to 50+ years) for germplasm conservation.

The strategies employed will depend on all of the factors that influence seed longevity.

d. Seed Testing. Nurseries will typically send the requested seed that needs testing to a seed laboratory for testing.

e. Low Quality and Surplus Seed. See FSM 2470. Annually review seed inventory. When seed is removed from inventory, project funds, rather than WCF should be charged, so that WCF funds are available for seed replacement. Dispose of low-quality seed or excess/surplus seed promptly and in accordance with Federal Property Regulations (FSH 6409.31, sec. 104-45.105).

2. Bare Root Production. Bare Root Production involves growing plants outdoors in rows or beds for 1 to 3 years. When harvested, the seedlings are removed from the soil by mechanical or manual means, graded, packaged, and stored for a short-term prior to the planting season. These plants may then be sold, planted in the soil again, or placed in containers to be grown into larger plants depending on the client's request.

3. Container production. Container production involves growing plants in greenhouses or shade structures in plastic or polystyrene containers for 1 to 3 years (depending on the product type).

4. Special projects. Some special projects can be considered routine, such as the Nursery System collecting seed, cleaning seed, and/or growing seedlings for a particular Region/Unit. Other special projects are unique and assist with the Forest Service's conservation efforts, such as expanding production of a particular shrub, pine, and so forth, which in turn could result in the expansion of the Nursery System (see sec. 64).

Other special projects could include research projects, administrative or genetic studies, or interpretive plantings among others. See FSM 2470 for additional guidance.

62 - Rate Calculation And Development

The WCF Nursery System must be operated as a self-sustaining program. Units through ASC B&F WCF Accountant must account for all costs incurred to operate a WCF activity. All costs including administrative support services, cost of nursery equipment, depreciation of equipment and maintenance, salaries of appropriate personnel, facility maintenance, utilities, supplies, seed cleaning and storage, seed sowing, seedling lifting, seedling packing, and transportation of seedlings, and so forth must be accounted for in Nursery rate calculations (see FSM 6586.42, Nursery Rate Development). The Nursery System may use any business process improvements to create efficiency in the calculations of these rates with the approval of all affected staff areas.

In order to ensure the recovery of core costs expended to run the WCF Nursery System operations, the following costs/analysis are considered when calculating the rates charged for services:

1. Fixed Costs.
2. Variable Costs.
3. Cash Reserve Analysis.

62.1 - Fixed Costs

Fixed Costs are costs that do not change with the increase or decrease in the number of goods or services produced. They are charged to pay for the direct replacement of the equipment, program management, and other fixed costs such as rent of facility that is used for the WCF program. The fixed cost component recovers the "fixed" cost (expense) associated with operating the Nursery System.

The fixed costs need to be built into the final rates of the cost of the goods sold.

Examples of Fixed Costs and direct expenses include, but are not limited to:

1. Fixed Managerial Costs. The cost of salaries, travel, or managerial employees when work performed is directly related to WCF Nursery System management by Regional, ASC B&F, and Washington Office employees.
2. Depreciation of Equipment used in the Nursery System.
 - a. Based on the year life cycle for new the equipment.
 - b. Annual Increased Replacement Cost (IRC) Factor. This factor must be the difference between the cost of the original piece of equipment and the estimated cost of replacing that equipment. The replacement factor must include any increases necessary for covering anticipated upgrading as long as the use of the new equipment

is for the same general purpose. It must also include an inflation factor determined by the Nursery System Manager.

3. Building, Maintenance, and Utility Costs attributed to the Nursery System when applicable.

At the beginning of each fiscal year, the WCF Nursery System Manager budgets their fixed costs for the WCF equipment for the full fiscal year.

62.2 - Variable Costs

Variable costs are those costs that vary with the amount of production, increasing as production increases and decreasing as production declines. The variable cost component of the rates recovers the cost of inputs used to produce a product or service. Inputs can include supplies, equipment use, fuel, fertilizer, growing media, and so forth.

Examples of variable costs, direct and indirect expenses include, but are not limited to:

1. Variable Costs.

- a. Regular Maintenance including Greenhouse Maintenance Costs.

- b. Costs related to Seed Testing and Storage.

- c. Deferred Nursery System Maintenance.

(1) These costs are a projection of upcoming major maintenance expenses such as Nursery equipment engine overhauls, tree cooler repairs, and so forth that will occur over the next years based on the prior 5-year average. These costs include equipment maintenance, paint, or any inspections.

(2) These estimates are developed by the Nursery System Manager based on equipment maintenance, logbook entries, and program direction.

- d. Other Miscellaneous Costs that vary with usage.

2. Direct and Indirect Expenses.

- a. Direct Expense. These are expenses, including all expenditures that are charged directly related to the cost of operating the Nursery System. These costs are to include: repairs, maintenance, improvements, utilities, janitorial, and leasing costs. Estimates for supplies, materials, and services purchased must include anticipated expenditures for nursery supplies, chemicals, fertilizer, wrapping materials, pipe fittings, and containers as well as contracts for services such as lifting and packing or other items chargeable to direct labor.

Direct labor estimates must include the cost of labor hours and employee benefits for those engaged in activities directly related to the WCF Program Area. Direct labor

costs must include the proportionate share of the holiday, annual, and sick leave expenses.

b. Indirect Expenses. Indirect expenses are those costs not obviously traceable to any one category of work or those pertaining to all cost centers of an activity. Indirect expenses may not be attributable to production but are associated with and beneficial to an activity and are chargeable to the nursery activity. Examples of indirect expenses are general administration, program management, maintenance (heat, lights, and so forth), or a portion of those expenses not directly identifiable to a cost center or sub-activity.

62.3 - Cash Reserve Analysis

An annual analysis including a 3-year projection of the forecasted income and expenditures must be accomplished for each unit within the Nursery System to identify the operating fund balance reserve amount for each year. An inflation factor must be used as part of the forecasted income and expenses in the cash flow analysis. The methodology and calculations developed by the Nursery System must be reliable, complete, applied consistently, and must be able to withstand audit scrutiny. The methodology is then documented and retained on file for 5 years (see FSH 6209.11, chapter 40, section 42, File Designation and Retention Periods). Excess reserve amount must be accounted for through expanded acquisitions as appropriate, or through rate adjustments (see FSM 6580.3). Excess reserve fund (cash) balance amounts, as determined by the Nursery System Manager and the ASC-B&F, should be dissolved through annual rate adjustment or additional Nursery acquisitions analysis to prevent withdrawal from the WCF Nursery System and sent to the Treasury as miscellaneous receipts.

62.4 - Rate Structure

The Nursery System provides services to both internal Forest Service customers as well as external customers. All costs for each job or transaction must be considered when determining the rates for both internal and external customers. Rates charged for each job must result in cost recovery for the Nursery. As previously mentioned, Nurseries may use any business process improvements to create efficiency in the calculations of these rates.

63 - Nursery System Operations

63.1 - Sale of Nursery Products to Forest Service Regions/Units

The majority of the sales for the Nursery System are based on specific job orders from different Regions/Units and other public agencies. When a Nursery receives an order from a Region/Unit for their services, the Nursery System Manager shall determine the rate to be charged for that specific order based on the analysis of the costs that will be incurred to fulfill that specific order. The delivery of the products (seedlings, and so forth) may not take place until a future date. Thus, the rates to be charged for the order must be based on current estimates of all costs to fulfill the job order. The sales proceeds generated will be recorded in that order at a future date, upon completed fulfillment of the job order to the customer. All costs and sales data related to all jobs for each Nursery must be recorded in the appropriate financial system. On occasion, the

WCF Nursery System, in collaboration with the Region may require full or partial payment in advance of seedling delivery. The related funds must be appropriately recorded as an advance, if received in advance of work performance, or as partial proceeds if received as partial payment of work performed.

For sales of Nursery material that is held in stock by a particular Nursery, rates to be charged must be based on actual costs of the material and associated costs.

Any excess proceeds of sales receipts over the costs of doing business should be added to the Reserve (proceeds/fund balance) for the Nursery. This reserve is to help ensure the Nursery System as sustainable entities and may be used in the future for such necessary expenditures as equipment upgrades, increased expansion, if necessary, and so forth. If the Reserve appears to become excessive, the Nursery System must then adjust the rates accordingly to ensure that excess proceeds and excess reserves are not being generated long term.

63.2 - Sales to and Exchanges with Public Agencies and Other Customers

Appropriate agreements must cover the sale, exchange, and/or disposition of nursery products between Forest Service WCF Nursery System and any other Nursery agents or customers (see FSH 1509.11, Grants and Agreements Handbook). Sales to external customers must reflect current selling prices and must be sold under the same conditions as sales to the Forest Service units as required by Forest Service WCF rules and regulations. Production for other agencies must be on an availability basis as authorized by regulations and must not cause expenditures of Forest Service appropriated funds without full cost recovery.

64 - Donations and/or Expansion of Nursery System

Funds are deposited into a WCF Program Area during the initial start-up of the WCF Program Area and activities. The initial funds should be used to get the program area up and running. After the program area is operational, rates charged to customers should result in the recovery of core costs expended to run the program. Funding to cover costs can come from a variety of sources including: fees, charges, grants, contracts, donations, or payments in exchange for a particular product or service. Funds can be subsequently donated to the WCF Program when the need arises, such as an expansion in the existing production, disaster relief, or increase in capacity requirements. Funds should not be donated to the WCF program area on an ongoing basis as it should be self-sustaining through the rates charged by the program activity.

For any unforeseen event or planned expansion of capacity or production, the reserve should be used initially to finance the need if sufficient reserves are available. Such work must be planned in advance to ensure that there are sufficient reserves in place. If sufficient reserves are not available, funds may be donated to the Nursery System. For any increase in the overall capacity of the Nursery System (such as expanding the operations of the Nursery System), stemming from special requests or projects, donated funds may be used and should be requested in advance of the expansion. All necessary costs related to expansion must be recorded in the WCF program as appropriate to ensure completeness in the Nursery System's accounting and reporting, as well as to help establish rates to begin replenishing the reserve. Please refer to FSM 6586.41 and FSM 2470 for additional guidance.

65 - Disposal, Recycling, and/or Sale of Surplus Nursery System Products

The WCF Nursery System must dispose of excess nursery products in accordance with established property disposal regulations (see FSM 2473.25, Disposal of Surplus Nursery Stock and FSM 2474, Seed. Also, see FSH 6409.31, Disposition of Excess Personal Property and Management Regulations).

The WCF Nursery System must recover any losses caused by the sale of surplus products below cost or by other means of disposal by increases in product selling prices (rates). The proceeds from the sale of surplus or recycled WCF Nursery System products must be credited to the appropriate WCF income account.