

## CHAPTER 0350 - FOREST MANAGEMENT POLICIES

STATE FORESTS	0351
GENERAL	0351.1

California's State forest system has been in existence since 1946 when the first large forest properties were acquired. Sections 4631-4658 of the Public Resources Code provide the authority for acquisition, administration, and operation of State forests by the Department. Most of these statutes were enacted in 1945 following recommendations of the Forestry Study Committee established by the Legislature in 1943. There are now seven State forests totaling 68,654 acres as shown below:

### STATE FORESTS IN CALIFORNIA

State Forest	County	Area (Acres)	Date Acquired
Jackson	Mendocino	50,505	1947-51, 1968
Latour	Shasta	9,013	1946
Mountain Home	Tulare	4,562	1946
Boggs Mountain	Lake	3,454	1949, 1972
Las Posadas	Napa	796	1929 (gift)
Mount Zion	Amador	164	1932 (gift)
Ellen Pickett	Trinity		1939 (gift)

Jackson, Latour, Mountain Home, and Boggs Mountain State Forests are commercial timberland areas managed by professional foresters who conduct programs in timber management, recreation, demonstration, and investigation in conformance with detailed management plans. Las Posadas, Mount Zion, and Ellen Pickett State Forests were acquired as gifts to the State and are relatively noncommercial in nature. These smaller forests are used primarily for administrative and recreational purposes and are managed by local Department of Forestry personnel incidental to other responsibilities. Deed restrictions preclude some uses on these forests.

A large acreage of potentially productive timberland in California is not producing a satisfactory growth of young timber. To attain proper management of private timberlands in California, there is a need to investigate, develop, and demonstrate new and improved forest management methods to timberland owners and the public. The State forests serve this purpose while contributing to the economic stability of local communities by providing high yields of forest products which sustain local employment and tax bases. Outdoor recreation is an important public benefit of the state forests.

The significance of the State forest program is demonstrating improved practices will increase as the demand for forest products increases and as public interest in forest management practices intensifies. Demonstrations of the compatibility and conflicts involved in multiple use of forest land are essential as population and development pressures increase on California's forest lands.

The State forests require a stable land base to facilitate long range planning necessary in forest land management. There is an urgent need to preserve the integrity of the existing State forests to assure their continued management according to legislative intent contained in PRC Section 4631. Reduction of private and public inholdings through purchase or exchange is needed to allow more efficient management of the existing State forests. Additional small demonstration forests (under 2,000 acres) adapted to meeting local requirements for investigation, demonstration, and education are needed in those counties where management of small timber ownerships is inadequate and no demonstration forests exist. There may be lands already in State ownership that could partially meet this need.

In consideration of the above facts, the Board of Forestry has adopted the following policies to guide the Department of Forestry in administering the State forest program and managing the State forests.

#### PROGRAM PURPOSE AND LAND USE PRIORITIES

0351.2

The primary purpose of the State forest program is to conduct innovative demonstrations, experiments, and education in forest management. All State forests land uses should serve this purpose in some way. In addition:

- A. Timber production will be the primary land use on Jackson, Latour, and Boggs Mountain State Forests. Timber production will be subordinate to recreation on Mountain Home State Forest;
- B. Recreation is recognized as a secondary but compatible land use on Jackson, Latour, and Boggs Mountain State Forests. Recreation is a primary use on Mountain Home State Forest as prescribed by Section 4658, Public Resources Code:
- C. State forest lands may be used for Department administrative sites when such use will benefit State forest programs or protection;
- D. Special uses primarily benefiting non-forestry and/or private interests will have low priority. Such uses that conflict with State forest objectives are discouraged.

#### DEMONSTRATIONS AND EXPERIMENTS

0351.3

The Board, consistent with PRC Section 4631, recognizes and reaffirms that the primary purpose of State forests is to conduct demonstrations, investigations, and education in forest management. The Board wishes to emphasize and expand demonstrational, experimental, and educational activities on the State forests. Accordingly, in the operation of State forests, the Department will:

- A. Conduct a balanced program of demonstrations and investigations in silviculture, mensuration, logging methods, economics, hydrology, protection, and recreation; directed to the needs of the general public, small forest landowners, timber operators and the timber industry.
- B. Continue and develop procedures to assure dissemination of information obtained on State forests to forest landowners, (especially small owners), timber operators, and the general public.

C. Integrate the Department's Service Forestry Program with State forest demonstration activities to more effectively reach small forest landowners and the general public.

D. Conduct periodic field tours to exhibit State forest activities and accomplishments to forest industry, small forest landowners, relevant public agencies, and the general public. Field tours should be initiated by the Department and conducted at such times and places to encourage general public attendance.

E. Seek special funding as needed from the Legislature to support specific research projects on State forests.

F. Consult with and solicit the cooperation of the State universities and colleges, U.S. Forest Service, and other public and private agencies in conducting studies requiring special knowledge. Enter into cooperative agreements with other public and private agencies for investigating forest management problems of mutual interest. It is particularly of mutual benefit to make the State forests available to educational institutions, and other agencies for research projects.

G. Cooperate with the Department of Parks and Recreation in establishing forest management demonstration areas compatible with recreation for educational purposes adjacent to the Mendocino woodlands Outdoor Center on Jackson State Forest.

## TIMBER MANAGEMENT

0351.4

Purposes and policies for timber management on state forests are established in PRC Sections 4631 and 4651. The Board has further established the following policies pertaining to management and harvest of timber on State forests:

A. The Department will conduct regular periodic timber sales on Jackson, Latour, Boggs Mountain, and Mountain Home State Forests. Harvesting may be deferred in accordance with an approved management plan;

B. A rotation age, cutting cycle, and an allowable annual cut will be established for each State forest from which timber is harvested. Timber harvesting schedules should be projected at least five years into the future;

C. Allowable cut levels must be derived from pertinent current inventory and growth data;

D. State forest timberlands will be managed on the sustained yield principle, defined as management which will achieve and maintain continuous timber production consistent with environmental constraints;

e. State forest timber stands should be harvested on the basis of maximizing mean annual increment of high quality forest products. This should not preclude intermediate cuts designed to increase total yield and reduce losses from mortality;

F. Timber production and harvesting should provide for coordination with other State forest uses. Silvicultural practices should be compatible with recreation,

soil, water, wildlife, and fishery values, and aesthetic enjoyment;

G. Economically and ecologically justifiable intensified forest management practices to increase total fiber production and timber quality will be pursued on the State forests. These practices will be designed and carried out for maximum applicability (or demonstration values) to private lands. Financing to conduct such intensive silvicultural practices should be actively sought by the Department;

H. Timber sales should have demonstrational value and include experimental and educational aspects whenever possible.

## RECREATION ON STATE FORESTS

0351.5

A. Recreation is recognized as a secondary, but usually compatible use, on Jackson, Latour, and Boggs Mountain State Forests. Recreation is a primary use on Mountain Home State Forest as prescribed by section 4658, Public Resources Code.

B. The recreation program on State forests will make camping and day use facilities available to the general public, offer a degree of control and protection to the forests, and demonstrate that recreational use and timber management can be compatible land uses.

C. Campgrounds, picnic areas, and trails will be developed on State forests, as funds become available, but only consistent with the recreational carrying capacity as determined in the management plan.

D. Recreation improvements will generally be rustic in character with sanitary facilities and water sources which meet public healthy requirements. Special attention should be given to maintaining safe and sanitary conditions in all recreation sites utilized by the public.

E. Recreation use will be integrated with timber management activities to demonstrate how these uses can be compatible. The presence of recreationists on the State forests presents a unique opportunity to explain timber management to the general public.

F. The State forests will remain open for public hunting and fishing in accordance with State Fish and Game regulations except for specified closures required for public safety and forest protection as authorized by law.

## SPECIAL USES OF STATE FORESTS (Adopted by the Board, August 8, 2012)

0351.6

Special uses of State forests will be permitted only when there is a clear benefit to the citizens of the State and when such uses do not conflict with primary (uses) programs of timber management, demonstration, research, and recreation. Such concessions must be consistent with this policy and receive written permission of the Forest Manger. The Forest Manger may require mitigations to any concession to ameliorate potential impacts on the forest or its operations.

A. Use of State forests for mining, grazing, and commercial concessions is discouraged. Concessions on State Forestlands means:

- a. The privilege of maintaining a subsidiary business within the forest, or
- b. The space allotted for such a business, or
- c. The business itself.

Examples of concessions that are discouraged:

1. Those that require permanent structures.
2. Those that are commercial in nature, i.e. the operation is tied primarily to commercial revenue generation (e.g., vendors that sell souvenirs or food) instead of a symbiotic relationship with one of the mandated uses of the State Forests.
3. Mining
4. Grazing, except where such use has been traditionally recognized on the property, or an there is an existing agreement, or where necessary for research or management (e.g., herbivory to reduce hazardous fuels)
5. Those that have no clear connection to the role of the forest in timber management, demonstration, research, and recreation.

B. Although the State Lands commission has primary jurisdiction over geothermal resources on state forests, surface operations of geothermal developers will be strictly controlled by the department in accordance with regulations adopted by the Board contained in 14 CAC Section 1500-1503.

#### GRANTING TEMPORARY PERMITS FOR PASSAGE

0351.7

It is desirable to grant temporary permits for passage across State forests to forest products operators or other parties having need of them in the course of their operations where such permits do not interfere with the primary uses of State forests by the State. Applications for temporary permits for passage may be made to the Director who will be guided by the following principles in submitting applications to the Director of General services for approval.

- A. Temporary permits for passage will be granted on a reciprocal basis where practicable.
- B. The State will have free use of all lands and routes over which permits for passage have been granted.
- C. The State will reserve the right to cross, recross, and parallel any such lands or routes with its own roads or utilities.
- D. Temporary permits for passage will be limited to a minimum economical width, but in no case shall exceed 60 feet except for needed cuts and fills.
- E. The grantee of any temporary permits for passage will pay the State the current market value of timber necessarily cut or damaged in clearing and construction on State lands, provided that the price and volume will be determined by the Director, and such timber when paid for will belong to the operator.

F. Temporary permits for passage will be of such duration as to meet the reasonable needs of the grantee. Three years' non-use of any permit for passage for the purpose granted will constitute an abandonment forfeiture thereof unless the period of non-use is otherwise agreed upon.

G. The State will be reimbursed for any damage caused to State property in the construction and/or maintenance of such, provided that the grantee will hold the State harmless from any and all liability arising from the construction, maintenance and/or use of areas covered by such permits for passage.

H. Where it appears that benefit will result to the State, any charge for such permit for passage may be reduced accordingly.

I. All slash and snags on the area covered by a permit for passage will be disposed of by the grantee. The grantee will have the same responsibility for fire protection on any such area as is required by the Board for fire protection on a timber operating area.

#### PERMANENT EASEMENTS ACROSS STATE FOREST LANDS

0351.8

Permanent easements across State forest lands are sometimes necessary to allow adjacent owners access, use and development of their property. Granting of permanent easements across State forest lands can influence the development of subdivision rural residential complexes which are not in harmony with State forest management activities.

The Board does not support or encourage residential development within State forest boundaries or on lands contiguous with State forest boundaries. The following guidelines will be followed by the Director in considering request for permanent easements:

A. Requests for permanent easements and widening of existing easements will be discouraged, but may be considered when no other routing through non-State forest land is physically possible or if such other routing presents substantial and unreasonable difficulties or environmental damage;

B. Requests for permanent easements will be submitted by the applicant in complete and understandable form with appropriate engineering data and plats as may be required by the Director. The applicant will prepare any required environmental documents and bear all administrative costs associated with processing his easement agreement;

C. Requests for permanent easements will be accompanied by a non-refundable deposit to cover administrative and engineering costs involved in studying the request. The deposit will be applied toward any fees charged if an easement agreement is consummated. This non-refundable deposit will be forfeited by the applicant if for any reason an easement agreement is not granted by the State. All fees may be waived where reciprocity is a consideration;

D. In those special cases where permanent easements are necessary for subdivision rural residential development, the easement will be accepted by the county as part of the public road system and developed to public road system standards;

E. To prevent proliferation of roads and easements, parcels with multi-ownerships will be required to share a common easement across State forest lands if at all feasible. This may involve substantial increases in planning, negotiation, engineering and cost to the original applicant;

F. To maintain control of easement use which could lead to subdivision rural residential development, an effort will be made to formalize by agreement, any prescriptive rights to State forest roads which adjacent owners may have acquired through uncontested use;

G. Permanent easement requests will be considered for only the minimum width and minimum development needed for the requested use;

H. A clause will be included in all permanent easement agreements guaranteeing the State all forest management options in areas adjoining privately developed lands without interference from the grantee;

I The Director will record all permanent easement agreements with the local county.

#### STATE FOREST LAND ACQUISITION POLICY

0351.9

A. The State forests should remain intact as management units without further diversion of productive area to non-forestry purposes. There should be no future transfers of commercial timberland from the state forests except where such transfers meet the program objectives of the State forests.

B. Private and public inholdings within the State forests should be reduced through acquisition or exchange. Irregular property lines should be rectified by acquisition or exchange, where desirable, to facilitate efficient management and to avoid conflicting land uses on adjacent areas. Inholdings and irregular property lines present an especially acute problem on Mountain Home State Forest which should be resolved as soon as possible. Certain boundary line adjustments would also be desirable on Jackson and Latour State Forests.

C. Public Resources Code Section 4631(c) permits acquisition of "Demonstration forests of 2,000 acres or less adapted to furnish local needs of investigation, demonstration, and education in those timber counties where the ownership pattern is such that management of small areas is an important problem." Existing Department administrative sites involving significant timberland areas should be analyzed to determine if they could be utilized as demonstration state forests. Las Posadas, Mount Zion, and Ellen Pickett State Forests should be studied to determine if they contribute to the State forest program, or if they should be sold or exchanged for areas more suitable for State forest purposes.

#### STATE FOREST MANAGEMENT PLANS

0351.10

Management Plans for Boggs Mountain, Jackson, Latour, Mountain Home and Soquel Demonstration State Forests shall be prepared by the Department, with appropriate public review, for approval by the Board. The Department shall present to the Board a thorough review of each existing plan at least every five years.

After each review, the Board may direct the Department either to continue management under the existing plan, to prepare amendments to the plan, or to prepare a new plan for public review and Board approval. The Department shall submit the requested amendments or plan to the Board within one year after each request. The Department shall continue management under existing plans with appropriate consideration for changes in law or regulation, until amendments or new plans are approved by the Board. (Adopted by the Board July 12, 2001, San Bernardino, California.)

## FOREST PEST MANAGEMENT POLICY 0352

### GENERAL

0352.1

1. The State Board of Forestry finds that forest insects, diseases, and other pests have damaged and destroyed major timber, watershed, recreational, and other public values on California forests, hardwood range lands, and urban forests, and that the threat of future damage from such forest pests is a continuing and potentially serious problem. Accordingly, the following policy is provided for the guidance of the Director of the Department of Forestry and fire Protection and information for concerned and interested agencies and persons.
2. State laws authorizing the control of forest pests, including Public Resources Code Sections 4712-4718, 4799.08-4799.12, and the Federal Forest Pest Control Act (Public Law 110), allows broad administrative discretion in the use of public funds to detect and control forest pests on lands of all ownerships.
3. Any control measure, including the use of pesticides, biological control, fire, or mechanical means, must be ecologically and environmentally sound. Measures must also be justified in terms of practicality, effectiveness, resource values threatened and costs versus benefits. The objective of forest pest management is to keep the pest's impact at acceptable endemic levels. Eradication is not the usual objective, except for introduced pests.
4. It is the policy of the Board that the public be kept advised of the status of forest pests and any control operations involving Department participation. The Board recognizes public concern over toxicity and other health effects of some pest control chemicals. It shall be the policy of the department to minimize the risk of exposure of the public to toxic chemicals. Implementation of this policy will be accomplished by encouraging the use of an Integrated Pest Management (IPM) approach in developing strategies to combat forest pest problems. Proposed uses of toxic agents will be evaluated taking into account the characteristics of the effective chemicals, quantity to be used, method of application and frequency of application to ensure that the alternative posing the least risk of exposure is selected.
5. The Director should employ and promote the principles of sound forest resource management as a means of preventing or reducing damage by forest pests. A basic requirement to prevent or minimize losses due to forest pests is to maintain forest stands in a healthy and vigorous condition.
6. The Director should develop programs to advise and assist private forest owners within the State on the manipulation of forest composition and stand structure in order to minimize the risk of unacceptable losses due to forest pests. Integrated pest management should be an integral part of general silvicultural prescriptions, rules and regulations, and may include, but is not limited to, guidance on the appropriate kinds, intensity, and timing of practices such as selection of genetically pest resistant trees,

harvesting, slash disposal, site preparation, regeneration, stocking control, nutrition, the use of pesticides, and biological, and indirect methods of control.

7. It is the policy of the Board to obtain expeditious control of potentially devastating forest insect and disease infestations, and to permit flexibility to meet the many variables of control operations according to principles and guidelines set forth herein.
8. The Director is authorized to cooperate and maintain a working relationship with other State agencies, federal, county, municipal governments, private forest pestconsultants and private timber landowners in carrying out pest control under provisions of State law and in accordance with the general principles stated herein.

Whenever chemicals are used in control of insects and diseases, the Director shall comply with all appropriate rules and regulations of the Departments of Food and Agriculture, Health Services, the Water Resources Control Board, the County Agricultural Commissioners, and other State, Federal, or local agencies.

#### FOREST PEST MANAGEMENT RESPONSIBILITIES

0352.2

1. The Department should assume the lead role in native forest insect and disease matters on non-federal forest lands in California as authorized in the public Resources Code.
2. Introduced forest pests may present a serious threat to forest resources. In the event of introduction of a new forest pest, the Director shall cooperate with other responsible Federal and State agencies, such as the U.S. Forest Service, the Animal and Plant Health Inspection Service (APHIS), and the California Department of Food and Agriculture, to secure prompt effective action to prevent the spread of and damage by the new pest. In the absence of action by other agencies, the Director may employ eradication or control measures approved by the Board.
3. It shall not be the responsibility of public agencies to take direct action against native forest pests whose effects are confined to local areas encompassing one or a few properties except as provided in (4) below.
4. It shall be a private and local community responsibility to take direct action against forest pests on several adjacent private properties when there are no intermingled or threatened State or Federally owned forest lands. Other than acting as a technical advisor, State assistance can be justified only when the infestation is of such a threat to adjacent commercial forest lands, and of such urgency and size, that the local owners cannot adequately or expeditiously control the pest.
5. It shall be the responsibility of local agencies and individual landowners to control pests of landscape and ornamental trees except in case such as Dutch Elm Disease where the Legislature has assigned that responsibility to the Department (PRC 4799.08(e) and 4799.10(c)). In other cases, the Department shall exercise its authority (PRC 4799.11(a)(4)) to give advice on pests and hazards of urban trees where practicable.
6. Any State expenditure for forest pest control projects shall be justified by showing that effective, practical, economical, and environmentally sound measures are available, as determined by the Director of the Department.
7. The Director shall offset the cost of direct control projects by seeking contributed

funds or labor from affected private forest landowners and any appropriate agency of government. When private landowners or governmental agencies have the ability or authority to expend monies or services in control projects, it is the policy of the Board that the Department's share should generally be limited to 50 percent of the cost of control, excluding regular salaries and wages of permanent Department employees.

8. If infestations are of such size or character as to be beyond the ability of any forest land owner or group of private forest land owners to control as determined by the Director, the Department may finance up to 100 percent of the cost of such forest pest control projects on private lands. Such funding must be in the public interest. The Director shall seek needed funding from the Department of Finance (DOF) for such projects. In the event DF does not authorize full funding, the Director shall proceed with available funds to achieve maximum control.
9. Federal pest control funds should be sought where available and appropriate in order to minimize the cost of forest pest control projects by the State and others where the cost of an individual project exceeds \$5,000.
10. In prevention, stabilization or suppression actions, post-treatment evaluations shall be conducted to measure the efficacy of the prescribed treatments.
11. Control of forest pests by indirect methods, such as by thinning, sanitation harvesting and salvage, should be utilized where appropriate to reduce the direct costs of stabilization or suppression of pest populations and to insure full utilization of the timber resource.
12. In determining risk, the Department shall evaluate the available chemicals and shall use the least toxic and most economical chemical(s) available that will be effective in carrying out the desired results. Biological control methods should be used if proven effective and economical.

#### PUBLIC AWARENESS AND INFORMATION

0352.3

1. The Director shall develop a public involvement action plan for control projects. Included in this plan should be sections dealing with public information (including media contacts and public involvement); project organization; treatment; delimitation procedures; and budgets.
2. The action plan should include a section on risk assessment and where appropriate, how the decision to take action or not to take action is determined (e.g., cost of control project versus current and future losses if "no action" alternative is selected).
3. The Director in cooperation with the California Department of Food and Agriculture, Cooperative Extension, U.S. Forest service, California forest Pest Council, and other agencies, shall ensure that the public is kept informed on all forest pest control matters through news releases, articles, other publications, press tours, and the like.
4. The Department is encouraged to develop a Forest Pest Control Note series designed to impart continuing information on forest pests to the cooperating agencies, and the general public.

#### PEST SURVEYS, EVALUATIONS, AND INVENTORIES

0352.4

1. The Director shall develop and implement a program for monitoring forest pests and

detecting damage on non-federal forest lands.

2. The program should include pest detection surveys, evaluations based on biological, environmental, and economic considerations, recommendations and inventories of kinds and amount of damage.
3. The Director shall encourage the widespread use of the Forest Pest Detection Report to assist in determining the extent of damaging forest pest problems or situations.

## PRINCIPLES

0352.5

1. The Board of Forestry recognizes the California Forest Pest Council as the primary source of advice on matters of forest pest management and forest pest research needs.
2. The Director shall encourage the use of an Integrated Pest Management (IPM) approach in developing strategies to combat forest pest problems.
3. The Director shall establish an agency liaison working group comprised of representatives of those agencies with statutory authority for control of forest pests in California (California Department of Food and Agriculture, the U.S. Forest Service, and the California Department of Forestry and Fire Protection). This committee should meet on a regular basis to discuss forest pest matters. The committee should address long-range planning needs, evaluation of potential control projects, and focusing research goals and public information efforts. The Department's representative should serve as chairman of this group. Copies of the meeting notes should be sent to the Board and to the California Forest Pest Council to keep them apprise.
4. The Director will determine the specific information needed to guide forest owners toward programs to minimize present or potential impacts of forest pests and develop and implement programs to obtain such information. Such information may include, but is not limited to, pest damage inventories and survey reports; studies of differences in genotype, site, environment, or stand condition which influence susceptibility or risk of damage caused by specific pests or pest complexes; and studies of differences in the nature and timing of specific silvicultural treatments and their impact on forest pests.
5. The Director shall continuously evaluate the staffing needs of the Department in forest pest control matters and shall seek approval from the Department of Finance to increase staff when it is shown that additional personnel are needed.
6. The Director should periodically report to the Board on staffing needs and where Board support is needed to obtain additional staff.
7. The Department shall maintain a sufficient number of personnel holding a "Qualified Applicator Certificate" to enable the Department to carry out required control projects. Departmental staff are encouraged to become Certified Pest Control Advisors and to maintain their skills in this area through continuing education courses.
8. The Department shall provide training for its forest advisors and other staff in the principles of forest pest management. The Department is encouraged to provide

such training for those foresters, landowners, and others outside the Department through short courses, field trips, or other means. The Department should work with Cooperative Extension, the Forest Service, the California Forest Pest Council, and others in arranging for such training.

## FOREST PEST RESEARCH

0352.6

1. The Board supports an aggressive program for research on integrated forest pest management to improve the effectiveness of efforts for prevention, detection, evaluation, suppression or stabilization of forest pests in the State; and encourage collection and dissemination of information on pest incidence, biology, management, and control through the Department, the California Forest Pest Council, the Cooperative Extension, the several research agencies, and other appropriate entities.
2. It is the policy of the Board, directly and through its Committee on Research, with input from the California Forest Pest Council, in the discharge of its responsibilities for research and information programs, to periodically identify forest pest related research needs, and these needs should be communicated to research organizations.
3. The Director shall cooperate with the University of California, the California State University system, the Pacific Southwest Forest and Range Experiment Station, private industry, forest landowners, and others in seeking an adequate level of funding for forest pest research in California. The Department shall solicit and consider the recommendations of the California Forest Pest Council in setting research priorities.

## DEFINITION OF TERMS

0352.7

1. Control - Includes acts of prevention, detection, evaluation, suppression, or stabilization of pests or pest damage.
2. Director - The Director of the Department of Forestry and Fire Protection.
3. Endemic - The normal population level of a potentially destructive native species; in contrast to epidemic.
4. Forest - A plant community, predominantly of trees and other woody vegetation growing more or less closely together and managed for a variety of resources, including timber, soil and watershed, range, wildlife, recreation values, fuelwood, and aesthetics.
5. Integrated Pest Management (IPM) - The maintenance of destructive agents, including insects at tolerable levels by the planned use of a variety of preventive, suppressive, or regulatory tactics or strategies that are ecologically and economically efficient and socially acceptable. It is implicit that the actions taken are fully integrated into the total resource management process in both planning and operation.
6. Introduced Pests - Pests that have been introduced into California after the first Europeans arrived. These pests are generally without adequate biological controls and cause serious disruptions to the native ecosystems.

7. Native Pests - Pests that are indigenous and are part of the native ecosystems.
8. Pests - Organisms that diminish the value of resources in which man is interested. For purposes of this policy, they are biological agents such as insects, diseases, animals (vertebrates), and plant weevil species; either singly or in combination, which occur in sufficient numbers, population, or extent so as to cause, or potentially cause, significant or unacceptable losses to forest resources values.

Adopted by the Board on July 8, 1987, in Sonoma, California.

## NURSERIES

0353

### GENERAL

0353.1

Pursuant to its responsibility to determine, establish, and maintain adequate forest policies, the Board of Forestry (Board) finds that:

1. An adequate, reliable, and continuous supply of forest tree seed, tree seedlings and other associated plant materials must be assured if the forest values of declared public interest are to be maintained.
2. The public policies as demonstrated in the Forest Practice Act, the California Forest Improvement Program and the public demand for vegetative material to control erosion and provide wildlife habitat and enhance other forest values foster a substantial demand for seedlings of widely varying type, species and seed source.
3. California has a highly varied topography, geology and climate. The combinations of these factors result in more than 80 separate zones of unique ecological characteristics. Of these, only about 45-50 zones are found on commercial forest land. Most of the annual statewide seedling production is utilized on a limited number of these zones. However, there exists a demand for seedlings in the remaining zones. When proper seed is not available, seedlings from other zones of different climatic adaptation may be planted and poor quality trees could result. With this in mind, the State must produce many diverse lots of seedlings covering these zones. Even though the seedling production costs are high for small lots, it is in the State's interest to avoid planting offsite seedlings that are not adapted to a given site.
4. Site specific and viable seed is a vital link in the continued supply of tree seedlings. Such seed has not always been available. Good seed crops are the exception rather than the rule and often such crops occur at many-year intervals. While adequate seed crops are often borne every five to seven years, some important tree species and seed zones have not had collectable seed crops for up to 20 years. Although some seed is produced every year, not all species and seed zones produce collectable seed on the same cycle. In view of such periodicity and variability of seed crops, the State must maintain a highly reliable and sizable seed bank, along with an appropriate processing and testing facility. The seed bank will insure a continuing supply of seed for all appropriate species and zones during the years between collectable crops. California forests are subjected to the sudden and catastrophic effects of wildfire and of insects and disease. When such events do occur, the demand for seedlings of specific species and seed zones will increase dramatically for several years. The seed bank will, in addition to meeting the above periodicity and genetic reserve concerns, also insure a seed supply to meet unexpected needs of catastrophic events or the unforeseen opportunities.
5. The production and utilization of seedlings involves substantial uncertainties for the producer, the consumer, and the public. Nursery stock may take more than one year to grow to the optimum size and cannot be held past this optimum

- age. Consumers cannot always predict their need, but still must have adequate stock on a timely basis in order to take advantage of economic and climatic opportunities. Finally, if plantings are unsuccessful, long-term timber production and wildland revegetation needs cannot be met.
6. Increasingly the public is concerned over the use of toxic chemicals and their effect on the environment and on humans. The Board therefore supports study of alternatives to the use of toxic chemicals in nursery seedling production. Such studies should provide for estimates of costs and the effectiveness of such alternatives. The Board believes that higher per seedling costs where it occurs may be appropriately charged to the State. However the Department should provide for rapid technology transfer as any alternatives become available.
  7. The Board recognizes that speculative stock is often priced 40 percent or more above equivalent contract material in response to the risk and the uncertainty of sale and that such differential pricing must be considered in nursery policy.
  8. Under Public Resources Code Section 4681-4695, the California Department of Forestry and Fire Protection (Department) has the responsibility for maintaining a nursery system; collecting, processing and storing seed; for protecting the genetic integrity and diversity of forest trees and plants species, giving emphasis to native species threatened with extinction; and providing technical and reforestation assistance to landowners. The Board recognizes that there are private producers of seedlings whose capabilities, interests and efforts should not be disadvantaged by the Department's system.

In light of all the findings, it is the policy of the Board that the Department shall maintain a nursery program pursuant to Public Resources Code Section 4681, and that this program shall reflect the following policies:

## PRODUCTION

353.2

1. The Department shall acquire and maintain a seed bank as insurance against poor seed crop years and to ensure the restoration of native trees and plants species threatened with extinction. The seed bank will contain a sufficient supply of viable seed, to meet the needs of the Department's nursery system. When in excess of the Department's needs, seed may be sold to private nurseries, and landowners unable to be supplied by private seed dealers. The factors to be considered when determining the quantity of seed to be stored shall include frequency of adequate seed crops, anticipated annual demand, availability of seed from other sources, potential for emergency reforestation needs, and seed storage capacity. The seed bank reserves will be sufficiently diverse to provide a depository for protecting genetic diversity of tree and plant species giving emphasis to native species threatened with extinction where practicable. Where feasible, the Department may acquire cones and seed from private persons or organizations. Cones or seed may be purchased from, or exchanged with, governmental agencies. It is important to insure the continued availability of quality, source identified seed for the Department and private landowners.
2. The Department shall maintain a facility for cone processing, seed extraction, seed testing and storage, capable of producing and adequate quantity of high quality seed on a timely basis. Processing and testing services may be made available to persons or organizations on a contract or percentage share basis when adequate facilities are not available elsewhere in the State.
3. The Department shall maintain a nursery system that can produce a broad spectrum of seedlings, both container and bare root, for

- the purposes:
- a. Public planting or reforestation of public lands, emphasizing watershed land damaged by fire, flood, insects, disease, or other natural causes.
  - b. Restoration of native trees and plant species threatened with extinction.
  - c. Soil erosion control, watershed protection, or farm windbreaks.
  - d. The production of forest products and farm woodlot products on private lands.
4. The Department shall plan annual seedling production consistent with the premise that this production is a back-up to anticipated private output for high demand species. The Department shall continue to serve as the basic source for low demand species, for unique species and for those species threatened with extinction. It is recognized that natural events may cause unexpected shortfalls in production or rapid increases in seedling demands. The Department plan will address the need to produce seedlings to mitigate these emergencies.
  5. The Department shall adjust its production when private nurseries demonstrate the capability and willingness to meet landowner needs for high quality planting stock.
  6. The Department shall prepare a report to the Board at no more than five-years intervals from the approval date of the Board's most recent nursery policy statement (March 6, 1991). This report shall contain the Department's evaluation of the statewide public and private seed and seedling production. A recommendation of how the Department proposes to adjust its production in the light of current seedling markets and in response to the demonstrated capabilities of private nurseries will be included.

## PRICING

353.3

The Nursery System Plant Stock Pricing Policy establishes a process for annual determination of the price of plant stock to be sold from the nurseries. The potential for competition with private enterprises will be minimized consistent with providing for essential State needs outlined in Article 2. When the Department follows this policy, annual approval of the price schedule will no longer be needed.

1. Regular Plant Stock Prices  
Regular plant stock are those tree species for sale during the current year. The price for bareroot and container stock shall be set at not less than the median price for similar species and stock types established from a sample of at least five (if available) private California nurseries.
2. Advance Reservation Stock Prices  
The Department may accept advance reservations for stock to be sold during the following year. The price of reservation stock will be based on a minimum reservation of 500 bareroot or 100 container plants, per species and a discount off the regular stock prices as follows;
  - For bareroot stock the discount shall not exceed 10% for quantities of 500 or 1000 plants, and shall not exceed 20% for orders over 1000 plants.
  - For container stock the discount shall not exceed 5%.
3. Contract Stock Prices  
The Department may accept contracts for the growing of stock. Contracts shall be for a minimum of 5000 bareroot or 500 container plants, per

species. The price of contract stock will be based on a discount from the regular stock prices as follows:

- For bareroot stock the discount shall not exceed 15% for orders of 5000 plants and no more than 25% for larger orders.
  - For container stock the discount shall not exceed 15%.
4. Specialized Restoration/Revegetation Species and Stock Types  
The price of plant material will be determined explicitly for each special project. The following factors will be used to determine prices for specialized contract stock: container cost, potting mix cost, a square footage charge for green house or growing bed space, a cultural practices charge, a small lot charge for less than 100 plants, and a 30% overhead charge. An additional per plant charge will be assessed for plants staying more than 1 month beyond the agreed contract date. The charge will be based on container size and level of cultural practices required.

(Section 353.3 modified November 4, 1998)

## MARKETING

353.4

1. The Department may grow seedlings for private persons on a contract basis. However, these persons shall be advised that the State cost is likely higher, by policy, than such service by private producers.
2. General public sale of nursery stock will begin no earlier than October first of each year to allow all buyers an equal opportunity to purchase. Individual sales of speculative material may be limited so that one large order does not exhaust the supply of one particular item. Contracts, reservations and delivery commitments may be made by the nursery sooner than October first for State and Federal Incentive projects, planting and reforestation projects which require a planning span of greater than one year.

(Section 353.4 modified November 4, 1998)

## OTHER

353.5

1. The Department shall develop an information collection and dissemination program. It may include such items as cone crop evaluations; projection of seed and seedling demands; sources, types and quantities of available seed and seedlings; reports of studies in forestry nursery practice and discussions of problems being experienced by both consumers and producers. To provide such dissemination, the Department may utilize a regular and timely newsletter or similar system. Also, the Department shall investigate the opportunity for cooperative agreements with other governmental agencies with similar information disseminating responsibilities. The Department shall continue to provide technical information to seedling consumers through its Forest Advisors, including the advantages of contracting with private growers for their seedling needs.
2. The Department shall promote and support a statewide program in genetic tree improvement as a means of increasing the quality and quantity of available commercial timber in the future and to help sustain endangered species.
3. The Department shall provide for demonstration, study and information transfer in the broad area of nursery practices and reforestation. These activities may include investigations of cone crop forecasting and periodicity, cone and seed

maturity, new methods of cone processing, seed testing and storage, nursery cultural and seedlings handling practices, and reforestation techniques. Also, these activities may include the use of workshops, multimedia program development and organization and coordination of Technical Nursery Cooperative.

4. In the event that CDF proposes to expand the nursery program, expansion proposals will be reviewed with the Board of Forestry before implementation. (Section 353.5 modified November 4, 1998)  
(Policy adopted March 6, 1991)

VEGETATION MANAGEMENT PROGRAM 0356

FINDINGS 0356.1

### INTRODUCTION

Historically, great changes have taken place in California's plant communities. Among the many causes of these changes, three stand out.

First, major vegetation changes were caused by the introduction of domestic livestock grazing and concurrently the introduction of Mediterranean annual grass and forbs.

Another is the significant series of changes that occurred in the early 1930's with the beginning development of a State fire protection system. In 1932 there was a serious attempt made by the Board of Forestry to determine a sound fiscal system for handling the State's money resources and fire protection responsibility. A system also was established of hiring and stationing crews of firefighters throughout the State during the eight to ten month fire season. And, in 1934, a Master Fire Plan study was initiated.

Wildfires were becoming routinely suppressed at all times and the practices of intentional burning by ranchers was discouraged by prosecution and billing for suppression costs of escaped fires. These policies were justified by the need to protect watersheds from wildfire, and from the floods and debris flows that followed them.

A more recent change has been extensive and intensive urbanization. The development occurring on much of coastal, foothill, and prime agricultural land has resulted in enormous vegetative changes and places significant restrictions on land management options.

SUMMARY OF FINDINGS 0356.2

#### Overview:

- A. California's growing population is exerting tremendous pressure on the State's natural resources. People are using more products and other benefits from the land. They are also demanding more space for living, working, and recreation.
- B. Despite being the nation's most populous state, California retains extensive areas of rural and undeveloped forest and rangelands. Eighty-five million of the state's 101 million acres are considered forest and rangeland, including desert, mountain, wilderness, and other non-urban, non-agricultural lands.
- C. The primary economic outputs derived from forests and rangelands are timber, firewood, forage, recreation, and water.
- D. California's diverse forest and range cover types provide habitat for a large and varied array of wildlife species. Altogether nearly 650 different wildlife species are permanent residents of or regular migrants of these lands. Vegetation age, density, and size class, as well as the composition and distribution of plant species, affect which wildlife species occur in an area. The presence of special habitat elements such as snags, downed logs, or water are required to support many species.
- E. Both wildlife and livestock graze billions of pounds of forage every year. Much of the forage that is usable is never actually grazed due to constraints, such as rough

- topography, lack of water, and seasonal changes in forage quality and palatability.
- F. Currently, about 44 million acres are grazed, producing 14 million AUMs (Animal Unit Months). Ninety percent of these AUMs comes from private lands. Areas too steep or rocky, or soils too poor for farming may still produce large quantities of grass and other vegetation. Cows, sheep, and goats are self-propelled harvesters. They convert this inedible vegetation into food for humans, as well as to wool and leather. The range livestock industry is a major source of both high protein and land management expertise.
  - G. California's Mediterranean type climate makes wildfire a major threat to the state's forest and rangeland.
  - H. Fires from lightning and those set by Indians, prior to European settlement, had pronounced structural impact on the vegetation. The evidence of these impacts is clear from early-day descriptions and pictures of the vegetation and is reinforced by recent research contrasting the changes that occur in places where fires are allowed to burn, either naturally or under control, with the changes at sites where fires are excluded. (Biswell 1989)
  - I. Increased development and use of the wildlands, the reduction of grazing, and the effectiveness of fire suppression activities have in many areas resulted in a buildup in forest and rangeland fuels. In this situation, given extreme fire weather, the threat of uncontrollable wildfire is great.
  - J. Fire protection responsibilities, including the Vegetation Management Program, are performed by some counties under contract to the State. These counties are known as Contract Counties.

#### VEGETATION MANAGEMENT TECHNIQUES

0356.3

- A-1 Vegetation management is the planned manipulation of vegetation and/or growing conditions affecting vegetation to increase or enhance desired products or outputs (water, forage, wildlife habitat, recreation) or to protect the site from destructive agents (wildfire, floods, accelerated erosion).
- A-2 Vegetation management activities include the disposal, rearrangement, or conversion of vegetation using various treatments.
- A-3 Treatment methods and action include manual and mechanical, chemical, biological (grazing), and prescribed burning.
- A-4 Techniques of vegetation management treatment may be applied singly or in any combination needed for a particular vegetation type to meet specific objectives of resources management. Within existing physical, environmental, ecological, social, and legal constraints of the area to be treated, the method or methods used will be those which are most likely to achieve the desired objectives while protecting environmental quality.
- A-5 The amount of herbicides used in vegetation management is extremely small compared to cropland use. Herbicides are often perceived by the public as dangerous, and their concerns have lead to legal challenges. This will continue to affect the use of herbicides.

#### POLICY FINDINGS FOR PRESCRIBED BURNING

0356.4

- B-1 Used properly under proper fuel and weather conditions, fire is a force for modification of the wildland environment.
- B-2 Effective management of chaparral stands will facilitate fire suppression with more options open to fire suppression forces than exists in unmanaged "free-growing" stands.
- B-3 Unregulated smoke from intense wildfires may concentrate and impact an air basin,

whereas when fire is prescribed, atmospheric stability and wind direction are considered prior to ignition to avoid excessive problems in smoke sensitive areas.

- B-4 The use of fire for any agricultural or other land management purpose is closely regulated by the State Air Resources Board (ARB), local Air Pollution Control Districts (APCD), and The Department. Some APCDs are now initiating fees for prescribed burning projects which will act as a disincentive to engage in controlled burn projects.
- B-5 High-intensity wildfires in chaparral produce significant chemical changes in soils (hydrophobic or water repellent layers) and may lead to severe losses of soil and nutrients if followed by large storms. Prescribed burning under moderate or low intensities can reduce undesirable soil changes and reduce the changes of or even prevent large high-intensity wildfires.
- B-6 The rapid development of buildings in wildland areas has increased the damage potential of wildfires and has made vegetation management to reduce fuel accumulation more important.
- B-7 Increasing age and density of the chaparral stands not only increases fire hazards, it also reduces wildlife habitat, decreases water yields in many areas, and decreases the productivity of the land.
- B-8 An aggressive vegetation management program, coordinated with fire protection programs, can improve resource productivity and lessen the losses from the large high-intensity wildfires that historically have ravaged thousands of acres and destroy valuable resources.
- B-9 The use of prescribed burning, a major treatment method to reduce fuel loading, has steadily declined over the past two decades. This has been due to many reasons, such as greater liability and cost, changing land ownership patterns, and expanding population into forest and rangelands.
- B-10 Proper prescribed burning can provide environmentally and economically sound ways to reduce the threats of fire and help advance many resource management goals. These include reducing fuels, increasing fisheries and wildlife habitat, increasing long-term productivity of forest and rangelands, improving water yields and quality, improving air quality, increasing forage production and maintaining diverse ecosystems.
- B-11 Improved understanding of fire behavior and the development of fire modeling techniques have increased the safety and reliability of prescribed burning over the last decade.
- B-12 In the past, the Department administered a Range Improvement Program for prescribed burns on private lands. A total of 2,660,000 acres were burned under this system since 1945. While initially successful in several areas, this program left the costs, risk of liability and responsibility for escaped fire suppression costs entirely to the landowner. Increased litigation led to a great reduction in the use of this program.
- B-13 In 1981, the Department developed a prescribed burning program (vegetation management) that reimburses up to 90 percent of the costs, based on the degree of benefit to the public. Through mid-1987, more than 258,000 acres had been burned statewide under this program. While the program has failed to reach the program acre goals, it has had a positive effect in helping to reduce acres burned and in reducing suppression costs on several wildfires since the inception of the program. Treated areas are limited because of the high risks, and institutional and technical difficulties which accompany prescribed burning.

forest and rangelands. The Board strongly advocates the use of prescribed fire for fire hazard reduction, wildlife habitat improvement, watershed protection, reforestation, and range and livestock management plans. The Board recognizes that such fire must be carefully planned and controlled. Plans for the use of fire, as an integral part of land management activities, must be conveyed to and understood by nearby landowners, local communities, other cooperative fire agencies and the public at large.

In light of this statement and consistent with Board rules in Title 14 of the California Code of Regulations, the Board adopts the following vegetation management program policy statement:

- I. The Director shall implement general program objectives that:
  - Incorporate long-term vegetation management as an integral part of the Department's overall mission (*i.e.*, resource management, fire control, fire prevention, fire defense planning, etc.);
  - Employ and promote principles of sound vegetation management practices to reduce wildland fire hazards, improve wildlife habitat, increase water yields and quality, promote air quality, and increase forest and range productivity; and
  - Reflect a vegetation management plan involving resource management and fire control professionals.
- II. The Director shall:
  - A. Foster and encourage a vigorous program of vegetation management on public and private lands.
  - B. Continue to pursue adequate and stable funding to accomplish the program objective.
  - C. Emphasize the use of prescribed burns near urban areas with the primary goal of reducing fuels to lessen the potential intensity, spread, and resistance to control of wildfires.
  - D. Give high priority to treatment of areas in any part of the state where conflagrations have periodically occurred or have a high potential for occurring in the future.
  - E. Provide timely, accurate, and consistent information to the public on the purpose, presence, and status of prescribed burning.
  - F. Provide technical advisory services to private landowners, local governments and public agencies to assist in the carrying out of vegetation management projects.
  - G. Where appropriate, encourage joint projects with non-SRA agencies, *i.e.*, incorporated cities, irrigation districts, military reservations, counties, fire districts, etc.
  - H. Provide specialized equipment, management expertise, and fire crews to assist with prescribed burns.
  - I. Develop and distribute public information material to describe and encourage good vegetation management practices.
  - J. Work to achieve exemption from any imposed fees that are a deterrent to the program's objectives (*e.g.*, Air Pollution Control Districts).
  - K. Utilized prescriptions for burning that incorporate the latest fire behavior prediction and fire effects technologies.
  - L. Develop a comprehensive vegetation management training program on prescribed burning including the following: fire behavior, fire effects, environmental concerns/impacts, assessment of fuel loading, use of specialized tools, development of prescribed burn plans, use of prescribed burning in conjunction with fire hazard reduction, wildlife habitat, watershed

protection, reforestation, range and livestock management plans, team building, and contract preparation for CDF and other cooperators including private landowners.

- M. Where appropriate, use the Department's contracting authority for private consultants, contractors, or agencies to do the project planning, preparation, and project execution in areas where there are more requests for prescribed burning operations than can be conducted directly by the Department in a single fiscal year (PRC 4480).
  - N. Encourage follow-up treatments after wildfires and/or initial prescribed burnings. Monitor and evaluate the effects of prescribed burning to more adequately evaluate the results of the project and to encourage re-burns to prevent recurring fuel build-up.
  - O. Establish project priorities as follows:
    - 1. Assess the needs for vegetation management on a statewide basis with primary focus on fuel hazard reduction.
      - a. from this assessment prepare a 5-year action plan. This plan should indicate the degree of benefits to be derived.
      - b. establish the highest priorities for action based on benefits, costs, and risks by ranger unit (for purposes of this policy, Contract Counties shall be considered Ranger Units).
    - 2. Prioritize and fund projects based on expected fuel reduction in high hazard fire areas, wildlife habitat improvements, increased water yield and quality, and forest and range improvement.
  - P. Develop annual statewide program targets for acres burned that:
    - 1. considers past program performance and future plans.
    - 2. considers the difficulty of burns, benefits derived, and planning time in preparing for and executing a project.
    - 3. Considers planning time for those projects that were planned and yet unable to be burned because of external controls.
    - 4. Relates acres targeted to vegetation need for hazard reduction and past unit performance in meeting targets.
    - 5. Sets target acres to be burned by categories of fire hazard reduction in high fire hazard areas, wildlife management, range improvement, or some similar categories or category mix by ranger unit.
- III. Commencing October 1990, the Director shall submit an annual October report to the Board of Forestry on the following:
- A. Prior fiscal year's accomplishments including:
    - 1. number of projects planned, prepared, completed, benefits derived and backlog by ranger unit.
    - 2. quality of burn, *i.e.*, hazard burn, wildlife habitat, forest or range improvement
    - 3. performance against desired burn objectives (end result) and why any were not met (statewide, regional, and ranger unit)
    - 4. method(s) of treatment
    - 5. environmental impacts/concerns
    - 6. other burning permit activities
    - 7. non-SRA cooperative burns.
  - B. Current fiscal year:
    - 1. Program priorities for current year
    - 2. Program needs for future years
    - 3. Follow-up management of past and current year burns
  - C. A description of how the program has met the objectives described in I. and II. above of this policy statement.