THE 2009 ANNUAL REPORT OF THE BOARD OF FORESTRY AND FIRE PROTECTION

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The California State Board of Forestry and Fire Protection (Board) is a Governor-appointed body within the Department of Forestry and Fire Protection (Department). Members are appointed on the basis of their professional and educational qualification and their general knowledge or interest in problems that relate to watershed management, forest management, fish and wildlife, range improvement, forest economics, or land use policy. Of its nine members, five are chosen from the general public, three are chosen from the forest products industry, and one member is from the range-livestock industry.

The Board is responsible for developing the general forest policy of the State, for determining the guidance policies of the Department, and for representing the State's interest in Federal land in California. Together, the Board and the Department work to carry out the California Legislature's mandate to protect and enhance the State's unique forest and wildland resources.

MISSION

The Board of Forestry and Fire Protection will:

Lead California in developing policies and programs that serve the public interest in environmentally, economically, and socially sustainable management of forest and rangelands and a fire protection system that protects and serves the people of the state.

STATUTORY RESPONSIBILITIES

1. ***Establish*** *and* ***administer*** *forest and rangeland policy for the State of California, and*
2. ***Protect*** *and* ***represent*** *the state's interest in all forestry and rangeland matters, and*
3. *Provide* ***direction*** *and* ***guidance*** *to the Director and the Department on fire protection and resource management, and*
4. ***Accomplish*** *a comprehensive regulatory program for forestry and fire protection, and*
5. ***Conduct*** *its duties to* ***inform and respond*** *to the people of the State of California.*

VISION

It is the Vision of the Board of Forestry and Fire Protection that California will have:

1. *A Department with fully integrated resource management and fire protection.*
2. *Healthy forests and rangelands providing a sustainable flow of environmental, economic, and social outputs and benefits.*
3. *Public and private investment to create healthy forests and rangelands.*
4. *Statewide natural resource policies that are coordinated among California's natural resources agencies.*
5. *An open public process that provides a forum for the citizens of the State.*
6. *An engaged citizenry that supports and contributes to the achievement of sustainable natural resource management and fire protection.*

VALUES

The Values that guide the Board in its decisions are:

1. *To protect the lives and property of the people of California.*
2. *To protect, sustain, and enhance the natural resources of the state.*
3. *To address the needs of communities through partnerships with local, state, and federal governments.*
4. *To adapt, innovate, and continually improve our methods and procedures to address the rapidly changing conditions of California.*
5. *To provide leadership in natural resource management and fire protection, with accountability for the Board's and the Department's performance.*
6. *To perform at all times with professionalism and integrity.*

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STRUCTURE OF THE BOARD OF FORESTRY AND FIRE PROTECTION

For the purpose of focusing on particular issues the Board is broken down into four standing committees. The four committees are: Legislation and Policy, Management, Forest Practices, and Resource Protection.

- The mission of the Management Committee is to evaluate and promote long-term, landscape level planning approaches to support natural resource management on California's non-federal forest and rangelands, and to evaluate State Forest management plans.

- The mission of the Legislation and Policy Committee is to evaluate and promote policy and legislation for the guidance of the Department of Forestry and Fire Protection, and to represent the state's interest in federal and non-federal forest and rangelands.

- The mission of the Resource Protection Committee is to evaluate and promote an effective fire protection system implemented by the Department of Forestry and Fire Protection and improve forest and rangeland health in California.

- The mission of the Forest Practice Committee is to evaluate and promote an effective regulatory system to assure the continuous growing and harvesting of commercial forests and to protect soil, air, fish and wildland, and water resources.

To assist the Board in specific matters, other committees can be appointed. One example is the Monitoring Study Group. The Monitoring Study Group's monitoring program provides timely information on the implementation and effectiveness of forest practices related to water quality that can be used by forest managers, agencies, and the public in California to improve water quality protection

Various laws also establish committees to advise the Board in particular areas. Examples are the Professional Foresters Examining Committee, which advises the Board on implementations of the Professional Foresters Licensing Law; and the Range Management Advisory Committee, which advises the Board on range and livestock issues.

The Board has limited funding and staff to accomplish its mission, so it engages in partnerships with sister Agencies and Departments to add needed input and resources. This has resulted in ground-breaking collaborations with Department of Fish and Game and the Air Resources Board.

OVERVIEW

Forestry and the Economy

The decline of the timber industry in California is attributable to three primary factors. First, the largest landowner in the state, the United States Forest Service, has reduced timber harvesting on their lands from almost 2 billion board feet to around 90 million board feet, a reduction of 95 %. Many mills were constructed to utilize the supply of timber from federal lands, and this reduction has led to their closing. In the rural counties where these mills close, there is no industry with comparable wages to supplant it, and local governments are struggling to provide vital services with a greatly diminished tax base.

Secondly, last year's economic crisis hit the lumber industry in the form of declining demand for product due to a slumping housing market. Where the industry had been consistently producing 1.5 billion board feet annually, 2009 volume totals dropped by roughly a third, to one billion board feet.

Lastly, the regulations of various agencies have resulted in the most stringent forest practice system in the world. However, the process surrounding forest practices has so many points of overlap and redundancy, it has created a confusing system of requirements that are difficult for landowners and the public to understand. This results in an inefficient review of harvest plans at a greatly increased cost to landowners and the State.

While California imports around 5-6 billion board feet annually, the State could substantially contribute to its own needs, without cutting more than is grown, and while protecting environmental values. This would make a significant difference as well in the State's carbon footprint, as the transportation and manufacturing related climate impacts of these imports could be reduced.

Without a viable timber industry, California will lack the infrastructure and labor force to manage its forest and rangeland. This would undermine efforts to manage for fire resilient landscapes. Approximately 80% of the available domestic water in the State is derived from forested watersheds--the most significant ecosystem service that these lands provide. Catastrophic fire has the potential to devastate watersheds and pollute the vital domestic water they provide for Californians. Though often controversial, removal and efficient utilization of sawlogs and woody biomass from public and private forest lands remains a key component of California's leadership in climate and energy policy.

2009 Board Action

In 2009, the Board chose to focus its efforts on three fundamental actions:

1. Review and possible revision of the riparian protection rules
2. Review of the California Fire Plan
3. Active engagement on climate policy

Review and revision of the riparian protection rules

The riparian rule review and revision process began in 2006 with the Board's appointment of a Technical Advisory Committee (TAC) to oversee a contract for reviewing contemporary scientific literature pertinent to riparian protection buffer zones and functions. The Board together with its stakeholders agreed that changes to the existing riparian protection rules must be based on the best available, peer-reviewed riparian research literature. The TAC produced primers summarizing past studies related to the riparian functions of wood, heat/microclimate, sediment, nutrients, and water; allowing the contractor to focus on reviewing and synthesizing contemporary literature regarding these riparian functions. Sound Watershed Consulting (SWC) was awarded the contract in April 2008 and presented their findings to the Board in October 2008. A technical expert forum was convened by the Board later in October 2008 to allow highly regarded watershed scientists to comment on SWC's findings.

The Board began its review of non-technical portions of the existing riparian protection rules in April 2008. Draft concept papers for potential changes to Class I, II, and III Watercourse protection rules were discussed at the Board's Forest Practice Committee meetings held in December 2008 through June 2009. Input received at these meetings, and from the interested public resulted in draft rule language that was revised several times. The Board passed a comprehensive and permanent rule package that became effective on January 1, 2010.

The Board's main goals for the rules review and revision effort included updating the decade old existing rules based on contemporary science; providing a high level of protection for endangered species act listed species (federal and state); contributing, to the extent possible through rulemaking, to anadromous salmonid habitat restoration; maintaining consistency with partner agency mandates; and promoting landowner equity, flexibility and regulatory certainty.

Innovative provisions of the final rule package adopted by the Board include a new geographic scope element. For Class I and II Watercourses, rule requirements differ based on whether a planning watershed is found within the Coastal Anadromy Zone (CAZ) or outside this Zone. More protective requirements are imposed within the CAZ, which is mainly found in the California Coast Ranges and the Klamath Province. Additional protection is also imposed in flood prone areas and channel migration zones, since the SWC literature review revealed that these are critical areas for ESA-listed fish species. Large Class II Watercourses located near Class I confluences were noted as "biological hotspots" in the literature review and additional protection measures are now required for these areas. For the smallest headwater streams (standard Class II Watercourses and Class III Watercourses), additional protection is also required to ensure adequate bank stability and sources of wood to slow sediment transport into fish bearing watercourses.

One of the main points made in the SWC review of the scientific literature was that a site-specific (spatially-explicit) approach to riparian management that addresses site and regional variability, as well as disturbance processes in riparian areas, should be developed for California. Therefore, in addition to a relatively conservative prescriptive approach for Class I, II, and III Watercourse protection, the adopted rule package included a site-specific plan section that: (1) recognizes the high degree of biological and physical variability throughout the state, and (2) provides flexibility for landowners,

while meeting or exceeding the objective outcomes of the prescriptive standards. The Board anticipates the development of pilot projects to demonstrate the use of site-specific plan approaches to rule compliance in the coming year.

Review of the California Fire Plan

According the the Public Resources Code (PRC), the primary purpose of the State Fire Plan is as follows:

> *PRC 4130. The board shall classify all lands within state responsibility areas into types of land based on cover, beneficial use of water from watersheds, probable damage from erosion, and fire risks and hazards, and shall determine the intensity of protection to be given to each such type of land. A plan for adequate statewide fire protection of state responsibility areas shall be prepared by the board in which all land of each type shall be assigned the same intensity of protection, and the estimated cost of such intensity of protection shall be determined.*

And:

> *PRC 4131. In the preparation of budgets for fire protection, the total funds available or estimated to be available shall be allocated to the areas to be protected in conformance to such fire protection plan. If the funds available are less than the estimated adequate cost of such plan the board shall determine whether the intensities of fire protection shall be reduced or withdrawn, maintaining uniform consideration for all lands in each type.*

The Board completed a review of the previous Fire Plan, and is considering the adoption of an update. Its proposed Vision statement is:

> *A natural environment that is more resilient, and man-made assets which are more resistant to the occurrence and effects of wildland fire through local, state, federal and private partnerships.*

It further states:

> *Despite California's highly effective wildland fire protection system, some fires will continue to escape control efforts. Under extreme weather conditions, such as high wind or low relative humidity, or when resource availability is limited due to significant fire activity, a small percentage of wildland fires will become large and damaging. As a result, efforts must be taken to create homes and communities that can withstand such fires; develop policies and procedures to promote public and firefighter safety; and educate the public that wildland fire is a natural part of California's landscape.*

The Board is targeting completion of the State Fire Plan Update in 2010. It will begin circulation of the draft Strategic Fire Plan in February 2010. For the second phase, the Board is concurrently working with the Department on the development of metrics for determination of success. These metrics will allow for the Board and Department to evaluate the success of the Strategic Plan. A key metric to be developed is one that

demonstrates the linkage between fire management and the reduction of fire-caused carbon outputs.

Active engagement on climate policy

The Board, with the Natural Resources Agency, established an Interagency Forestry Working Group on Climate Change (IFWG). This new Group was tasked with utilizing a number of existing and pending draft contemporary literature sources as the foundation for developing the Board's Climate Change Mitigation and Adaptation Work Plan. The purpose for the work plan is to achieve or surpass the 5 million metric ton CO2 reduction goal outlined for the forestry sector by 2020 in the California Air Resources Board (CARB) AB 32 Scoping Plan. The literature sources used by IFWG include the CARB's AB 32 Scoping Plan forest related chapters (in particular, Section 16 and Appendix C); the Board's October 2008 "REPORT TO AIR RESOURCES BOARD ON MEETING AB 32 TARGETS"; and the Natural Resources Agency's Climate Adaptation Strategy IFWG will also assist the Board in identifying strategies to link climate change and energy policies with forestry mitigation and adaptation policies across state agencies, especially within programs led by entities represented on IFWG.

The forestry sector is the only sector under evaluation by AB 32 that is a net sink, sequestering carbon far in excess of emissions. It does so while still producing renewable goods and services for the State. Forestry can also increase the sequestration capacity of our forestlands by creating ideal growing conditions and accelerating the rate at which carbon is removed from the atmosphere. Transferring carbon fixed in the forest to wood products like lumber for homes can safely store millions of tons of carbon for decades, or even centuries with a far smaller carbon footprint than steel or plastic. Excess forest fuels that feed catastrophic wildfire could be put to use generating efficient renewable. Providing financial incentives in line with what other renewables receive could help reduce wildfire severity, as well displace fossil fuel use.

BACKGROUND

The social setting of California's forest and rangeland has changed radically since the late 1980s. The State's growing population consumes increasing amounts of forest and rangeland products. At the same time, Californians increasingly demonstrate values and concerns that are redirecting the use of forest and rangeland resources towards non-commodity outputs. Accommodating these shifting values requires innovations in resource management, significant reductions in commodity outputs or both.

Continued population growth adds to concerns over water quantity, water quality, preservation of open space and habitat, species extinction, and wildfire risk. Implementation of the Federal Endangered Species Act, Clean Water Act, and Clean Air Act have made the provision of biological diversity, conservation of species habitat, and protection of air and water quality increasingly important forest and rangeland management themes. This is true of both public lands, but also on private lands which have traditionally emphasized commodity production over other resource values.

As a result of these emerging themes, the framework of laws and governmental structures that existed in the 1970s and 1980s has been expanded. Through litigation, ballot initiative, private sector innovation, legislative action, and administrative implementation a variety of modified and even new institutions have emerged. These include coordinated agency and private projects, watershed groups, fire safe councils, land trusts, and other non–profit organizations. Additional approaches, such as habitat acquisition, working forest and other conservation easements, forest certification, and trading of carbon credits are also being integrated into business operations.

Understanding how these themes play out requires that analysis be done at the watershed and landscape levels, using information systems to provide the full range of necessary data and analyses. Application of science, research, and technology transfer are becoming increasingly important as the methods are still evolving.

Many of these changes show up in the management of public and private lands, and are further reflected in the forest products industry and related employment. They can be seen in the decrease in the area available for timber production, decreased timber harvests, declining mill numbers and capacity, increased unemployment, and restructuring of local economies and revenue.

A major issue for the future of California's forests and rangelands relates to public perceptions of the appropriate mix of private investments, regulation, public investments, and governance processes needed to achieve desired goals. In public opinion polls, an overwhelming majority view overall environmental problems such as air and water pollution, growth, traffic, and water supply as a threat to their health and well-being. Residents also believe that insufficient progress has been made over the past 20 years in solving environmental problems. Innovative strategies to address these concerns and communicate successful approaches to the public will be required.

Fire Patterns

Over millennia, fire has played an integral role in regulating the spatial pattern, composition, and structure of California's natural resources. With its Mediterranean climate, productive soils, and frequent ignitions from lightning and Native American peoples, fire has been an endemic force shaping the landscapes of the State. Many areas of the State have evolved under the natural selection pressure of frequent and relatively low intensity fires. Other areas have been subjected to less frequent, but higher intensity fires. From coastal grasslands to sub-alpine forests to the Mojave Desert, fire has been an active ecological agent in almost all vegetated areas.

Historically, fire has shaped ecosystems in California. This can be seen by interpreting fire occurrence and effects during discrete periods where human influences have managed both fire and fire environments differently. There are three periods: 1) prior to European settlement (before 1700); 2) the settlement period (1700-1920); and 3) the suppression era (1920-present).

In fire-adapted ecosystems, natural (pre-settlement) fire regimes provide long-term ecological stability that annually involved millions of acres of wildfire. Many California ecosystems depend on a particular fire regime for long-term resilience. Disruption of these natural cycles often has significant ecological ramifications regarding vegetation stability and ecosystem health.

While fire is often described as a destructive agent, the ecological role that fire plays on vegetation is often better characterized as fire-maintained or fire-recycled, rather than fire-destroyed. In areas where the regime indicates severe stand-replacing types of fires, often these fires have served as a force of renewal for mature vegetation that required a significant disturbance to begin vegetation life cycles.

Natural fire regimes that existed prior to European settlement in California involved a wide range of fire frequencies and effects on ecosystems; roughly one-third of the State supported fires every 35 years or less. Pre-European settlement fire patterns resulted in many millions of acres burning each year, with fire acting as a major cause of ecosystem change.

The settlement period was marked by increasing influence of changing land use, first from Spanish missionaries then by miners, which brought widespread changes to the fire environment. Subsequently, ranching, open range grazing, farming, timber/fuelwood harvesting, and residential and commercial land development all placed increased demands on land and resources, and led to significant changes in ignition patterns and to the vegetation landscape (i.e., fuels) with which fire interacts.

The modern-era has seen continued modification of land use with the added influence of active and highly effective fire suppression systems.

In the modern-era, statewide fire frequency is much lower than before the period of European settlement. Over the last two decades, California has averaged 250,000 acres burned annually, only a fraction of the several millions of acres that burned under the pre-settlement regimes. Land-uses such as agriculture and urbanization have reduced

the amount of flammable vegetation, and most fires are effectively suppressed to protect resources, commodities, and people.

Area burned in wildfires varies greatly year to year, with climate driving much of the variability. When viewed statewide, the temporal variation masks any possible trends in total acreage, although there has been an apparent increase in high fire years (total area burned greater than 500,000 acres) since 1985.

Trends in wildfire across vegetation types indicate the heavy influence of vegetation characteristics on expected fire frequency. Using the decadal averages of percentage of area burned in each broad vegetation life form, brushlands have burned the most frequently, remaining consistent over the last five decades.

While modern fire frequency is much lower in most areas than prior to European settlement, much of California's wildlands support conditions of high or very high potential fire behavior if fires are not aggressively suppressed. Of the 85 million acres of vegetated areas statewide, 51 percent have fuel and slope conditions that would support high or very high fire behavior when burned under typical severe weather conditions. Fires that burn in these areas under hot, dry, and windy conditions are difficult to control even by the world's most comprehensive wildland fire protection system.

Extensive areas of very high potential fire behavior are adjacent to areas of population centers such as the Los Angeles basin, and the western flank of the Sierra Nevada forms a continuous belt of dangerous fuels.

Forest conditions

California’s forests provide a wide range of values including scenic vistas, recreation opportunities, wildlife habitat, watershed function, commodity forest products, and other uses. A long history of creating parks, wildlife reserves, and wilderness areas in our forests has endowed California with the highest percentage of forests in reserve status of all states, with the exception of Alaska. Old growth forests—primarily in parks, reserves, and national forests—constitute approximately 15 percent of California’s conifer forests. In terms of both total area and as a percentage of total forest area, this is roughly twice as large as the equally renowned old growth forests of the Pacific Northwest region.

Two dominant characteristics of California’s conifer forest are the prevalence of medium size trees and dense forest stands. Forty-five percent of the conifer forest area in California is found in the 11 to 24-inch average stand diameter size class. By comparison, 31 percent of the area is in larger size classes, 17 percent of the area is in smaller size classes, and seven percent is unclassified. In terms of canopy closure, 53 percent of conifer forest is classified as having dense canopy closure (greater than 60 percent closure).

The most productive timber growing portion of California’s forests are the 16.6 million acres of public and private timberland—that is, land capable of growing more than 20 cubic feet of wood per acre per year and statutorily available for timber management. In the case of public ownerships (56 percent of timberlands), many lands capable of timber

production have been administratively withdrawn over the past two decades for a variety of purposes and have been directed to primary uses other than timber production. California has 7.3 million acres of privately owned timberland, of which 5.4 million acres are classified as timberland production zone (TPZ) where long term tax and regulatory structures favor timber production over potential conversion to other uses. Large private ownerships are most likely to grow and harvest timber on a continuing basis. Smaller owners are much more varied and typically also have numerous non-timber related management goals. Increased planning requirements, operational limitations, and habitat protection have increased the expense of timber growing and harvesting on private land.

While extensive, the total area of timberlands is slowly declining. Between 1984 and 1994, about 250,000 acres of the total timberland base, outside of national forests, were removed from production. The leading cause was change to Reserve status (e.g., wilderness, ecological reserves, parks, and open space uses). A smaller amount (approximately 76,000 acres) was converted to non-timber uses (housing, roads, agriculture) from 1984 to 1994, but many more acres were effectively removed from timber production due to fragmentation of ownerships and growing residential uses. Land use data since 1994 does not specifically separate out timberlands, but the overall trend of conversion is continuing (Waddell and Bassett, 1996 and 1997).

The overall status of California's remaining timberlands in terms of total inventory is improving. While the average volume of growing stock per acre on all ownerships declined from the 1950s through the 1970s, it has been increasing since then. In 1994, California's timberland inventory, the volume of growing stock on timberland, consisted of a net volume of approximately 55 billion cubic feet. National Forest lands have over half of the growing stock, but private industry forests hold the most productive tree growing sites and have higher growth rates. Overall, private industry timberland volume inventories are growing at a 2.8 percent annual rate, while rates for other owners vary from 2.0 to 2.3 percent. Whether looked at on a volume basis or an area basis, California's timberlands have significant resources in stands dominated by trees over 100 years old. Across all ownerships, over 22 billion cubic feet (41 percent) is in stands less than 100 years old while, more than 32 billion cubic feet (59 percent) exist in stands greater than 100 years. National Forest timberlands have a higher percentage of their growing stock in stands greater than 100 years (88 percent) as compared to private timberlands (25 percent).

Across all ownerships, there are about eight million acres of timberland in stands under 100 years old and eight million acres of timberland in stands older than 100 years. Seventy-nine percent of national forest timberland area is in stands greater than 100 years old and 22 percent of private timberlands is in stands greater than 100 years old (Waddell and Bassett, 1996 and 1997). The silvicultural methods used by forest managers continue to shape forest conditions. Silviculture is the theory and practice of controlling the establishment, composition, and growth of forest stands. A silvicultural system is a program of forest stand treatments during the life of the stand and includes the development of young trees that will grow over time. Thousands of forest land acres are established or regenerated by natural processes, planting, or seeding each year. Forest composition and growth can be managed by stand improvement practices such as thinning and vegetation control.

There is a mixture of uneven and evenaged forest structure on both private and public timberland. In the unevenaged stands, only some of the trees are harvested in a given harvest and the remaining stand has a mixed aged of trees. Evenaged harvesting practices, which include clearcutting, seed tree, and shelterwood systems, are designed to replace a harvestable stand with well–spaced, growing trees of a uniform age in a single harvest operation (clearcutting) or multiple harvest operations (seed tree and shelterwood). Evenaged harvests represent about half of the total private harvest area in California, and are a controversial issue—particularly by clearcutting. The percentage of total area harvested that was clearcut has increased from 3.6 percent in 1993 to around 15 percent in 2002 (Cunningham, 2003). On one hand, evenaged harvesting systems can increase habitat for certain species that benefit from open area, reduce the spread of insects by removing brood material, lessen the risk of wildfire by reducing fuel loading and continuity, and improve the growth rate of some types of forest stands. Negative aspects include visual impacts, loss of forest "biological legacies" and habitat structures such as snags and down logs, and localized intensity of harvest operations.

In all regions of California, net annual growth of timber exceeds annual harvest on both private and public timberlands. For example, the growth/harvest ratio of 1.52 for the Sacramento region indicates that growth on private timberlands in this region was slightly over one and one-half times as high as harvest. Localized conditions may vary greatly from these generalizations. In some places, large portions of watersheds have been harvested during the recent decades and considerable public concern has been generated in the areas where recent harvest rates exceed growth rates. In many other areas the continued increase in stand density, and more importantly, in surface fuel levels, presents an increasing challenge to the maintaining healthy forests and minimizing the risk of wildfire. Wildfire threats to urban interface communities, increasing forest density, and the synergistic effects of drought, pests, and other environmental influences are significant challenges to the health of California's forests.

An increasingly important aspect of forests' health is their relationship to protecting and improving water quality of the streams and rivers that travel through them. In addition to requiring higher levels of forest canopy along stream courses, there is increased investment in projects to improve fish habitat and reduce levels of sediment input to watercourses. These investments have been concentrated in watersheds with less stable terrain and where populations of salmonids such as Coho salmon, Chinook salmon, and steelhead trout are low. While conditions vary from watershed to watershed, most sediment analyses have identified road systems, and associated stream crossings and drainage systems, rather than the in-harvest operations, as the major sources of additional sediment. New investments are aimed at improving forest road systems to reduce impacts to water quality.

Economics

Many broad social changes are affecting the economic status of the forest products industry and related employment. These include increasing consumption, declining timber harvest outside of privately managed lands, declining number and capacity of mills, and declining timber related employment in forest regions. On the consumption side, Californians use increasingly larger quantities of forest products, water, energy, and other forest values such as recreation. The consumption of lumber and paper products increases as population grows and California's population is projected to increase significantly in the coming years. California could produce most of the forest

products it consumes if the majority of timberlands were managed for wood products production. However, due to a wider set of management goals for public and private forests, most wood products are now supplied by imports from other states and countries.

During the past half century, timber harvesting on both public and private lands in California has fluctuated considerably. Timber harvest volume in California increased from four to six billion board feet between 1948 and 1955, but has declined since then. Timber harvest volume on public lands has declined dramatically since 1989 and recent harvest levels are now less than 0.2 billion board feet per year. Harvest on private lands has declined since 1990, though not as steeply as on public lands.

As a result of declining timber sales, global competition, and production efficiencies, production of timber products in California has changed significantly. California imports nearly all of its paper, pulp and structural wood products and although lumber remains the dominant forest product produced from trees grown in California, the number of sawmills has declined sharply from nearly 100 large mills in 1988 to less than 30 in 2009.

Related employment has also declined as sawmills have installed more efficient equipment better suited to handling smaller diameter trees and have reduced operating hours as harvest levels declined. Employment related to the forest products industry in most rural counties has also declined as local economies have lost forest products as a viable economic contributor. The negative impacts have been most noticeable in smaller counties far from regional transport corridors.

As sawmill employment has declined, the wood remanufacturing industry has become the major employer of timber–related workers in California. Remanufacturing employment fluctuates with consumer demand and is typically located closer to the final markets in urban areas. Within California, wood remanufacturing employment (e.g. mill work, windows and doors, and molding) is primarily located in southern California. Almost 70 percent of California's wood products-related employment is now in the five counties of Los Angeles, Orange, Riverside, San Bernardino, and San Diego.

In addition to providing wood products, forests are the source of a significant portion of the state's surface water. While water runoff is not managed as a commodity until it is diverted into reservoirs, canals, or pipelines, it is the state's most important natural resource. The importance of water lies in the fact that it is an essential, non–substitutable commodity needed for human survival. Usable water is a scarce resource in many parts of California, and water deficiencies (droughts) and excesses (floods) are recurring problems. Water represents the state's most economically valuable natural resource and is essential for ecological functions.

Most headwaters of California's streams and rivers are found within forested landscapes, both publicly and privately owned. More than 70 percent of the average annual runoff of 71 million acre-feet originates north of Sacramento. In contrast, about 75 percent of California's urban and agricultural water demands lie south of Sacramento (Department of Water Resources, 1998). Water is often transferred from one watershed or hydrologic region to another to meet these demands which are located in low rainfall agricultural and metropolitan regions.

The supply of water was insufficient to meet all demands in 1995 and is projected to be consistently insufficient by 2020, especially in low rainfall years. Periods of drought will exacerbate problems in meeting demand for water. Since the 1990s, use of water for environmental purposes has gained increased importance, but urban uses are projected to account for nearly all the projected increased demand for water by 2020.

From an economic perspective, the sale of wood products remains the only end use that generates the level of funds necessary to cover land ownership and management expenses, yet economic output and the associated employment levels associated with timber harvest have declined during the past decade. While forests will continue to play an important role in provision of water runoff and the protection of water quality, the economic linkages between society's downstream demands and upstream management costs remain weak.

Rangelands

On an area basis, rangelands are the largest resource use designation in California. The State's total area of primary rangeland most suitable for grazing exceeds 57 million acres, or over one-half of the state. Approximately 34 million acres are actually grazed and are a vital part of the cattle and sheep industries in California. In addition to seasonal grazing, rangelands provide benefits such as wildlife habitat and recreational opportunities, at relatively little cost to Californians. In particular, near urban areas rangelands provide open space, viewsheds, and related values.

Significant shifts in plant species composition of rangelands have occurred since the late 1800s. Early changes were driven by heavy grazing, severe drought, introduction of large fires for forage improvement, and livestock impacts to aquatic/riparian areas (Kinney, 1996). Over the last two decades, large scale change in livestock management has substantially contributed to recovery of previously degraded landscapes. Where threatened or endangered wildlife and plant species overlap rangelands, some lands have been set aside or restricted in use in an effort to prevent further species loss. Riparian habitat and water quality issues are being addressed on some private ranches as part of Rangeland Water Quality Management Plans, developed by landowners to improve water quality under the federal Clean Water Act.

Rangeland ownership is dominated by public ownership (57 percent) in terms of total area, but productivity and use rates are considerably higher on private lands. Rangeland consists of different vegetation cover types and the ownership of these types differs between the private and public sector.

Annual grasslands (including those within Hardwood Woodland types) are the most important source of range forage and provide over two-thirds of the forage for domestic livestock. California's hardwood rangelands also have historically been one of the most important rangeland areas in the State, providing a substantial portion of California's rangeland grazing capacity. Private lands provide the dominant amount of forage for grazing, as expressed by Animal Unit Months (AUMs) of grazing capacity. While the area of rangelands available for grazing is evenly distributed between private and public land, private lands provide nearly three times more AUMs for livestock and wildlife grazing.

With the exception of deer migration and other wildlife habitat, rangelands have been seen traditionally in the context of the State's cattle and sheep industries. In 1990, 40 of the State's 58 counties listed cattle and beef among the top five agricultural commodities in terms of gross value. Major rangeland commodities include animals, meat, wool, and a host of related byproducts. Despite widespread diversification of California's economic base over the past decade, cattle and beef were still among the top five commodities in 33 counties in 1999. California's cattle and sheep industries remain significant compared to those in other states.

California is a net importer of beef and other major rangeland commodities. Beef consumption in America has declined as consumers turn to chicken, turkey, and fish although this decline seems to have stabilized in recent years (U. S. International Trade Commission, 1999).

Based largely on increases in population growth, total consumption of beef in California is projected to increase over the next decade. Livestock is increasingly a global industry, with many countries importing and exporting livestock and livestock related products. This global movement of animals and meat makes the livestock industry very susceptible to transport of disease. Concerns over two diseases have recently dominated the U.S. and international arena: foot–and–mouth disease and mad cow disease. California has taken extra precautions to be able to detect and respond to any potential outbreaks.

In some cases, viability of existing ranching operations has been affected by changes in grazing policies by public agencies. As part of a broader policy of ecosystem and watershed management, public agencies have placed less emphasis on commodity production and more emphasis on rangeland restoration through limitations on grazing and implementation of restoration projects. This approach has decreased the availability of forage allotments from federally owned lands and increased the uncertainty of forage supply to ranchers who have historically depended on it.

As development occurs, rangelands in many locations provide added values beyond being a source of forage for grazing. Rangelands buffer urban growth and provide open space and a variety of other values to metropolitan populations at relatively low cost. In an effort to maintain these values, there has been increased focus on keeping rangelands in larger tracts near urban areas. In some cases, efforts are providing opportunities for ranchers to continue operations and preserve the many ecological and social values offered by operating ranches.

The range landscape in the coming decades could well entail a dynamic mix of larger ownerships devoted to livestock production intermixed with smaller ownerships managed for a wide variety of both livestock and non-livestock goals. Outside sources of income will be increasingly important. Development, especially in the form of the break-up of larger parcels into smaller parcels, will proceed. At the same time, more rangeland area will be controlled by governmental agencies, conservancies, and private parties that are not dependent on livestock production for revenue. In some cases, ranchers will continue to own the land and manage livestock on ranches where development rights have been ceded to a third party via conservation easements.

KEY ISSUES

1) **Integration of environmental, economic, and social goals**: The sustainability of California's forest and rangelands is at a defining moment. Improving inventories, diverse forest structure, and a greater attention to maintaining valuable biological legacies are juxtaposed against the pressures for forest and range conversion, declining forest health, and declining industry infrastructure. Continued progress will require continued investment and innovation in resource management from both the private and public sectors. Private sector investment in land ownerships and businesses selling goods and services generates employment and local government revenues in rural areas but is dependent on continued market-based profitability linked to a predictable and stable forest product stream. Public sector investments are dependent on the financial support of an increasingly urban population and the social values to both urban and rural communities and stakeholders.

2) **The Working/Private landscape**: The Working/Private landscapes are those lands managed for a wide range of purposes with commodity production as the major economic basis for ownership. Historically, the Working/ Private landscape has provided commodities, jobs, open space, and ecological services to the public at little direct cost. These lands have a history of investment and active management. Low profitability for timber and livestock operations and increasing regulatory costs create strong pressures for parcelization, fragmentation, and land use conversion. New ways to keep the Working/Private landscape viable while providing a wide range of public values are necessary.

3) **Watershed conditions**: Maintaining, and where needed, improving watershed conditions are vital to California. Many watersheds have historic legacy impacts, ongoing land use changes, and episodic intense wildfires that degrade water quality and aquatic habitat conditions. In degraded watersheds, a key policy challenge includes addressing linkages between current land uses, natural catastrophic events, and investments in restoration.

4) **Wildfire threats**: High fuel loads, the growing extent and intensity of wildfires, and increased population in forests and rangelands all magnify the risk of wildfire to people and resources. This threat requires continuing focus on the vegetation management of forest and rangelands. The tools necessary to manage these areas are becoming more costly and difficult to utilize due to competing regulations, conflicting values within the Wildland Urban Interface, and the lack of necessary infrastructure for cost effective treatment.

5) **Productivity and forest health**: Timberland growing stock volumes and densities have been increasing as a result of reduced harvesting (most noticeably on federal lands) and exclusion of wildfire. While this trend has had beneficial impacts for some terrestrial and aquatic habitats, it has also led to an increasing inventory of unutilized timber and dense forest stands. This results in a lost opportunity to generate the wood products needed by Californians, and also increases detrimental impacts such as insect and pest outbreaks, catastrophic fire, and the loss of habitat for species dependent on open, less

dense forest settings. Increasing temperature and drier moisture regimes via climate change will need to be addressed.

6) **The Wildland Urban Interface**: Forests and rangelands near urban centers, along with those adjacent to rural communities, are the most visible and are of the greatest value to the people near these areas. Management is needed for forest health improvement and wildfire risk reduction. If this necessary management is to be successful, it must address the array of social concerns of the neighboring communities.

7) **Land use pressures**: Conversion for new housing continues on rangelands and forests near metropolitan areas and in the wildland urban interface. Most of the development has a low density of houses per acre so the land impact is considerably greater than the population impact. This type of development removes natural vegetation and breaks rangelands and forests into smaller units. This reduces habitat value for wildlife species dependent on un-fragmented natural vegetation and makes it more difficult to manage the remaining larger parcels. California's population will continue to expand and will need to be accommodated while lessening negative impacts to the environment.

8) **Carbon sequestration and air quality:** Our forests serve as vast reservoirs of carbon and forest management represents a foremost opportunity to sequester carbon in several ways. Forests fix carbon as they grow; forest products can be used to produce clean, renewable energy; managed forests fix carbon at greater rates than unmanaged forests; and managed forests are less likely to be lost to catastrophic fire with the attendant large scale release of carbon into the atmosphere. Systems that encourage and reward carbon sequestration will be needed to address this.

9) **Policy coordination and integration**: Multiple regulatory processes often impede progress toward desired goals, discourage investment, incur substantial taxpayer funded regulatory costs, and add uncertainty that increases costs to landowners and other stakeholders. Better coordination and integration will be essential to holistically and effectively match appropriate tools to the many challenges.

REGULATIONS ADOPTED IN 2009

The Board of Forestry and Fire Protection continually reviews its current rules for needed improvements or updates as well as the need for new rules to address new or evolving issues. In 2009 the Board completed its review and development of rules for the following issues. The Board followed its Rule Development Policy guidelines in an open public process in order to consider the needs of the public as well as to obtain a complete understanding of the environmental impacts of forest management.

1. Anadromous Salmonid Protection Rules, 2009

The Board adopted regulations for commercial timber harvesting on private land in watersheds where anadromous salmonid (salmon) species are designated as threatened or endangered species under the State or Federal Endangered Species Acts (ESA). The adopted rules are intended to protect, maintain, and improve riparian habitats for listed anadromous salmonid species. The rules adopted are permanent regulations and replace rules (termed Threatened or Impaired Watershed Rules) which were originally adopted in July 2000 and have been in place on an interim basis since that time.

Beginning in 1999, after a review by a Board commissioned Scientific Review Panel, the Board adopted statewide Forest Practice Rules for "Protection and Restoration in Watersheds with Threatened or Impaired Values" (Threatened or Impaired rules). These regulations were adopted with the understanding that over time, and based upon the results of monitoring, they would be refined to provide protections on a more site-specific basis, rather than a "one size fits all" approach. These rules have continuously been in place since, providing a high level of protection for riparian zones and all anadromous species.

In 2006, the Board undertook an ambitious review of the rules to address various concerns expressed by NOAA Fisheries and the Department of Fish and Game. The time was right for such a review, as sufficient time had elapsed to provide meaningful data on the efficacy of these rules. The Board therefore commissioned a Technical Advisory Committee, comprised of State and federal Agencies (including both Fish and Game and NOAA Fisheries), as well as some of the most eminent scientists in this field. Their final report was received by the Board, and now forms the basis for a new rule package for all salmonids.

At about the same time (July of 2006), the Board and the Departments of Fish and Game and Forestry and Fire Protection were asked by the Secretary of Resources to begin investigating ways to work collaboratively to address protection of salmonids. During the investigation process, one idea examined was that of a Federal Habitat Conservation Plan (HCP) for all salmonids. To do this, various regulatory schemes were drafted to provide a basis for such an outcome. After further investigation, NOAA Fisheries advised the Board that such a process would take five years and considerable monetary expenditure. This was verified by a prominent former NOAA Fisheries Administrator in a presentation before the Board on the experiences of Washington State in the development of their timber-based HCP.

The decision was made at that juncture to pursue a phased process and build toward a potential HCP. Phase one was the development of coho-specific regulations that would

address the Incidental Take issue. Phase two, which operated in parallel with phase one, addresses the review of the Threatened or Impaired rules. This review has lead to a vastly improved system that combines elements of prescriptive standards based on the scientific review process, and site-specific regulation that focuses on the limiting factors to salmonid recovery statewide – an "all-anadromy" solution.
This phase also incorporates an extensive review of monitoring requirements, so that adaptive management strategies can evolve. This will address a very important element in any potential HCP.

Included within this phase is an extensive review and rewrite of all regulations pertaining to roads. The Road Rules Task Force has made its recommendations (Fall 2007). Also worth noting is that the Board has adopted a new "Road Management Plan". This Plan will allow landowners to provide long term management strategies for their transportation networks.

Phase three will be a revamping of the approach to cumulative watershed effects analysis, as the Board of Forestry and Fire Protection is examining a new methodology for identifying high risk areas within watersheds. Work on this is beginning with development of a joint policy statement between the Board of Forestry and Fire Protection and the State Water Resources Control Board.

Finally, along with the Department of Fish and Game, the Board will revisit the HCP process, to determine whether or not it can be utilized in an effective manner to provide protection to all salmonids in their full range.

- The Board finds that the adopted regulations are based on the consideration of an extensive review and evaluation of applicable scientific literature. The adopted rules are found to be based upon the science literature review and testimony from scientists and technical experts in the fields of watershed processes, riparian functions, and fisheries biology.

- The adopted regulations are based on recommendations by the Department of Fish and Game, the California Department of Forestry and Fire Protection, the State Water Quality Control Board and Regional Boards, and numerous individuals.

- The adopted regulations are found by the Board to be consistent with goals established in the *California Fish and Game Commission, Board of Forestry and Fire Protection, Joint Policy Statement on Pacific Salmon and Anadromous Trout*

- The Board finds that the adopted regulations will maintain and improve aquatic habitat and contribute to restoration of listed anadromous salmonids. This finding is based on the expected effects on the beneficial uses of water, including cold freshwater habitat , spawning, migration and rare and endangered species resulting from the following adopted rules:
    - Goals and objectives are revised to promote achievement of properly functioning salmonid habitat, contribute to recovery of salmonid species and restoration of salmonid habitats; and protect riparian zones from catastrophic wildfires. The adopted goals and objectives are intended to be specific for each watercourse area and beneficial use, but are stated

broadly to permit development of site-specific plans based on local conditions. Further, while it is the Board's intent to have timber harvesting plans in these watersheds contribute to the recovery of listed salmonid species, the Board recognizes that contributions to recovery of the species and restoration of habitat cannot fully be accomplished by any one timber harvesting plan or by forest management alone. Any actions beyond the required rules taken solely for restoration cannot be required for harvest plan approval.

- Greater specificity in geographic scope was achieved by creating regional rules reflecting salmonid species and geomorphic differences. The Board adopted rules that are geographically specific for salmon watersheds in coastal areas, the southern sub district of the forest practice rules which encompasses Marin County to Santa Cruz County, the Northern Forest District where coho species are found which represents the Klamath bioregion, and locations outside of where coho species are found which represents areas in the Sierra Nevada and south of Monterey County. The greater geomorphic specificity is also achieved by recognizing unique riparian features such as channel migration zones, flood prone areas, and differentiating small Class II watercourses from large Class II watercourses. Geographically specific rules were also accomplished by requiring implementation of the fine sediment road related rules in 916.9 (k) through (p) in watersheds upstream from any watershed with listed anadromous species.
- Class I and Class II watercourse WLPZ widths and silvicultural requirements revised to better reflect current science for protecting riparian function. These revisions include establishment of a core zone, increased overstory canopy closure requirements for greater distances on Class I watercourses, and establishing two new watercourse classifications, Class II Large and Class II Standard, with unique tree retention and core zone requirements.
- New, more protective standards for small, headwater watercourses (Class III watercourses). The standards include establishment of Class III channel zone and Equipment Limitation Zone (ELZ) harvesting restrictions, expansion of operational limitations in the Class III ELZ, retention of hardwoods, advanced regeneration or larger conifer trees, standing dead trees, and down woody debris and logs in Class III channel zones and equipment limitation zones.
- Allowance for the development of site-specific plans that contain flexibility for landowners to meet goals and objectives while providing appropriate disclosure for regulatory evaluation. The Board finds that it is necessary for successful implementation of site-specific plans to provide additional guidance documents, technical addendums, pilot projects, and collaborative monitoring and adaptive management.
- Provision of recommended "Preferred Management Practices" that will guide expectations of timber operation conduct to achieve the goals of the rules.

- The Board finds that the adopted regulation will result in economic impacts to some forest landowners. The primary economic impact is related to a likely increase in retention of trees for Class II and III watercourses. By increasing the amount of trees needed to be retained in the watercourse and lake

protection zone of Class II and III watercourses pursuant to 14 CCR 916.9 (g) and (h), there is a permanent reduction or delay in receipt of timber harvest revenue to the landowner. Landowners with flood prone areas will also see a significant amount of trees required for retention. For those landowners with flood prone area, this regulation may be a disincentive to rehabilitate understocked areas.

- Landowners in the geographic scope of this regulation have made, and continue to make, significant contributions to the State of California by the fact of forgone harvest in riparian areas.
- The current economic conditions, both for the State as whole and the timber industry, make the impacts of any regulation much more apparent. These impacts make economic harvest of a renewable resource much more problematic.
- There are approximately 2,000,000 acres of timberland in the area of the regulation. This does not include HCP acreages, as these are not subject to the regulation.
- In the 2,000,000 acres, approximately 12% of the acreage is in I, II, or IIIs, or 264,000 acres
- Over 3 billion board feet of timber in these riparian areas are subject to regulation. This timber has values between $500,000,000 and $1,000,000,000.
- The increases in protection proposed will result in a reduction of value/harvestable volume of approximately 1.4% in unevenaged treatment, and 3.96% for evenaged treatments.
- Yield tax revenues will slightly decline as a result of this regulation.

- General prescriptive rules are considered local rules and are needed for those landowners who do not wish to engage in the development of site-specific plans or are unable to obtain the information to make site-specific assessments due to issues of multiple ownerships within a watershed. Site-specific plans are necessary to be consistent with scientific literature findings that suggest protection and restoration of watersheds is best obtained by assessing watershed conditions and identifying needs for the specific location. It is intended by the Board that the actions approved pursuant to the adopted language for site-specific plans will meet or exceed the expected affects of protecting beneficial uses of water under the prescriptive standard, and could simultaneously have a quantitative characteristic different from the prescriptive standard.

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- The Board finds that pilot projects and guidance for landowners who choose to develop site-specific riparian management plans pursuant to the adopted regulation in 14 CCR 916.9 (v) is necessary. By providing landowners the opportunity to develop site-specific riparian management plans, landowners may be able to harvest trees that would have otherwise been retained, provided that they are determined to be unnecessary for protection, maintenance, or restoration of the beneficial uses of the riparian zone. This would reduce the economic impact of the prescriptive portion of the rules. Moreover, allowing site specific proposals can create an economic incentive for landowners to engage in active management and restoration of these areas, although such an analysis will require a substantial investment by the landowner.

- The Board acknowledges that this rule does not fully address Clean Water Act section 303(d) listed waterbodies, long term monitoring and adaptive management, road construction and maintenance, and cumulative impacts. This rule is primarily intended to address anadromous salmonid protection. The Board, through its mandate, is committed to the continuous review and improvement of forest practices, and will likely address many of these issues in the future.

The Department of Fish and Game made the following findings:
Our common goal has been to use the best available science to further integrate protection of anadromous salmonids listed under the California Endangered Species Act with the Board's regulations, consistent with the Forest Practice Act and the California Environmental Quality Act in a permanent 2009 threatened or impaired watersheds rule, now re-titled "Anadromous Salmonid Protection" rule. We believe the proposed rule package, together with our recommendations, achieves this goal in a way that provides certainty and flexibility to the regulated public through methods and measures that are both implementable and feasible and that recognize regional differences in forest practices.

2. **Evaluation for "Take" Avoidance of Northern Spotted Owl, 2009**

In June 1990, the U.S. Fish and Wildlife Service (Service) listed the Northern Spotted Owl (*Strix occidentalis caurina*) as threatened under the Endangered Species Act. As a result of the listing, the Board of Forestry and Fire Protection adopted, and the Office of Administrative Law certified, the existing Forest Practice Rule sections 919.9 and 919.10 (rules) for implementation in 1991. However, the rules were seldom used because the Service began providing informal assistance to the California Department of Forestry and Fire Protection (CAL FIRE) regarding the review of timber harvest plans (THPs) and nonindustrial timber management plans (NTMPs) to ensure that harvest activities do not result in incidental take of the owl.

Formal review by the Service began in 1999 with a request from the former CAL FIRE Director Andrea Tuttle. The request cited the CAL FIRE 's lack of in-house biological expertise to assess whether harvest activities would result in incidental take of northern spotted owl. Since 1999, the Service has worked closely with CAL FIRE to facilitate timely, efficient, and defensible review of THPs and NTMPs. However, in November 2007, due to its own limited budget and increasing workload, the Service notified CAL FIRE that beginning in February 2008 it would be unable to continue providing technical assistance on timber harvest activities.

CAL FIRE must make preliminary determinations of incidental take avoidance for the owl in order to approve Timber Harvesting Plans, Modified Timber Harvesting Plans, Program Timber Harvesting Plans, and Nonindustrial Timber Management Plans (Plans) proposed within the range of the species in California (ref. 14 CCR §§ 898.2(d)). In order to make such determinations prior to plan approval and to assure compliance with the disclosure requirements of the Forest Practice Act and the California Environmental Quality Act, CAL FIRE must ensure all plans located within the range of the northern

spotted owl incorporate sufficient information related to the species and its associated habitat and include enforceable protection measures for the species.

Since receiving notification that the Service would no longer be able to provide technical assistance to CAL FIRE, obstacles have surfaced which make implementation of the existing rules extremely difficult in the short-term and perhaps in the long-term. First, CAL FIRE needs the opportunity to receive as much biological input as possible to assess whether harvest activities would result in an incidental take of northern spotted owl. Second, the California Department of Fish and Game (DFG) are unable due to funding constraints to assist in the process by providing a qualified biologist from their department. This creates an insurmountable obstacle to implementation of the rule because both existing rule sections require either a "state-employed designated biologist" or "review" by the Department of Fish and Game."

The purpose of the regulation is to provide CAL FIRE a mechanism for obtaining biological expertise to assist in the process and still maintain scientific integrity in the review process. The proposed regulation is necessary to ensure that (1) harvest activities do not result in the incidental take of a northern spotted owl; and (2) Plans are approved in an efficient and timely manner.

3. Sustained Yield Plan Renewal, 2009

This amendment is the result of the Board of Forestry and Fire Protection's (Board's) specific inquiry into the use and effectiveness of the existing Rules. The FPRs for SYPs have been little utilized since their adoption by the Board in 1993 following action by the legislature. Presently there are only three effective SYPs in existence, two of which are under the management of the same entity. As the Board seeks to promote sustained, long-term timber management planning across broader landscapes, it was compelled to try and understand why SYPs were not being utilized to the extent originally envisioned.

The Board's inquiry included several publicly-noticed, informal Board Management Committee meetings in which testimony was received from the two constituents working with SYPs as well as agency representatives and other interested parties. On July 10, 2008, the Board convened an SYP Workshop on the lands managed by the two constituents with SYPs that included the participation of representatives from the timber industry, state agencies, and environmental advocacy groups. The Workshop included discussion amongst participants about the history, limitations, and potential for increased utility of the existing regulations. As a result of this intense scrutiny, a number of specific problem areas were identified for possible remediation through amendment of the existing FPRs.

The specific problem area addressed in this regulatory proposal is related to the ten-year effective period of an SYP. It is clear that the Legislature intended that an SYP be valid for a maximum of ten years. It is likewise clear that they intended SYPs to be re-submitted over consecutive decades by the same ownership. However, the process for submittal and review of consecutive SYPs is not clearly described in the existing FPRs.

The Board recognizes that the lack of a clear process for renewal of existing SYPs in the current regulations is more likely than not to result in steadily diminishing interest in use of the three existing SYPs and any possible future SYP submissions. This regulatory

proposal is intended to remedy the lack of clarity on the review and approval of successive SYP documents through specific rule language revision and additions.

4. Fire Prevention Precautions, 2009

In late 1990, a short term spike in the price being paid for "clean" chips for paper created a market for the use of mechanical logging sides in California. This reasonably new technology provided three major types of cutting heads on the feller-bunchers. The first type is the shear type cutting head that was hydraulically actuated and used a scissor type mechanism to sever the tree from the stump. These heads were generally on tricycle type units that were limited to harvesting trees less than 18 inch diameters. This type of feller-buncher was primarily a rubber tired machine and presented no history of starting fires in their operations.

The second type of mechanism was an opposing set of chainsaw bars that severed the tree from the stump. This type of head was reasonably more precise in the log lengths and could be used on larger trees. These machines could be mounted on tractors and forwarders, and were able to harvest larger trees.

The third type harvesting head was the "hot saw". This was a large metal disc that was turned at very high RPM's to sever trees from the stump. These heads could be used on trees up to 24" diameter, and were typically mounted on larger track type power units that could be safely and efficiently operated on slopes up to 50%. The ability of this type head to harvest larger diameter trees and operate on steeper slopes has made it popular for use in the mechanical logging operations. The metal disc has large, metal, replaceable teeth that are installed on the outside edge of the metal disc. Because of the speed necessary to allow the cutting of the tree, dust is raised by the use of these machines. This cloud of dust raised by the harvesting operation makes it difficult for the operator to assure that the head does not hit dirt or rocks near the base of the tree. When this disc or the teeth strike a rock, sparks are created and these metal flakes come off at a temperature in excess of 1500º Fahrenheit, and can easily ignite forest fuels.

Since 2000, hot saw operations have been responsible for starting anywhere from eight to 20 fires per year in California on a combination of federal and private ownerships. In 2004, a "hot saw" timber operation in Lassen County caused the Straylor fire where a patrol did not detect the small smoldering fire that became the Straylor Incident. In 2005, the "51" fire in Amador-El Dorado CAL FIRE Unit was caused by a "hotsaw" operation and cost $365,000 to suppress. In 2007, the "New Bear" fire in Siskiyou County was caused by a "hot" saw operation. The measures included in the proposed regulation could very well have prevented the $12,400,000.00 expenditure required to suppress these wildfires. In recognition of the higher likelihood of "hotsaw" operations starting wildfires, several larger industrial landowners have incorporated many of the proposed requirements of the regulation included in this package.

While existing regulations provide for fire inspections during all timber operations, terms and conditions of the inspections are not well defined. Currently, 14 CCR **§** 938.8 reads, "The timber operator or his/her agent shall conduct a diligent aerial or ground inspection within the first two hours after cessation of felling, yarding, or loading operations each day during the dry period when fire is likely to spread. The person conducting the inspection shall have adequate communication available for prompt reporting of any fire

that may be detected." The fact that the regulation does not specify the definition of a "diligent" search for fire has led CAL FIRE to propose the measures required in this regulation to suggest measures that could be implemented to prevent fires.

The primary purpose of the proposed regulation is to require a foot patrol fire inspection to prevent wildfires ignited by commercial timber harvesting operations utilizing mechanical felling machines equipped with a rotating metal blade. The proposed regulation is "pilot project" with a limited duration of three years and applicability limited to the Northern Forest Practice District. The proposed regulation applies to only mechanical felling machines equipped with a rotating metal blade (either "hot saw" or intermittent, excluding chainsaw type bars or shears.) and is not intended for other types of equipment.

5. Forest Improvement Program, Urban Forestry, Chaparral Management Regulatory Updates, 2009

Existing regulations for the California Department Forestry and Fire Protection's (CAL FIRE) Forest Improvement Program, Urban Forestry Program Procedures, and Chaparral Management Program specify the manner in which the state shares the cost of beneficial work in urban and undeveloped landscapes with private landowners and other entities. The work carried out through these programs includes, but is not limited to, tree thinning, planting, hazardous vegetative fuel treatment, urban forestry projects, and prescribed burning.

The federal American Recovery and Reinvestment Act (ARRA) of 2009 is intended to provide a total of $250 million dollars in federal funds nationwide in support of state and private, urban and rural forestry projects. The United States Forest Service (USFS), Region 5, will be administering these federal funds to state and private entities. USFS representatives have indicated to CAL FIRE representatives that the state will be a likely recipient of a portion of the available funds. The state would then administer the funds as grants to private landowners, fire safe councils, and other entities.

However, ARRA requires that there be no cost share requirement associated with the federal funds. The existing Grant Guidelines in 14 CCR 1553 regulations identified in this proposal all specify a cost share requirement. Therefore, in order to potentially receive federal funds, the regulations must be modified to allow for waiver of the cost share requirement. As the funds are expected to become available soon, there is some urgency to this regulatory proposal.

This regulation is intended remove impediments in the form of cost share requirements for the Forest Improvement, Urban Forestry, and Chaparral Management Programs such that federal funding may be secured for these programs. The American Recovery and Reinvestment Act (ARRA) recently took effect and could potentially provide millions of dollars in federal funds to support these programs. In order to receive funds, ARRA specifies that there be no cost share requirement imposed. This proposal modifies regulatory language for these programs to include provisions for waiving cost share requirements.

6. Emergency Notice Effective Period Extension, 2009

On September 9, 2009, the State Board of Forestry and Fire Protection (Board) adopted amendments to the existing Forest Practice Rules (FPRs) to lengthen the effective period of an Emergency Notice from 120 days to one year. The amendments contribute to the maintenance of consistency with the statutory direction of Public Resources Code Section (PRC §) 4592. This Code Section specifies that immediate harvest activities may occur under emergency conditions in which fire, insects, and/or disease has resulted in damage to timberlands. Timber harvesting is the first step in the process of returning the damaged lands to a vegetated and productive condition. Once salvage of damaged timber has occurred, reforestation activities to restore stocking, curb erosion, and contribute beneficially to watershed function may then be commenced. The amendments adopted by the Board further support restorative actions on timberlands damaged by natural agents such that long term health and productivity of those lands may be sustained.

The Board's amendments also provide additional time for the completion of operations under an Emergency Notice for Fuel Hazard Reduction. The addition of more operating time is likely to translate to greater project area reductions in hazardous fuel loading, and concurrent increased resiliency to fire events. The lengthening of the effective period also assures that where preparation and approval of a succeeding Timber Harvesting Plan (THP) is necessary, that work can be completed prior to expiration of an Emergency Notice.

Findings

- The Board finds that Public Resources Code Section 4592 authorizes immediate commencement of timber operations where a bona fide emergency condition has been identified by a Registered Professional Forester. Emergency conditions specified in the FPRs by the Board include tree damage and mortality resulting from insects, disease, parasites, animal damage, landslides, earthquakes, air and water pollution, and weather effects such as wind, snow, and flood; as well as high, very high, or extreme fuel hazard conditions.
- The Board finds that salvage of damaged timber is an important first step in the reforestation of private timberlands and restoration of beneficial watershed function. Private timber owners should be encouraged to the extent feasible in the regulatory process to restore the health and productivity of timber stands adversely impacted by damaging natural agents.
- The Board finds that the existing 120 day Emergency Notice effective period can be extended to allow timber owners additional time to complete emergency timber harvesting activities without creating additional risk to natural resources.
- The Board finds that the existing 120 day Emergency Notice effective period may not provide enough time for completion of both the THP plan preparation and the THP approval process. Central to this concern is the often lengthy period of time necessary to complete fieldwork and biological evaluations that are necessary for THP submission.
- The Board finds Emergency Notices provide for adequate review of resource values, must adhere to all FPRs, and have specific restrictions beyond the existing minimum FPRs. Together these regulations are effective in avoiding significant adverse environmental impacts at a site specific and cumulative landscape level.
- The Board finds that additional time is needed for Emergency Notices on certain emergency harvesting projects such as insect mortality salvage logging. The

additional time is needed to ensure that resource damage created by the emergency (e.g. epidemic insect population levels resulting in spread of tree mortality and increased fire hazards) is completely mitigated. Also additional time is needed to fully recover insect damaged merchantable timber that is generated throughout insect population cycles.

7. Definition of Employee, 2009

The Public Resources Code (PRC) §§ 4526.5 and 4571 provide that a timber operator must be licensed and is one who conducts timber operations, except a person who is engaged in timber operations as an employee with wages as their sole compensation. Further, PRC §4528.5 broadens the exemption for employees with wages as their sole compensation to the entire Z'berg-Nejedly Forest Practice Act (FPA). Since the concept of "…employee with wages as his sole compensation" appears straight forwards, the Board of Forestry and Fire Protection has never sought to further define the terms. However, in a recent Timber Operator Licensing denial action, this lack of definition became a significant legal debate and resulted in an adverse ruling by an Administrative Law Judge who pointed to the lack of any guidance from the Board of Forestry and Fire Protection.

The language contained in PRC §4526.5 which exempts employees has been in-place since the inception of the Z'berg-Nejedly Forest Practice Act. While this section's interpretation and enforcement was generally straight forward and caused little problem, the subtlety and interrelationship of it became clear when it was applied to Licensed Timber Operators (LTOs) whose license had been denied or revoked.
Historically, LTOs who had lost their license simply had their spouses, sons or friends obtain a Timber Operator License and continued to conduct work with immunity. The difficulty then was attempting to obtain the necessary evidence to try and prove who was really "in-charge" of the operation in a closely held private business, particularly involving a spouse. In 1996, the Associated California Loggers sponsored a bill which made numerous changes in the LTO licensing law, including the addition of PRC §4576.1 which added considerable language related to financial arrangements and effectively eliminated much of the circumvention using licensed surrogate individuals. However, it was never considered that the exemption for "employee with wages as sole compensation" could be sufficiently misinterpreted so as to negate and void the application PRC §4576.1 to an LTO whose license had been denied.

The amendments provide guidance for the regulated public, Department and Administrative Law Judges on the characteristics of an employment arrangement that define an "employee" thereby exempting the employee from needing a timber operators license to conduct timber operations.

The regulation also clarifies licensed timber operator (LTO) responsibilities related to those who are "subcontractor" to the LTO. Finally the proposed regulation deletes redundant regulatory sections that specify LTO responsibilities.

8. Utility Clearing Exemption Extension, 2009

The proposed regulation extends until January 1, 2012, an existing regulation for fire prevention standards for electrical utilities. The existing regulation includes an exemption to the utility vegetation clearing requirements in § 1257(a)(3). The exemption allows for healthy, mature trees (trunks and limbs), that are sufficiently rigid so they do not present a risk to public safety, to be closer to powerlines than the minimum clearing distance under existing regulations. These trees/limbs are commonly referred to as major woody stems, or MWS.

The exemption reduces the allowable minimum clearance between the MWS and energized lines to six inches, compared to the existing clearing requirement of four feet (for lines less than 75,000 volts). The proposed extension to the exemption would be permitted for a limited period, expiring January 1, 2012. The exemption applies to utilities lines in State Responsibility Area (SRA).

Electrical utility lines are one of the hazards that cause wildfires in State Responsibility Area. Electrical utility lines can cause fires when high winds cause vegetation to sway into powerlines, break off limbs or cause trees to fall into the power lines usually under dry weather conditions. High winds can also cause vibration in lines that can break or stress utility connectors. In these situations, electrical arcing (an electrical transfer of energy) can occur. When combustible vegetation comes in contact with the arcing, a fire can ignite. With tens of thousand of miles of transmission and distribution lines on wildlands, the risk of ignition of a wildfire is considerable and the effort to meet this risk and prevent wildfires from utility line ignition is substantial.

While powerlines are a known ignition source, there is no known documented instance of a fire that was caused merely by the proximity of a MWS to the energized conductor (electrical powerline or other electrical utility hardware). Utility companies and CAL FIRE have been monitoring the existing MWS regulation since its inception in 2007, and no fire ignitions have been caused by or related to MWS.

This exemption for MWS was initially established in 2007 and had a limited time frame to implement the regulation (sunset date of December 31, 2008). Subsequent extensions have been granted to complete an experimental period for implementation and an evaluation the results. If the interim rules proved effective, permanent rules would be requested by the utilities and/or the Department and considered by the Board.

Monitoring work to evaluate the rule has not been extensively completed by CAL FIRE for performance and enforceability. The extension is necessary to allow time to monitor for performance and enforceability. CAL FIRE has been directed by the Board to provide an initial report on the effectiveness of the regulation six months following this regulation's effective date and provide a final report prior to expiration of the proposed rule.

The temporary extension is also necessary as the California Public Utility Commission is currently reevaluating their utility vegetation clearing requirements. The Board wants to ensure that any permanent MWS exemption is consistent with any updates to the CPUC regulation. The Board has indicated it will monitor the CPUC action and provide technical information on fire hazard or other information within their expertise to the CPUC as part of the CPUC regulatory updates.

POLICY AND NON REGULATORY REVIEWS IN 2009

1. Review and liaison with the Jackson Advisory Group

Jackson Demonstration State Forest is located in Mendocino County. It is a 45,000 acre State Forest utilized to demonstrate forestry practices, and provide a location for experimentation. The Mission of the Jackson Demonstration State Forest (JDSF) Advisory Group (Advisory Group) is to provide advice/recommendations to The Board of Forestry and Fire Protection (Board) and Director/Department of Forestry and Fire Protection (CAL FIRE) regarding issues relevant to review of the JDSF Management Plan for possible changes during the initial implementation period. It also advises on ongoing implementation issues, and on policy matters relevant to JDSF.

A. During the initial implementation period (not to exceed three years) the Advisory Group shall provide input on the following**:**

1. Desired future forest structure condition goals for the Forest and the forms, amounts, and spatial designation of silvicultural treatments to be applied to attain those goals.
2. Long-term goals for a wide range of forest structures, including but not limited to:
    a. The extent and general location of areas to be dedicated to late seral development and older forest structure, where timber production will be secondary to habitat development.
    b. The extent and general location of areas to be dedicated to old forest structure zones (OFSZs). The OFSZs will maintain or develop key old forest features. The OFSZs will be available for timber harvest.
3. The Management Plan's approach to (a) protecting residual old growth and (b) restricting the extent and conditions under which herbicides may be utilized to control native hardwoods.
4. The process of conducting a recreation users survey, establishing a recreation user group, and developing a new recreation plan for the Forest. This plan would indicate the desired extent and location of recreation areas, corridors, roads, trails, and facilities that will be managed to enhance the full spectrum of appropriate recreational opportunities given JDSF's management goals.
5. The need to modify other elements of the Management Plan, as requested by the Director.

B. On an ongoing basis:

1. Review of ongoing implementation of the Management Plan and overall Forest management.
2. When requested by the Director or Board, provide periodic recommendations on forest management policies and the Management Plan.
3. Review and comment on proposed even-aged harvesting.
4. Provide advice to the Director, CAL FIRE staff, or the Board on other specific issues as determined by the Director, CAL FIRE staff, or the Board.

C. JDSF Advisory Group responsibilities defined in the JDSF Forest Management Plan are hereby incorporated by reference.

D. The JDSF Advisory Group will inform the Demonstration State Forest Advisory Group (DSFAG) on the effectiveness of the implementation of the JDSF Management Plan.

2. <u>Adoption of the Board's and Fish and Game Commission's Joint Policy for Anadromous Salmonids</u>. This Joint Policy made several new findings, among them:

- That forestry practices interact with watershed and riparian processes and can positively or negatively affect upstream and downstream freshwater habitat for salmonids. Properly implemented forestry practices can reduce the risk of catastrophic fires that impact water quality and other habitat elements important to salmonids. Sound forestry practices can help maintain and restore the riparian functions that are linked to salmonid habitats. This Joint Policy encourages positive forest management practices, particularly those associated with roads, unstable areas, and riparian areas, that protect salmonid habitat by: 1) reducing stream temperatures; 2) reducing sediment levels in streams; 3) enhancing composition and abundance of fish species and aquatic macroinvertebrates; 4) stabilizing stream banks and streamside areas; 5) increasing instream structural complexity; 6) increasing large woody debris recruitment; and 7) increasing base flows in streams.

- That strong pressure for parcelization, fragmentation, and land use conversion exist. The loss of forestland to other uses can degrade habitat. The retention and active management of forested lands in a manner compatible with the freshwater life histories of salmonids is vital to maintaining salmonid habitat that is in good condition and to restoring degraded habitat. Retention of viable, working forest landscapes is therefore essential to salmonids.

- That this Joint Policy is intended to focus on the recovery, conservation, preservation, and restoration of salmonid populations and their habitats by the Department of Fish and Game and the Department of Forestry and Fire Protection (departments) utilizing their respective authorities in the implementation of watershed-based forest management actions.

- That adequate staffing and funding are necessary to implement the actions of this Joint Policy. The Commission and the Board, along with their respective departments, will seek appropriate funding for the implementation of the actions identified in this Joint Policy. Given the uncertainty for consistent staffing and funding, efficient regulatory systems must be developed that address environmental protection and overlapping review. Funding priority will be given to programmatic, watershed-scale restoration activities to provide the greatest benefit to salmonids on forested lands.

3. Board Policy Number 12: Guidance on the Certified Rangeland Manager Program.

The purpose of this policy statement is to clarify those management activities on rangelands that are most appropriately carried out by a Certified Rangeland Manager (CRM). The Professional Foresters Law, Public Resources Code §750, *et seq.* provides for the issuance of *specialty certificates*, "… in such fields of specialization as the Board may by regulation establish" (PRC §762). The only specialty certificate currently provided by Board regulation is that of the Certified Rangeland Manager. This specialty was created in 1995 through the efforts of the California Section of the Society for Range Management with the support of the California Department of Forestry and Fire Protection. In so doing, the California Section, now the California-Pacific Section (Cal-Pac SRM) sought to promote and strengthen professional standards in all activities devoted to rangeland resources. The Cal-Pac SRM professional certification is designed to distinguish and maintain a professional level of rangeland management expertise and provide continuing education and accreditation services to the profession.

The CRM Program provides for professional and ethical standards of performance, and establishes a mechanism for reviewing charges of professional misconduct with associated disciplinary guidelines. The Board of Forestry and Fire Protection, through its Professional Foresters Examining Committee (PFEC), provides administrative oversight and annual review of the Society's program to insure compliance with State-mandated requirements to fully protect the public's interest.

A Certified Rangeland Manager applies scientific principles to the art and science of managing rangelands. Rangelands are lands supporting grass, shrub, and savanna vegetation types pursuant to the Cal-Pac SRM *Program for Certification of Professional Rangeland Managers* (14 CCR §1651(c)). This program of certification is a service provided by Cal-Pac SRM as a means for demonstrating and supporting the special expertise required to practice as a Certified Rangeland Manager. Pursuant to 14 CCR §1651(a), a CRM shall perform professional services only in those subjects in which he or she is competent by training and experience.

The CRM license is required for professional practice of rangeland management on non-federal forested landscapes as a specialty authorized under a modification of the Professional Foresters Licensing Act (AB1903) that requires the Registered Professional Forester license for the practice of forestry. The CRM license recognizes expertise that is desirable, and recommended for all rangeland management activities, but it is not legally required unless the activity occurs on forested landscapes.

4. PTEIR Guidance Document Review.

The purpose of this document is to provide general guidance to the developers, as well as the reviewers, of Program Timberland Environmental Impact Reports (PTEIRs) and Program Timberland Harvesting Plans (PTHPs) relative to:

- the relationship between PTEIRs, as described in the Forest Practice Rules (FPRs), and program Environmental Impact Reports (EIRs), as described in the California Environmental Quality Act (CEQA);

- the linkage between the PTEIR and the PTHP;
- compliance with the Forest Practice Act (FPA), the FPRs and CEQA when preparing PTEIRs and PTHPs;
- approaches to addressing "alternate standards" in a PTEIR;
- California Department of Forestry and Fire Protection's (CAL FIRE) roles and responsibilities in reviewing and approving PTEIRs and PTHPs.

This document provides supplemental information to assist in the development and review of PTEIRs and PTHPs. Where conflicts or omissions exist, the reader must rely on the FPA, FPRs and CEQA.

CEQA, Programmatic EIRs and Program Timberland EIRs

In approving projects, public agencies typically rely on the project specific analyses and mitigation measures found in the environmental document for each individual project. However, when a public agency is considering the approval of numerous, similar projects, the project-by-project analysis and mitigation measure development can become repetitive and inefficient. In addition, the cumulative effects associated with similar projects approved over time can often be overlooked in a project-by-project approach. The CEQA Guidelines provide the opportunity for public agencies to prepare program EIRs (CCR[1] § 15168) that analyze programmatically the potential impacts of a series of actions that can be characterized as one large, ongoing project. Program EIRs are frequently prepared for development projects with multiple phases (i.e., subdivision developments), ongoing programs (i.e., CAL FIRE's Vegetation Management Program) or implementing long-term management plans (i.e., State Forest Management Plans). Individual projects that are similar due to actions taken, location, and/or timing and having similar potential impacts that can be mitigated in similar ways, may be evaluated collectively in a program EIR thereby eliminating the need for repetitive review. Due to the broad program scope and early consideration of project impacts, program EIRs allow for a more comprehensive consideration of the cumulative effects that could arise from a series of actions than would be possible if analyzed on a project-by-project basis. This is particularly the case where the specific elements of a future project may not be apparent to the plan developer at the time of analysis. In anticipating the specific impacts that may arise on individual future projects and developing mitigations to be applied that avoid or lessen those impacts to a level of less than significant, a well crafted program EIR can mitigate project effects both individually and cumulatively. By developing and approving program EIRs, both project proponents and permitting agencies can realize substantial time and cost savings over the traditional project-by-project approach. In addition, the project proponent achieves a degree of regulatory certainty over future project approvals, having already obtained public agency determination of the adequacy of the program EIR in addressing project effects.

CEQA also encourages the practice of "tiering" environmental analysis where possible to reduce redundancy. Typically the review of a proposed action, or series of actions, can be evaluated in a general way under a program EIR. Subsequent, individual actions can

[1] CCR refers to Title 14 of the California Code of Regulations and includes the CEQA Guidelines adopted by the Natural Resources Agency and the FPRs adopted by the Board of Forestry and Fire Protection (Board).

then rely on the analysis in the program EIR and provide additional analysis for those site-specific activities or situations not addressed programmatically.

In 1996, the Board of Forestry and Fire Protection (Board) adopted rules (CCR § 1092 et. seq.) that provided for the programmatic review and tiering of timber harvesting activities. The rules authorized the Director to approve PTHPs where a PTEIR had been certified for the ownership (or multiple ownerships). The PTEIR, certified by the Director, provides the programmatic impacts analysis and justification of mitigation measures relied upon in each subsequent PTHP. PTHPs undergo a more limited and expedited review and approval process, tiering to the analysis and mitigations found in the PTEIR, as compared with the review of a typical Timber Harvesting Plan (THP).

Current Application of PTEIRs

PTEIRs and PTHPs were originally envisioned as a means to efficiently comply with the environmental analysis required under the Forest Practice Act, primarily for timber management purposes. However, with recent increased interest in forest fuels management, it appeared that PTEIRs would be a cost effective means to remove commercial species over multiple ownerships while achieving fuels management objectives. In addition, some landowners have considered PTEIR development in conjunction with other landscape level planning efforts such as Habitat Conservation Plans (HCPs) or Natural Communities Conservation Plans (NCCPs). It is conceivable that PTEIRs could be developed to achieve other management purposes as well, including but not limited to the management of conservation easements, recreation facility maintenance, local public land management and wildlife specific management.

5. <u>Review of Board policies for conversion.</u>

The Board has had an ongoing review of its regulations and policies regarding conversion. There is increasing pressure for timberland owners to find economically attractive uses for their property. Timber management has become less profitable for a number of reasons and landowners often see increasing opportunities to develop rural subdivisions or establish vineyards. There has been a substantial increase in timberland owners seeking to rezone Timberland Production Zone (TPZ) timberlands in order to increase their future management options. This is largely being accomplished through the ten-year-roll-out process wherein, local government's rezone approval to a new zoning class does not become effective for ten years and a Timberland Conversion Permit (TCP) is not required. Generally, the new zoning class's restrictions are similar to TPZ and permit timber management; however, such timberlands may be rezoned again, without Board or CAL FIRE approval, to allow uses that are in conflict with timber management.

Added to this is the recent requirement to address the effects of project approvals on climate change under CEQA. The changes in land use that occur following: the Department's approval of a TCP; local government's approval of a forest subdivision or parcel map; or a Board of Supervisor's approval of a TPZ rollout, must be considered in light of both the increases in greenhouse gas emissions that may occur and the lost opportunity to sequester carbon through forest management.

6. Range Management Advisory Committee's white paper entitled, "State Owned Lands: A Discussion of their Acquisition and Recommendations for Sustaining Natural Resource Values."

Lands are often purchased by or granted to the State for their significant resource values. Oftentimes, these values are rangelands or forested lands that have been actively managed for decades, if not even a century. These lands have much value to the taxpayers in the state for the public benefit they provide in watershed, wildlife and economic resources. When acquisition occurs by the State, what is missing from the equation is the management those lands have benefited from. It is critical to understand that the desired future condition will change in a negative manner in most instances when management is removed from the land.

It is essential to retaining conservation values, public safety, and State owned investments that California develops a plan to properly manage public lands. As stated above this plan may emphasize partnerships formed at the local level, or originate from a statewide strategic plan. Recommendations for the Board's consideration are as follows:

1. The Resources Agency should take the lead on the development of a strategic plan for the acquisition of fee title, conservation easements, or management of State lands currently held or under consideration.

2. California needs a State-wide policy requiring local resource management plans for all state-owned natural resource lands. The policy should include adequate funds for planning and plan implementation in a timely manner.

3. All of these recommendations should be incorporated into a strategic management plan for State owned and managed lands that communicate to the legislature the scope, need, and depth of the problem. The plan should be an organizational document for the acquisition of natural resources lands.

4. The State of California should consider denying acquisition or control of any further natural resources land without an accompanying adequate source of funds for management of the lands in perpetuity. Funding for maintenance should be clearly identified. This recommendation is supported by a statement made by California Department of Fish and Game Director Donald Koch, "With slightly more than a million acres, DFG is already stretched to the max; the acquisition of private property is something that we don't need to explore."

5. The State should prioritize and justify acceptance and acquisition of natural resource land based on its resource values. The State should only accept lands where the resource values are most likely to be maintained or enhanced.

6. Moved to # 2Partnerships with local individuals or entities for maintenance and improvement of acquired lands can be a good investment for the State. Funds for management of natural resource lands can come from many sources: fees for use of the land, donors of the land, the State general fund, and the acquisition action. Lease or rental agreements with private enterprise or non-profit organizations should be considered for all State-owned natural resource lands. Leases should be crafted so that natural resource values are protected or

enhanced. Income from the agreements should be used to enhance natural resources.

7. Conservation easements instead of private land acquisitions, with the appropriate management language, may be a less costly and more effective method. California should give higher priority to the use of easements rather than fee title purchase when seeking to protect natural resources. Adequately funded maintenance requirements should be written into all such easements.

8. The State should consider disposition of State-owned natural resources lands whose resource values can not be maintained due to lack of funds or natural causes.

10. The Resources Agency should acquire and organize comprehensive data on State ownership and control of California natural resource lands in a database available and accessible to the public. There should be no new taxes, but rather identification of and dedication of <u>existing</u> funds for management, maintenance and enhancement of natural resource lands.

11. State and Federal law should be revised to allow funds for management and maintenance of acquired lands that have utilized bond funding in their purchase.

7. <u>Monitoring and Tracking Committee.</u>

The Board, through the Monitoring Study Group, spent much of the year reviewing monitoring requirements throughout the State. As a result of that review, the Board is examining the formation of an Effectiveness Monitoring Committee, as outlined below:

Mission of Committee: To advise the Board of Forestry and Fire Protection on how to build a water quality-related monitoring program that could provide an active feedback loop to policymakers, managers, agencies, and the public.

Goal: To ensure a collaborative science-based monitoring effort to credibly evaluate the effectiveness of the Forest Practice Rules related to water quality and plan review process for:

(a) Adaptive management (i.e., monitor actions and adjust management actions accordingly).[2]
(b) Meeting stakeholders' goals.
(c) Improving listed anadromous fish species numbers.
(d) Joint ownership of product.

Objectives:
A. Involve credible representatives of key stakeholders that are publicly trusted.
B. Identify critical research questions to address the goals, using input from all stakeholders.
C. Select priority projects to jointly monitor.
D. Develop effective partnerships to share the costs of evaluation.
E. Provide for social time to develop partnership relationships.
F. Promote joint fact-finding at local, regional, and state levels.

G. Spread awareness of results to partners, decision-makers and the public through:

1. Field tours.
2. Internet availability.
3. Workshops and conferences.
4. Other user-friendly formats.

[1] An adaptive management program should ensure that the BOF bases its regulations for aquatic resources on the best available scientific knowledge and technical information

8. <u>California Fire Plan update.</u>

The Board has spent considerable time over the last year reviewing and updating its Fire Plan with a select Steering committee. It is anticipated that this plan will be finalized in the upcoming year. Below are excerpts from the draft document.

To carry out these responsibilities, the Board engages in a strategic planning process which defines and communicates the Board's guiding values and priorities, directing resources to the most important issues. It also defines both the Board's and the Department's vision, and how performance is to be measured and reported. One element of this planning process is the development of the Strategic Fire Plan, which forms the basis for assessing California's complex and dynamic natural and man-made environment, and identifies a variety of actions to minimize the negative effects of wildland fire.

Working closely with the Board and the Department, the Fire Plan Steering Committee developed the goals and objectives found in this Strategic Fire Plan. The concepts were provided to affected stakeholders, whose input is reflected in this final document.

With the adoption of the Strategic Fire Plan, CAL FIRE will develop work plans to achieve the identified goals. In addition, the objectives outlined for each goal will receive further refinement and development. Objectives may be modified, added or deleted depending upon a number of parameters, including funding, staffing and the effectiveness of the outcome of the individual objective.

Finally, to assure accountability, it will be necessary to conduct periodic evaluations. These evaluations will serve two purposes:

- Demonstrate what the Board and Department have been able to accomplish toward attainment of their goals

- Allow for the public to provide input on the direction of the Board and Department.

<u>VISION</u>

A natural environment that is more resilient and man-made assets which are more resistant to the occurrence and effects of wildland fire through local, state, federal and private partnerships.

GOALS

Through government and community collaboration, the following goals are identified to enhance the protection of lives, property and natural resources from wildland fire, as well as improve environmental resilience to wildland fire. Community protection includes promoting the safety of the public and emergency responders as well as protection of property and other improvements.

1. Identify and evaluate wildland fire hazards and the associated values and assets at risk. Facilitate the sharing of all analyses and data collections across all ownerships for consistency in type and kind.
2. Articulate and promote the concept of land use planning as it relates to fire risk and individual landowner objectives and responsibilities.
3. Support and participate in the collaborative development and implementation of wildland fire protection plans and other local, county and regional plans that address fire protection and landowner objectives.
4. Increase awareness, knowledge and actions implemented by individuals and communities to reduce human loss and property damage from wildland fires, such as defensible space, fire prevention and fire safe building standards.
5. Develop a method for integration of fire and fuels management practices with landowner priorities and multiple jurisdictional goals within local, state and federal responsibility areas.
6. Determine the level of fire suppression resources for the adequate protection of the values and assets at risk.
7. Address post-fire responsibilities for natural resource recovery including watershed protection, reforestation, and ecosystem restoration.

The Department of Forestry and Fire Protection (CAL FIRE) shall develop two-year work plans to identify the specific actions to be taken to address each of the goals identified and the related objectives provided herein. These work plans will be used as a framework to provide feedback to the Board of Forestry and Fire Protection (Board) on a periodic basis.

9. IFWG (Interagency Forestry Working Group

The Board, with CNRA, has established an Interagency Forestry Working Group on Climate Change (IFWG) to:

A. Utilize the Air Resources Board's AB 32 Scoping Plan forest related chapters (in particular, Section 16 and Appendix C), the Board's October 2008 "REPORT TO ARB ON MEETING AB 32 TARGETS", and the State's Climate Adaptation Strategy as the foundation for developing the Board's Climate Change mitigation and adaptation Work plan to achieve and surpass the 5 million metric ton CO2 reduction goal outlined in the forestry sector by 2020 in ARB's Scoping Plan;

B. Advise the Board on climate change-related research and policy needs, priorities and such other matters as the Board directs or as identified by consensus from the IFWG;

C. Provide science-based recommendations and technical information to advise and assist the Board in making its determinations on climate policy and regulations;

D. Assist the Board in identifying strategies to link climate change and energy policies with forestry mitigation and adaptation policies across state agencies, especially within programs led by entities on IFWG;

E. Coordinate with the Board's Research and Science Committee on its mission to provide support to the Board to advance the science needed to support adaptive management, and to identify research needs.

While the California Air Resources Board (ARB) is ultimately responsible for achieving the reductions, the California Board of Forestry and Fire Protection (the Board) has the authority – and expertise – to develop, revise and implement regulations and programs to assure that the forest sector target is met. The Board believes that the 5 MMT target can be met, and surpassed, through a combination of regulatory, statutory and incentive-based approaches. These approaches include:

- Improvement of forest inventory and monitoring to ensure changes will be detected.
- Consideration of additional statutory and regulatory needs, including a review of the effects of existing regulations on carbon sequestration.
- Working with Federal agencies to maintain and increase sequestration levels by: 1) preventing losses of inventory and growth rates; 2) continuing reforestation efforts; and 3) fuels management treatments on federal lands to reduce the risk of catastrophic wildfire.
- Reducing barriers and providing additional incentives to encourage voluntary action by private landowners to increase inventory and growth rates while decreasing risk of losses.
- Developing sound policies and regulations for CALFIRE that will contribute to reduction of the risk of catastrophic wildfire.
- Encouraging research related to climate change impacts for the Forestry Sector.
- Working with other agencies and legislative authorities to ensure development of policies, infrastructure and funding to support fuels reduction and biomass utilization.

The Board is mandated to maintain a vigorous, resilient and healthy forest land base in California, which supports the ecological needs of the forest ecosystem and its human dependencies. The Board recognizes the importance of the sequestration potential for forests and their benefits in achieving GHG emission reduction targets. At the same time the Board acknowledges that these needs must be considered in conjunction with the many other ecological and human benefits that forests provide and for which the Board has responsibility in this State.

IFWG is utilizing subcommittees organized around the themes listed below to achieve progrees:

1. Develop and fund activities to reduce the uncertainty in existing State GHG inventory data related to all forests and rangelands including urban forests, and increase the State's capacity to collect, manage and create projections with this information over the long-term including an assessment of the impacts from

climate change on forest lands. ARB and CALFIRE staff would take a lead in developing a workshop on this topic by October 2009 and provide clear recommendations for considerations by IFWG to approve or alter by the end of 2009.

2. Determine the effect of the State's existing forest and rangeland regulations (i.e., Sustained Yield Plans, Non Timber Management Plans, etc.) on meeting the state's GHG goals, whether simple adjustments are needed, or whether more significant action is needed. This would be an independent review of existing regulations that would be presented to IFWG by November 2009 to consider potential recommendations to strengthen, clarify, or highlight existing rules. Funding will likely be necessary to implement this effort.

3. Define sustainable woody biomass utilization for the Low Carbon Fuel Standard being developed by ARB and CEC, and assist in developing and/or identifying a project that could be funded with AB 118 funding in cooperation with CEC. ARB and CEC would co-lead a working group that would provide recommendations to IFWG on definitions and projects to be considered by IFWG.

4. Identify, develop, and promote clear incentives to assist private and public landowners to maintain and increase forest carbon stocks on their lands. This would include linking disparate efforts such as reducing wildfire risks, carbon offsets, biomass utilization, funding for conservation easements, direct state funding, or regulation changes. This topic is moving forward rapidly, and is targeting a final report by year's end.

5. Promote public awareness and education about the role of the forestry sector in climate change efforts.

10. Review of County and City General Plan Safety Elements for 2009

The Board reviewed the following listed General Plan Safety Elements:

Index of Board of Forestry and Fire Protection
General Plan Safety Element Review Pursuant to GC 65302.5, 2009

	Entity
45	Kings County
46	City of Torrance
47	City of Lancaster
48	City of Ione
49	Tuolumne County
50	City of Fremont
51	City of San Carlos
52	Santa Cruz
53	City of Santa Rosa
54	Agoura Hills
55	Amador County
56	City of South Lake Tahoe
57	Grand Torrance
58	Beverly Hills

PRIORITY ISSUES FOR 2010

1. **California Fire Plan:**

   Complete/Publish Review of 1996 Fire Plan, Initiate Update of CA Fire Plan: *Review published, summer 2008. FPSC formed, update begun, target 2010 adoption. Public review draft being finalized.* Information to be evaluated: *Federal Fire Policy review and coordination, Cooperative Fire Review (§4141 et seq.), Unit Fire Plans, Community Wildfire Protection Plans, Contract County review, Blue Book (Staffing) Review, Climate change issues*

   .

2. **Climate Policy:** Board submitted Strategic Plan to ARB for AB 32 scoping, formation of Climate Change Committee underway. ***1. IFWG formed and currently meeting. Furloughs have impeded progress. 2. Committee reviewing CEQA/GHG issues. 3. Committee reviewing mitigations, official responses.***

   Greenhouse Gas-Related Cumulative Effects Analysis
   Passage of Senate Bill 97 in 2007 resulted in changes to the California Environmental Quality Act (CEQA) Statute and Guidelines pertaining to the potential impacts associated with greenhouse gas emissions and the need to address such impacts in plans. The department has required qualitative and quantitative evaluations of carbon emissions and sequestration on a project-by-project basis.

3. **Regulatory amendments for permanent T/I rules:** Road rules: Consideration of regulatory recommendations made by the interagency road rules committee in October 2007. Development of pilot programs for SERM projects.

4. **SRA 5 year review, balancing of DPA** *Review to begin in 2010. Should consider SRA guidelines concurrently.*

5. **Water Quality joint policy statement**: Staff has begun working on a "strawman" for discussion. ***EO and Chair met with senior management at WQ to discuss process for integrating review and joint policy. Further discussions on hold pending CAL FIRE appeal of NCWQCB waiver order.*** *Monitor Federal waiver discussions for application to possible State process.*

6. **Research Program Review, Research and Science Committee:** *Program review completed and published; charter for RSC approved. Implementation on hold pending resources.*
   Monitoring Study Group: *Formation of an Effectiveness Monitoring Committee (EMC) to assist in pilot projects for ASP rules, and an adaptive management process.*

7. **Safety Element Review (all counties, cities with VHFHSZ):** *Review is ongoing issue, though it seems that fewer counties are submitting. Need to revisit this in light of the Fire Plan. 2010 mandatory reviews begin(San Diego area), reviews should consider 1270 compliance monitoring concurrently (review all counties for current standards, i.e., meet or exceed requirements).*

8. **Local County ordinance certification of Title 14 CCR 1270 Regulations (Fire Safe), PRC 4290/4291:** *Staff has begun review of statutes and regulations pertaining to fire safe regulations. Comprehensive review in 2010.*

9. **Non-Industrial Timber Management Plan (NTMP) Review: Ongoing review of issues.** Department Draft NTMP Growth and Yield Guidelines document posted on Department website—currently in use by Department plan review personnel. Review Guidelines, February 2010.

10. **(D09 #12)Modified THP for fuel reduction:** The Board could make changes to increase the utility of an MTHP, e.g., expanding the allowable acreage, limiting the application to small timberland owners and modifying certain limitations, or, as is currently being considered, focus a category of MTHPs on fuels reduction. Phase 7. Stakeholder input. Discussion of monitoring, photo points.

11. **Board/State Policy Statement- refinement of metrics.** Begin planning for 2010 Assessment: EO meeting with FRAP and Resource management to determine work loads and personnel availability. ***Assessment process underway.***

12. **Conversion Process Review:** a) Increased litigation and controversy over timberland conversions b) Complications with concurrent review of TCPs and THPs c) Conversion of timberland occurs without Department notice and review d)The complexity and workload have increased substantially e) Confusion over lead agency role on conversions f) Standard mitigations for loss of timberland (Process review to continue in 2010). ***Ongoing.***

13. **Regulatory amendments to Fire Inspection and Civil Penalty regulations in FPRs:** *Issue was remanded back to committee and Dept. for further development.*

Demonstration State Forests Management:

14. **Jackson (Liaison to JAG):** Nearing end of interim period; will need to consider revisions to management by end of 2010.

15. **Mountain Home:** Updated Management Plan under development. Review to occur in 2010. Initial Study being reviewed, possible mitigated negative declaration. Target for completion is mid year.

16. **Soquel:** Updated Management Plan under development. Review to begin by mid 2010.

APPENDICES

Appendix A, Strategies identified by the Board

1. BIOLOGICAL DIVERSITY

Goal:

Contribute to the preservation, conservation, and maintenance of wildlife and native plant resources, so that the beneficial uses of those resources, both intrinsic and ecological, are available to the citizens of the State.

Objectives:

1. **Reduce forest and rangeland plant community structure gaps to enhance fish, wildlife, and native plant habitats**

2. **Where achievable as a result of forest and rangeland management, reduce declines in native species**

3. **Ensure sustainability of species and natural communities found on forests and rangelands**

Strategies:

Actions for forest or rangeland habitat structure gaps

A. Provide incentives for creation of diverse habitat.

B. Strengthen analysis of cumulative impacts of land uses on terrestrial and aquatic habitat.

C. Improve mapping and monitoring technologies and systems.

D. Strengthen collaboration between regulatory agencies, the public, and the industry in addressing fish, wildlife, and native plant habitat concerns.

E. Use long-term plans for larger scale analysis and monitoring schemes.

F. Expand and focus use of conservation easements and incentives.

G. Develop focused research program on State Forests for fish, wildlife, and native plant habitat.

Policy options for decline in some native species

H. Continue to develop HCPs, NCCPs, or other long-term plans that provide for landscape level analysis, protection, and resource use.

I. Develop additional reimbursement mechanisms that preserve habitat.

Policy options for using all landscapes to meet forest and rangeland habitat conservation objectives

J. Recognize the continuing importance of ecosystem services from the Working landscape and support innovations in approaches.

K. Develop an incentive based program for conservation and/or creation of habitat

2. PRODUCTIVE CAPACITY

Goal:

Encourage prudent and responsible forest resource and rangeland management to serve the public's need for timber and other forest products, while giving consideration to the public's need for watershed protection, fisheries and wildlife, and recreational opportunities in this and future generations.

Objectives:

1. **Create the necessary environment for a sustainable forest and rangeland products sector for California.**

2. **Protect and enhance the forest and rangeland resource base.**

3. **Reduce dependency on the importation of timber products.**

Strategies:

A. Consider alternative land trust arrangements to retain the productive capacity of forests and rangelands and prevent either conversion to non-timber and range uses or full administrative/regulatory exclusion from timber or range management.

B. Increase active management in forest stands at highest risk of loss to fire or insect outbreak due to increased stocking levels. Prioritization of management activities can coincide with meeting other objectives such as fire reduction near urban areas or adaptation of stands to meet biological diversity needs.

C. Promote retention and improvement of the forestland base and long-term forest investments by landowners through land-use and tax programs, performance-based regulations, forest products market development, and applicable incentives.

D. Promote retention and improvement of the rangeland base and long-term investments in rangeland by landowners through land-use and tax programs, performance-based regulations, development of markets for livestock and relate products, creation of specialty and alternative products, and incentives

E. Different owners have different objectives for land ownership with different emphases on conservation, commodity production, multiple use, and residential

values. A policy framework that recognizes that the management of these different ownerships can provide a suite of benefits which collectively will meet California's environmental, economic, and social needs.

F. Encourage the federal government land management agencies to achieve their objectives by actively managing federal forestlands, including the use of commercial timber harvests where appropriate.

G. Support proper management to protect and enhance the multiple values of California's urban and community forests and forests in the wildland/urban interface.

H. Improve range management techniques to enhance range productivity

I. Encourage forest landowners to manage their forests in a manner that ensures long-term wood volume growth in California equals or exceeds rates of timber harvest and mortality across all ownerships.

J. Support for continued assessments and research on the capability of California's forests to produce timber, non-wood forest products, recreation, water, fish and wildlife habitat, and other forest values.

Land Development

K. Maintain tax-related zoning, encourage county governments to support timber production through Timber Production Zoning.

L. Support livestock and other range-based enterprises by preserve high quality rangeland through the Williamson Act or other local zoning

M. Focus part of local general plans and related project design on integration and protection of productive areas.

N. Increase use of easements and land banks.

O. Anticipate growth areas and focus them away from the most productive forests and rangelands.

3. FOREST AND RANGE ECOSYSTEM HEALTH

Goal:

Protect, maintain, and enhance the health of California's forest and rangeland ecosystems within the context of natural disturbance and active management.

Objectives:

1. **Reduce the occurrence of catastrophic wildfires and reduce life, property and natural resource losses through the implementation of effective and efficient fire prevention, fire protection planning and suppression, financial management, and firefighter/public safety strategies.**

2. **Improve the natural resiliency of forests and rangelands**

3. **Reduce the occurrence of catastrophic mortality to pest and disease outbreaks**

4. **Reduce and control non-native invasive species**

5. **Reduce impacts related to poor air quality**

Strategies:

Planning

A. Complete a comprehensive review of the Board's Fire Plan and revise as necessary. Fully develop and implement Board/CDF Unit Fire Plans that focus fire protection hazard reduction strategies based on level of hazard and assets at risk. Review Department Strategic plan, Department annual work plans, Community Wildfire Protection Plans, National Fire Plan, Unit/County Fire plans, Fire Safe Councils and Local Hazard Mitigation Plans for consistency with Board's Fire Plan.

B. Develop comprehensive fire prevention and land use planning strategies. Strategies should include local entities general plan reviews, relationships to local fire plans, and wildfire hazard mapping.

C. Develop monitoring and reporting systems for legislative reporting requirements.

Urban Forestry Land Management Activities

D. Maintain support for urban forestry and stream restoration programs.

E. Enhance cooperation between agencies and groups with an interest in metropolitan forests.

F. Retain strong fuel reduction, fire protection, and pest control programs. Streamline environmental review processes related to fuel reduction.

G. Improve reporting of activities, such as acquisition of open space, to a statewide database.

H. Enhance curriculum focus on metropolitan forest issues in forestry schools.

Pests and Disease

I. Continue strong support for focused management practices, such as fuel reduction and control of exotics and pests.

J. Maintain and improve early detection capability.

K. Develop overall plan to guide forest and rangeland pest research and control, including public involvement.

L. Expand research on control methods.

M. Maintain California Department of Food and Agriculture quarantine capacity.

N. Enhance support for County Agricultural Commissioners, University of California researchers, and landowner participation.

Exotic and Invasive Species

O. Strengthen support for California Department of Food and Agriculture program on prevention, eradication, and education.

P. Focus on the development of control methods, both chemical and non-chemical.

Q. Enhance support for county Agricultural Commissioners, University of California researchers, and landowner participation.

R. Promote efficient and effective control programs and strategies characterized by efforts that prevent invasions and quickly detect new occurrences so that the species may be removed or contained before spreading.

Air Pollution

S. Continue to work with California Air Resource Boards and local Air Pollution Control Districts to address concerns over use of prescribed fire and particulate matter from forest and rangeland management activities.

T. Maintain periodic assessments of impacts of ozone and other pollutants on forest and rangeland vegetation and aquatic resources.

U. Develop improved modeling of air quality impacts of wild and prescribed fire.

V. Promote development of fuel reduction and forest management alternatives that minimize use of fire and production of air contaminants.

Wildfire Strategies

Fire Prevention

W. Implement defensible space strategies pursuant to PRC 4290, 4291 and the parallel Government codes for non SRA. Develop defensible space regulatory effectiveness/compliance monitoring/reporting program. Develop strategies to address hazardous fire protection situation in established neighborhoods/WUI areas that have substandard protection characteristics.

X. Review and fully implement CDF Resource Management and Fire Protection vegetation management programs. Work with various regulatory agencies that affect vegetation management related hazard reduction (e.g. air quality, water quality, wildlife habitat, etc.) to accomplish vegetation management goals while meeting other agency mandates.

Y. Develop public education programs that continue to address fire protection responsibilities and increase public understanding of changes to forest health with human action or inaction.

Z. Expand and support the biomass industry as a tool for reducing hazardous fuels in including ensuring sustainable long term fuel supplies from federal lands, and research for utilization of small logs, urban green waste, and biofuels.

AA. Review and revise as necessary wildfire design and engineering standards that support effective wildfire protection for areas where occupied properties interface with wildland areas.

Fire Protection and Suppression

BB. Determine and establish a fire suppression level of service for personnel and equipment consistent with well defined standards and goals.

CC. Determine and establish capital structure needs to support well defined fire protection.

DD. Determine and establish aviation needs to support well defined fire protection.

EE. Determine appropriate equipment replacements needs to supports levels of service goals and fire fighter safety needs.

Financial Management

FF. Determine through business management, fire planning and protection information systems situations where funding does not match levels of service.

GG. Support funding to correspond to statutory responsibilities and that match the levels of service and performance goals established by the Board.

HH. Develop and implement cooperative agreements among local and federal partners that efficiently meet well defined fire protection standards and goals.

II. Address personnel succession planning and wage/classification disparities.

JJ. Ensure SRA designations are consistently applied and amended as necessary to reflect of State fiscal responsibilities.

KK. Ensure mutual aid programs accurately reflect reciprocal financial cooperation.

LL. Determine the optimal mix of wildfire prevention and suppression levels to minimize fiscal cost and reduce damages.

MM. Develop oversight policies and use of information and planning tools for analysis of cost containment alternatives, staffing, and accountability for state spending.

Firefighter and Public Safety

NN. Ensure all firefighters are trained and equipped to safety conduction efficient and effective operations.

OO. Develop fire safety planning information/incident intelligence to prevent fatalities and serious injures to the firefighters and the public.

PP. Develop interoperable communications needs of fire and emergency personnel.

4. SOIL CONSERVATION AND WATER QUALITY

Goal:

Protect, maintain, and enhance the soil and water resources of the State of California's forest and rangelands.

Objectives:

1. **Control soil erosion to protect resources and forest productivity.**

2. **Protect the beneficial uses of water.**

Strategies:

A. Continue support for watershed assessments using common watershed models and risk assessment capacity, enhancing cooperative mapping and monitoring techniques, and using long-term plans for large scale analysis and monitoring schemes.

B. Continue monitoring, especially to link in-stream conditions to hillslope processes. Incorporate in-stream monitoring technologies to track effectiveness of regulations and restoration efforts, and provide the basis for adaptive management.

C. Increase options for long-term plans (such as Rangeland Water Quality Management Plans) by forest and range landowners and connect plans to eased regulatory process requirements at the plan level.

D. Foster collaboration between regulatory agencies, the general public, and private landowners including integrating Timber Harvest Plan review and rules and Total Maximum Daily Load requirements.

E. Maintain funding and increase landowner incentives for restoration projects and maintain support for urban stream restoration.

F. Use the Demonstration State Forests as a venue for testing and demonstrating watershed assessment approaches and restoration techniques.

G. Conduct focused research on the dynamics of fish populations and their linkages to instream conditions and land uses.

H. Validate forest practice regulations as appropriate water quality protection measures.

5. FORESTS AND CLIMATE

Goal:

Protect, maintain, and enhance the State of California's forestlands to promote a positive impact on the climate.

Objectives:

1. **Promote the contribution of the forested landscape in the reduction of greenhouse gases.**

Strategies:

A. Promote conservation of forest lands and vigorous stands, which can significantly contribute to large-scale air pollution reduction. Maintain healthy forests which are vital to protecting resources from air borne waste impacts and which provide opportunities to contribute to pollution reduction through carbon sequestration.

B. Promote forest health and conserve forest lands from land use changes by providing financial opportunities to land owners who are managing their lands in ways that positively influence carbon storage.

C. Create markets for carbon and other ecosystem services to provide additional funds to landowners.

D. Refine carbon sequestration accounting and carbon trading mechanisms. Encourage systems that recognize all life stages of forests and forest products.

E. Maintain and adjust capacity and flexibility of emergency services related to natural process such as flooding, disease, and wildfire.

F. Develop a contingency plan for ecological impacts of climate change, including seed banks and land trades adjusted to ranges of vegetation types.

G. Encourage counties and local governments to maintain the zoning of former industrial or light industrial production sites while reducing environmental permitting associated with using those sites, within the construct of the applicable zoning, for alternative forest product production purposes such as electrical generation.

H. Identify "biomass management zones" in key forest and range areas of California, based on known resource, contribution to the maintenance of forest health, and reduction in large high-intensity wildfires by December 31, 2007.

I. Along with Department, collaborate in further development of long-term harvest contracts or agreements with the Federal Land Management Agencies with California land holdings, in close coordination with the U. S. Forest Service, Bureau of Land Management, and the Bureau of Indian Affairs.

J. Review and consider regulatory modifications that will further reduce harvesting costs of biomass while maintaining a balance with the protection of associated natural resource values.

6. SOCIO-ECONOMIC WELL BEING

Goal:

Create and maintain conditions under which man and nature can exist in productive harmony to fulfill the social and economic requirements of present and future generations.

Objectives:

1. **Create conditions that allow for a continued and predictable commitment of timberland and investment for growing and harvesting timber.**

2. **Create conditions that allow for a continued and predictable commitment of rangeland and investment for livestock production**

3. **Create conditions that contribute to rural economic vitality.**

Potential Indices:

Strategies:

Policy options for rising consumption and statewide limitations on California commodity output

A. Develop an economic strategy that builds on comparative advantages of California industries vis a vis local and international economies.

B. Promote more aggressive tax policies to favor development of innovative forest and rangeland technologies to meet production and conservation goals.

C. Foster development of markets for new products and services, certification of wood and livestock products, and market mechanisms for carbon sequestration.

D. Broaden remuneration methods to landowners for non-commodity products that complement commodity production.

Policy options for meeting changing demands for recreation and open space

E. Develop a coordinated plan to define needed statewide recreational expansion on forests and rangelands with protection of environment.

F. Promote local community and government efforts to acquire and managed additional open space and recreational lands.

G. Encourage relevant expansion of private land and service capacities.

Policy options for meeting costs of resource protection

H. Develop an overall policy for California resources that integrates approaches to fuel reduction, fire detection and protection, and prevention and control of exotics and pests.

I. Continue to provide wildland fire protection sufficient to protect watersheds, habitat, riparian areas, flood-prone areas, and other factors.

J. Maintain state and federal capacities to respond to pests and public safety threats.

Policy options for incentives for private production of ecosystem services

K. By policy, recognize the overall role of private landowners in producing ecosystem services.

L. Focus on long-term plans and conservation easement conditions that clarify land tenure questions and are approved as alternatives under Forest Practice Rules that reduce compliance costs to landowners.

M. Examine use of systems of environmental management that depends on certified, insured and guaranteed operations rather than a permit with civil enforcement.

N. Develop watershed approaches to permits and restoration activities that reward landowners for attaining socially desired future conditions.

O. Refine trading and credit system for habitat provision, pollution reduction, and carbon sequestration.

Policy options for maintaining large landholdings in resource industries

P. Recognize the continued importance of large scale unfragmented ownerships in the working landscape that are dependent on resource based activities.

Q. Develop analysis of profitability limits at the industry levels and examine if state policies can be improved to assure both private and public benefits of large unfragmented holdings.

R. Maintain tax policies that encourage retention of land ownerships in parcels that are economic to manage.

S. Identify where new regulatory approaches are possible such as the use of environmental certification or long-range plans.

T. Track the levels of management that will be permitted on federal lands and how they relate to overall resource supplies and protection strategies.

U. Strengthen monitoring and adaptive management approaches for individual parcels as well as larger landscapes.

V. Develop strategies to limit litigation costs by focusing on topics of common agreement such as exotics, pests, fuel reduction, and restoration activities.

Policy options for weak economies in local communities

W. At the state level, promote diversification and strengthening of these communities and local economies.

X. Foster community capacity to build restoration and other grants into support for local forest products, range, recreation, and ecosystem service industries.

Y. Continue to leverage existing local watershed groups and Fire Safe Councils.

Z. At the state level, develop additional supports to biomass industry.

AA. Identify, make available, and guarantee fuel supplies from some sections of public lands.

7. GOVERNANCE

Goal:

Create a policy and regulatory system that encourages prudent management to serve the public needs.

Goals:

1. **Encourage the continued productivity of timberlands.**
2. **Provide the public with a regulatory system that is accountable and logical.**
3. **Move the focus of the policy and regulatory system to outcomes, not process.**

Strategies:

Policy options for levels of regulatory oversight and policy integration

A. Conduct an analysis of the impact of overlapping mandates and review processes to create an efficient structure.

B. Connect policies for investment in energy and carbon sequestration to landowner incentives.

C. Strengthen ability to use long term plans and forest certification to meet rules.

D. Examine use of system of environmental management that depends on certified, insured and guaranteed operations rather than a permit with civil enforcement.

E. Provide an annual reporting system on rule effectiveness as a means of providing necessary feedback.

Policy options for conflicts over forest and rangeland management practices

F. Focus on achieving agreement on desired landscape goals and then address potential practices and conflicts.

G. Evaluate performance based rules structures to replace existing prescriptive standards as a means to encourage innovative approaches to resource management.

H. Learn from experiences of The Nature Conservancy, other non-profits, and regional parks on how to explain management needs.

I. Review role of environmental certification in providing for broader acceptance of management tools.

J. Provide for public input into decision making and monitoring.

K. Strengthen skills of resource professionals regarding public involvement and values.

L. Continue strong support for focused management practices, such as fuel reduction and control of exotics and pests.

Policy options for coordination in research and information sharing

M. Develop overall forest and rangeland research plan for California.

N. Increase use of web-based portals for public access.

O. Maintain the forest and rangeland extension functions at University of California and applied programs at California State University.

P. Continue to hold research symposia to share results.

Q. Increase foundation support for research.

R. Develop and support a science review team that will provide the Board with timely review of existing rules, and, where appropriate, recommendations for modification of rules and evaluation procedures.

Policy options for standardized, comprehensive information systems

S. Develop and maintain a system of recording easement boundaries and purposes in a central database.

T. Continue to develop interagency agreements that set standards for information sharing and use

Appendix B, DESCRIPTION OF BOARD POWERS AND RESPONSIBILITIES

GENERAL POWERS AND RESPONSIBILITIES

Included within the function of the Board of Forestry is the power and responsibility to:

A. Determine, establish, and maintain an adequate forest policy for the State;

B. Represent the State's interest in Federal land matters pertaining to forestry;

C. Protect the State's interest in forest resources on private lands;

D. Represent the State's interest in the acquisition and management of State forests;

E. Formulate guidance policies of the Department;

F. Annually determine the need for forest management research and recommend needed projects to the Governor and Legislature;

G. Provide for a statewide program of research in the technical aspects of forest management which may be delegated to it by law;

H. The Board may investigate and report on any technical factors involved in forest management;

I. The Board may prepare and implement a forest management information storage and retrieval program relating to forest conditions to assist in the formulation of policy;

J. Implement a public information program on matters involving forest management and maintain an information file on forest management research.

PROFESSIONAL FORESTERS

By Regulation the Board may adopt rules for carrying out its duties to examine and license professional foresters. These duties and functions include:

A. Regular consideration at regular meetings of matters pertaining to professional foresters;

B. Keeps records pertaining to professional forester registration;

C. Provide for the issuance of certificates of specialization;

D. Establish an examining committee;

E. Receive appeals from examining committee actions;

F. Require adequate demonstration of experience and knowledge necessary for certification as a professional forester;

G. Conduct investigations, if needed, of professional foresters and, if necessary, take disciplinary action.

PREVENTION AND CONTROL OF FOREST FIRES

Responsibilities of the Board in relation to the prevention and control of forest fires include:

A. Make and enforce such regulations as are necessary for the organization, maintenance, government, and direction of the fire protective system;

B. Review and determine approval of a fire plan prepared by the Department;

C. Provide guidance policy and standards for the Department in carrying out this function;

D. Designate lands for which the State assumes financial responsibility (SRA);

E. Prepare a plan for statewide fire protection of SRA;

F. Evaluate the Safety element of County general plans;

G. Establishes the criteria and policies by which the director may enter into cooperative agreements and counties may assume responsibility for SRA;

H. Determines whether intensities of fire protection shall be reduced or withdrawn;

I. Formulation of standards of what fire conditions constitute a hazard;

J. Designate hazardous fire areas.

K. Adopt regulations establishing standards to be used in determining the State's share of costs for site preparation and prescribed burning under the program;

L. Annually adopt a schedule of the prevailing costs to perform work eligible for cost sharing payments.

Z'BERG-NEJEDLY FOREST PRACTICE ACT

The intent of the Forest Practice Act is to create a comprehensive and effective system of regulations of use of timberlands to ensure productivity, sustained yield, and due consideration of watershed, recreation, wildlife, range, aesthetic, and fishery values. In relation to this intent, the Board's duties include:

A. The division of the State into not less than three forest districts;

B. Appoint a District Technical Advisory Committee for each district;

C. In accordance with Section 4551.5 and 4552 of the Public Resources Code, develop and adopt forest practice rules for each forest district;

D. In consultation with District Technical Advisory Committee, continuously review and revise forest practice rules;

E. Hold public hearings for the adoption or revision of forest practice rules;

F. Conduct investigations of problems associated with soil erosion for the purpose of developing soil resource conservation standards. Reports will be published and a determination made, if possible, of permissible levels of soil loss. The Board must promulgate soil erosion control regulations for each forest district;

G. The Board must adopt rules for control of timber operations which will result or threaten to result in unreasonable effects on the beneficial uses of the waters of the State;

H. Issue licenses for the conduct of timber operations;

I. Deny issuance of licenses for causes specified in Section 4572 of the Public Resources Code;

J. In a public hearing, review for conformance timber harvest plans that have been appealed as the result of denial by the Director for lack of conformance with the regulations of the Board or the Forest Practice Act;

K. Determine approval for a sampling procedure for measuring of stocking;

L. Define emergencies for the purpose of emergency notice to harvest;

M. May request the Attorney General to enforce compliance with the Forest Practice Act;

N. Hold hearings, if requested, to determine the applicability of particular notices to take corrective action;

O. Defines and reviews civil penalties;

P. Prescribe procedure for form, content, and fees of conversion applications and, in other ways, regulate conversions.

STATE FORESTS

Board powers and duties regarding State forests include:

A. Determine approval of Department of Forestry forest management plans in State forests;

B. Determine policies by which the Director administers State Forests;

C. Approves regulations for management

D. Enters into agreements with Department of Corrections and the Youth Authority for employment of inmates;

E. Recommend and promulgate resolutions for acquisition of State forest properties if it is deemed appropriate;

F. Determine approval of State forest land sales due to unsuitability for forest purposes;

G. Establish rules for the preservation, protection, and use of State forests.

PROTECTION OF FORESTS AND LANDS

Board powers and responsibilities include:

A. Develop policy in relation to cooperative agreements for insect and disease control;

B. Determine approval of nursery prices;

C. Recommend and, if necessary, set conditions for accepting gifts of land for the State Forest System;

D. Determine policy for insect and plant disease control, declare and dissolve zones of infestation.

FOREST RESOURCE ASSESSMENT

Under the Forest Resources Assessment and Policy Act of 1977 (Section 4789 et seq. of the Public Resource Code), the Board is required to create policy to assist the Director in preparing an assessment of forest resources in California.

Included within the Board policy are policies concerning:

A. Forest resource protection; including protection from fire, insects, and conversion to nonforest use;

B. Resource enhancement; including policies to increase resources in the areas of timber, watershed, wildlife habitat, recreation, range, and energy;

C. Research and information; including research in forest management and environmental protection;

D. Public understanding; including dissemination of information on forest problems and the establishment of public education programs.

PROTECTION AND DEVELOPMENT CORPORATION

Board powers and responsibilities include:

A. Determine, approve, and establish regulations concerning the conduct of corporations involved in the cutting of timber or other work on forest lands;

B. Not more than two months apart, the Board must regularly examine the operations of such corporations to determine if the forest management plan is being followed;

C. Make Department reports in regards to these corporations available to the Legislature.

FOREST IMPROVEMENT PROGRAM

Board powers and responsibilities include:

A. Review and approve regulations concerning the California Forest Improvement Program as specified in Section 4799.02 of the public Resources Code;

B. Review and approve schedules specifying the percentage of costs to be borne by the Department for forest improvement projects;

C. Every fiscal year, review and approve a schedule of the prevailing costs of performing practices eligible under the program.

URBAN FORESTRY PROGRAM

Board powers and responsibilities include:

A. Promulgate guidelines and procedures to implement the California Urban Forestry act of 1978;

B. Determine by regulation what type of practices may be financed by urban forestry grant projects;

C. Determine by regulation which local agencies or groups may be eligible to participate in the program.

CALIFORNIA FOREST LEGACY PROGRAM

Board powers and responsibilities include:

A. Adopts rules for the criteria for easements.

PLANNING AND LAND USE

Board powers and responsibilities include:

A. Reviews safety element of city and county general plans.

CLIMATE REGISTRY

Board powers and responsibilities include:

A. With the Department, coordinates with the registry to provide referrals.

TIMBERLAND PRODUCTIVITY

Board powers and responsibilities include:

A. Provides final approval for re-zoning TPZ lands