

3 Forest Resources

This chapter describes Humboldt County's forest resources, with an emphasis on timberlands and production. The first two sections establish the context by describing the resources and trends in timberland conversion. Then, the regulatory framework is described; the final section addresses the policy framework and options that respond to issues related to forest resources. Planning Division Staff will be supplementing this report with more detailed information on forest resources in Humboldt County prior to conducting a policy discussion workshop on Forest Resources. The information contained in this report was used primarily for the constraints mapping in Chapter 14.

3.1 FORESTED AREAS AND TIMBERLANDS

There are 1.9 million acres of forested land in Humboldt County, covering more than 80 percent of the county's total land area. National Forests encompass nearly 338,000 acres within the county; National and State Parks include 70,000 and 72,000 acres, respectively. National and State Wildlife Areas cover 2,600 and 2,000 acres. County and Community Parks account for 1,000 acres. The Bureau of Land Management's Forest Reserves cover 7,600 acres. Altogether, these public forested lands (also including reserves, parks, and other holdings) total over 679,500 acres or 35.5 percent of all forested lands in Humboldt County.

In 2000, the County's total gross value of timber production was \$285,232,953, for which Humboldt County is ranked first in the state. The increased value of harvested timber in recent years has led to a dramatic increase in overall agricultural value.

TIMBERLAND CONVERSION

Timberland conversion, the transfer of timberland to other uses, occurs as a result of General Plan amendments and new subdivisions, as well as through the Certificate of Compliance process, which involves recognition of historic parcels that may be substandard to minimum parcel sizes and densities established by the General Plan. One quarter of all the Certificate of Compliance applications submitted since 1985 have been on agricultural properties and timberlands, affecting more than 18,000 acres. Also, more than one half (53 percent) of all the lot line adjustment applications since 1985 have been on agricultural and timberlands, affecting more than 16,000 acres.

These changes are primarily reflective of the breakup of old family ranches. Timber production on these areas is likely still viable; therefore, these changes are not deeply significant with respect to the timber economy. Direct land use conversions by rezone out of TPZ (Timber Production Zone) have been more limited, on the order of 1,000 acres over the last 25 years, 910 acres of which were part of the County's Eureka Community Plan in 1995.

An additional conversion issue that has long been a topic of debate is conversion by public acquisition, highlighted most recently by the Headwaters Forest Reserve acquisition, which

removed 7,500 acres from timber production. While such conversions maintain the open space values of the lands, they are lost to the economic sector.

3.2 FOREST TYPES

Trees are generally classified as hardwood (including all oaks, alders, and other deciduous or broadleaf species) or softwood (including fir, spruce, pine, redwoods and all other coniferous or needle-bearing species), although some "hardwoods" are softer than softwoods. Forest types, as listed by the California Department of Forestry, are categorized by the dominant species or mix in that region.¹

Table 3-1 lists all forest types that occur in the county. A more generalized depiction of forest types is provided in Figure 2-2 (Vegetation Types) in Chapter 2, Biological Resources.

Table 3-1: Forest Types in Humboldt County

<i>Habitat Type</i>	<i>Acres</i>
Douglas Fir	701,437
Montane Hardwood	469,351
Redwood	428,277
Montane Hardwoods Conifer	167,452
Montane Riparian	51,165
White Fir	33,366
Coastal Oak Woodland	32,812
Klamath Mixed Conifer	18,918
Red Fir	6,884
Jeffrey Pine	2,451
Closed-Cone Pine Cypress	614
Ponderosa Pine	73
Blue Oak Foothill Pine	27
Total	1,912,827

Source: Humboldt County GIS.

The most common forest types in Humboldt County include the following:

- Douglas fir forest, the dominant forest type in the county, is found at elevations of 500 to 2,000 feet (normally above redwoods, but also below in the southern county),

¹ California Forest Legacy Program, *Amendment to the Assessment of Need*, Sept 2000, pp 32-39, 193.

and includes a variety of oaks and pines, with yew, cedar, and hemlock also growing in moister sites.

- Montane hardwood forest is found largely in steep canyon slopes and ridgetops, dominated by the canyon live oak, with other oaks, pines, madrone, and laurel at lower elevations.
- Redwood forest grows primarily along the coast and in nearby lowland areas, with redwoods interspersed with a variety of other conifers and red alder.
- Montane hardwoods conifer forest occurs farther inland, above rainier areas, and includes black oak, white oak, live oak, along with white firs and Douglas-firs.
- Montane riparian forest, which is generally not productive, is marked by bigleaf maple, California bay, and Fremont cottonwood.

LAND SUITABLE FOR PRODUCTION

Forest resources, much like agricultural resources, are dependent on the quality of the climate and soils. Humboldt County’s mild and wet climate is conducive to timber production. There are 1,900,000 acres of forestland in Humboldt County, 1,700,000 of which are considered suitable for production (see Table 3-2). About 900,000 acres are part of the Timber Production Zone (TPZ).² This acreage is equal to 45 percent of the total land acreage in the county. Humboldt County has the largest harvest of any county in the state of California. In 1996, Humboldt harvested more than 500 million board-feet of timber, or nearly 23 percent of the total harvest in California.

However, the timber industry has been in decline over the past twenty years due to protection of spotted owl habitat, stricter environmental regulations, and fewer trees in private ownership. Nonetheless, forest resources have been important in the growth of the tourism and tourist-related industries in Humboldt, which have increased with the global recognition of California’s redwood forests.

Table 3-2: Forest Resources in Humboldt County

<i>Type</i>	<i>Acres Suitable for Production</i>	<i>Acres Not Suitable for Production</i>	<i>Total Acres</i>
Bigleaf Maple (Dogwood)	2,031.5		2,031.5
Bishop Pine	241.9		241.9
California Bay		31,922.9	31,922.9
California Black Oak	17,260.3		17,260.3
Canyon Live Oak		18,382.2	18,382.2
Douglas-Fir – Grand Fir	21,338.0		21,338.0

² The TPZ area depicted in the County’s GIS is generalized and includes some islands of non-timber lands.

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Douglas-Fir – Pine	19,048.8		19,048.8
Douglas-Fir – White Fir	14,353.8		14,353.8
Eucalyptus	126.5		126.5
Fremont Cottonwood		778.9	778.9
Gray Pine		27.1	27.1
Jeffrey Pine	2,450.9		2,450.9
Knobcone Pine		53.4	53.4
Madrone (Black Oak)	889.5		889.5
Mixed Conifer – Fir	5,082.4		5,082.4
Mixed Conifer – Pine	3,944.7		3,944.7
Monterey Cypress		36.9	36.9
Oregon White Oak		121,487.8	121,487.8
Pacific Douglas-Fir	898,594.0		898,594.0
Ponderosa Pine	106.1		106.1
Port Orford Cedar	55.9		55.9
Red Alder	42,918.9		42,918.9
Red Fir	6,922.2		6,922.2
Redwood	194,349.4		194,349.4
Redwood - Douglas-Fir	216,780.7		216,780.7
Shore Pine		282.2	282.2
Sitka Spruce	22,819.1		22,819.1
Sitka Spruce – Grand Fir	3,154.5		3,154.5
Sitka Spruce – Redwood	35,226.1		35,226.1
Subalpine Conifers		0.5	0.5
Tanoak (Madrone)	174,134.3		174,134.3
Tree Chinquapin	2,399.2		2,399.2
Ultramafic Mixed Conifer	14,042.7		14,042.7
White Alder		83.4	83.4
White Fir	34,259.5		34,259.5
Willow		3,548.6	3,548.6
Willow – Alder		3,835.5	3,835.5
Total	1,732,530.7	180,439.3	1,912,970.0

Source: Dyett & Bhatia, 2002, and Humboldt County GIS 2002.

3.3 TIMBERLAND PRODUCTION ZONE (TPZ)

The Timberland Production Zone (TPZ)³ was established in 1976 in the California Government Code as a new designation for lands for which the Assessor’s records as of 1976 demonstrated that the “highest and best use” would be timber production and accessory uses. Public improvements and urban services are prohibited on TPZ lands except where necessary and compatible with ongoing timber production. TPZ land is generally clustered along a north-south axis through the middle of the county, from the western side of the Lower Klamath watershed to the center of the Lower Eel watershed. Although specific TPZ parcels have not been incorporated into the County’s digitized map system (GIS), timberland and TPZ areas are generally depicted in Figure 3-1. Areas shown as timberlands on the map may include some small islands of non-timbered sites.

The original purpose of TPZ zoning, subsequent to the Z’berg-Nejedly Forest Practice Act of 1973 (FPA; see Section 3.4) and Z’berg-Warren-Keene-Collier Forest Taxation Reform Act of 1976 (FTRA), was to preserve and protect timberland from conversion to other, more profitable uses⁴ and ensure that timber producing areas not be subject to use conflicts with neighboring lands. The Timberland Productivity Act of 1982 (TPA) later formalized the State’s policy in favor of sustainable harvest, allowing for long-term availability of timber resources.

Land was zoned TPZ via three methods, for which parcels were assigned to one of three “lists”:

- List “A” parcels were those assessed as timberland as of March 1, 1976. Landowners with parcels on this list that they wished *not* to be zoned TPZ were required to contest the assessment in writing; a majority of the County Board of Supervisors had to make a finding in agreement with the landowner for the land to be zoned otherwise.⁵
- List “B” parcels included some of the parcels judged to “constitute timberland, but which were not assessed for growing and harvesting timber as the highest and best use of the land” for property tax purposes.⁶ The Assessor evaluated all parcels in this class;

³ TPZ is referred to as Timberland Preserve Zone in some State documents, but is called the Timberland Production Zone for the purposes of the County General Plan. (California Government Code §51104.)

⁴ FTRA was introduced as a measure of tax relief for small timberland owners who could not keep up with the old, ad valorem tax system.

⁵ California Government Code §51110.

⁶ California Government Code §51110.1.

those that according to the Assessor's judgment were at least "highly suitable" for timber production comprised List "B" and were treated like List "A" parcels.⁷

- Another list, informally called "C," consists of those parcels not assessed as timberlands for which the landowner has successfully petitioned the County Board of Supervisors to be zoned TPZ and has demonstrated the suitability of the land for such designation.⁸

Lands zoned TPZ are committed to timber production for the initial 10 years after the zoning declaration; the TPZ status is then renewed automatically every year thereafter. Land zoned TPZ, which the owner petitions to have rezoned otherwise, may be required to remain TPZ for one year after the rezoning declaration is made.

Parcels in the TPZ must be no smaller than 160 acres, or if a joint timber management plan (JTMP) is prepared and approved by a registered forester, 40 acres. A JTMP must include a management plan (identifying access, rights-of-ways, and stocking requirements as regulated by State law) and a management guide (describing the property, existing and proposed access, and timber inventory and stocking plan).⁹

LARGE LANDOWNERS AND INDUSTRIAL LAND

Industrial timberland is land owned by companies that either operate a sawmill or manage at least 5,000 acres of productive timberland. Non-commercial owners are not considered industrial. The five largest timberland owners in Humboldt County are industrial lumber companies. Industrial timberland owners (identified in Table 3-3) own a combined area of 657,098 acres, two-thirds of timberland in Humboldt County. Figure 3-1 displays industrial and non-industrial timberlands in the County.

Most of the remaining large landowners (those owning 2,500 acres of timberland or more) in the county are family trusts and foundations, although three ranches (the Russ Ranch and Timber Company, Gift Ranch, and Perry Ranch) and the Yurok Native American tribe, which owns nearly 2,900 acres, also rank as large timberland owners.

⁷ Humboldt County Planning Department. *General Plan Revision Program, Policy Background Study: Timberlands* (\$2.342). Summer 1981.

⁸ California Government Code §51113.

⁹ Humboldt County Community Development Services JTMP Brochure.

Table 3-3: Industrial Timberland Owners

<i>Owner Name</i>	<i>Acres</i>
Simpson Timber Co.	339,355
Pacific Lumber Company ¹	215,107
Barnum Timber Co.	38,576
R. Emmerson	25,024
Eel River Sawmills	17,266
Soper-Wheeler Company	11,358
Sierra Pacific Industries	10,412
Total	657,098

¹ Pacific Lumber Company is a subsidiary of Maxxam Group, which also includes Scotia Pacific and Salmon Creek LLC.

Source: Humboldt County GIS 2002.

SMALL LANDOWNERS

In the Forest Practice Act, the California State Legislature declares that:

- A substantial acreage of timberlands of the state are held by private non-industrial owners and that it is the policy of the state to increase the productivity of these timberlands under prudent management plans to serve the public's need for timber and other forest products;
- Minimal environmental harm is caused by prudent management of non-industrial timberlands because low volume production and dispersion around the state of these small tracts reduces damage to aesthetics, air quality, watersheds, and wildlife; and
- It is the policy of the state to encourage prudent and responsible forest resource management of non-industrial timberlands by approving non-industrial timber management plans in advance and withdrawing governmental discretion to disapprove non-industrial timber harvest notices submitted pursuant to the approved non-industrial timber management plans.¹⁰

The Forest Practice Act allows the preparation of Non-industrial Timber Management Plans (NTMPs) with tax benefits for landowners with fewer than 2,500 acres of land not primarily engaged in the manufacture of forest products. The NTMP requires assessment of soils; stand structure; roads; potential growth; erosion problems; pest, disease, and fire potential; priority of forest values; and impacts of the planned operations on wildlife, water quality, aesthetics, grazing, recreation, and traffic. The number of NTMPs submitted in Humboldt County has risen steadily over the past decade, from two in 1992 to 30 in 2000.

¹⁰ California Public Resources Code, § 4593.

Figure 3-1 shows the distribution of industrial timberland and other timberland, which includes both large and small landholdings. During Phase I of the General Plan Update, the issue of small landholdings and their needs was raised. Table 3-4 shows that only a relatively small portion of the land classified as “Other Timberland” is actually in small ownerships. In fact, only 223 parcels, comprising just over 8 percent of all parcels of other timberland are less than 160 acres in size.

Table 3-4: Parcel Sizes For Non-Industrial (Other) Timberland

<i>Acreage Ranges</i>	<i>Number of Parcels</i>	<i>Percent of Total</i>
40 acres or fewer	120	4.4
41 - 80 acres	82	3.0
81 - 160 acres	21	0.8
Greater than 160 acres	2,502	91.8
Total	2,725	215,105

Source: Humboldt County GIS, 2002.

LAND USE CONFLICTS¹¹

The Humboldt County Forestry Review Committee (FRC) has identified land use concerns and issues relevant to timber production. A complete list of FRC issues is included as Appendix A. Preeminent are use conflicts relating to small residential landholdings and utilities. Recreation opportunities on timberlands may also need to be weighed and reviewed for compatibility with timber production.

Small Landholdings and Residential Use

Dwellings on residential lots often conflict with timber production on adjacent or nearby lots due to residential landowners’ concerns about ambient conditions affected by timbering, including: traffic safety, dust, erosion control, slope stability, noise, smoke, water quality, sensitive habitats, views and aesthetic values. Subdivisions to create small lots in or adjacent to timberlands increase the land use conflicts between timberland and non-timberland property owners. Litigation costs increase in the interface between timberland and residential lots.

Additional conflicts can arise from smaller lots within the TPZ. Allowing small lots into TPZ may discourage timber production because these lots are often purchased and used primarily for residential purposes and may be adjacent to small parcels with landowners who may object to timber harvesting activities.

¹¹ Adapted from the minutes of the 15 Nov 2000 meeting of the Humboldt County Forestry Review Committee.

Figure 3-1: Forest Land Ownership in Humboldt County

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Utilities

The FRC states that utility companies do not always manage their easements in ways compatible with timber production on adjacent lands, as their concerns are primarily regarding impacts to utility lines. Conflicts arising from lack of support for timber production on adjacent timberlands may necessitate governmental intervention.

Additionally, public water systems must be developed to minimize water withdrawals from sensitive habitats, as this affects both timber producers and residential users who are concerned about erosion and water quality. Drainage facilities need to be maintained on public and private roads to protect the roads and water quality.

3.4 REGULATORY FRAMEWORK

FOREST PRACTICE ACT

The Z'berg-Nejedly Forest Practice Act (FPA), adopted by the California legislature in 1973, inaugurated the most comprehensive timber harvesting regulation process in the nation. The FPA requires the preparation of Timber Harvesting Plans to ensure maximum sustained production through incorporation of regeneration methods, published yield tables, and a Sustained Yield Plan. The FPA specifies for fire protection zone rules, control of soil erosion, protection of streams, maintenance of drainage facilities, stocking requirements, and penalties for noncompliance.

Apart from THP regulations, the FPA also addresses Non-industrial Timber Management Plans, timberland conversion, licensing of forestry professionals, and establishment of forest management districts.

The 1973 FPA has been revised and bound with excerpts from the Wild and Scenic Rivers Act, the Professional Foresters Law, and the Registration of Professional Foresters Rules into the California FPA 2002.

TIMBER HARVESTING PLANS

Before timber can legally be harvested in Humboldt County, a Timber Harvesting Plan (THP) must be submitted to and approved by the California Department of Forestry and Fire Protection (CDF). CDF enforces the laws of the Forest Practice Act (FPA) and State Board of Forestry and Fire Protection (Board) that regulate logging on all privately-owned lands in California, encompassing ranchers, large timber companies, and small landowners with commercial operations.

A THP is “the blueprint submitted by a landowner to CDF outlining what timber they want to harvest, how it will be harvested, and the steps that will be taken to prevent damage to the

environment.”¹² THPs must be prepared by Registered Professional Foresters (RPFs), who are specifically licensed to prepare them. Once approved, a THP is effective for up to three years.

Once a THP is submitted to CDF, the Department distributes Notices of Intent and Notices of Submission to interested parties. A first review is carried out by CDF, DFG, RWQCB, the California Division of Mines and Geology, and other agencies as needed; when the THP is deemed complete, it is officially filed. The review team conducts a Pre-Harvest Inspection and discusses its findings. A 30-day public comment period is opened, and all public comments receive a written response from CDF. The final recommendation is sent to the RPF; once the RPF responds, the THP goes to the Director of CDF to be approved or denied within 15 days.

Approval of a THP rests solely upon its compliance with state and federal rules and laws; a THP cannot be denied due to public unpopularity. A THP that does not comply with all forestry and environmental regulations is returned to the RPF, and can thereafter be approved when the RPF and landowner agree to necessary changes. Follow-up inspections are common, and can be cause for citing or fining the RPF and landowner or shutting down the operation.

As of April 2002, THPs covering a total area of 1,540 acres and ranging in size from 3 to 184 acres were approved for Humboldt County. Plans for approximately 8,000 more acres were awaiting approval.¹³

3.5 POLICY OPTIONS

This section focuses on timber resource issues from a public policy perspective. In evaluating existing and future conditions, the County must consider the various policy options for the issues identified in Phase I of the General Plan Update, which are summarized in the Critical Choices Report. These key questions help frame the issues for policy options for biological resources. As background, the existing policies in the General Plan are presented, followed by a discussion of issues and policy options that respond to them. The policy evaluation worksheets are in the Appendix. These worksheets are provided as a tool for members of the public to evaluate policy options and indicate preferences for accepting, modifying or rejecting these options.

EXISTING POLICIES

Existing policies in the County General Plan generally encourage retention of timberlands for production. However, the County does provide an opportunity to remove timberland from TPZ for purposes of expanding existing communities (see #7B).

¹² California Department of Forestry and Fire Prevention, “CDF’s Role in Timber Harvesting” at www.fire.ca.gov/ResourceManagement/THinCA.asp, viewed 16 April 2002.

¹³ California Department of Forestry and Fire Prevention, “Timber Harvesting Plans” table, current as of 16 April 2002.

GOAL

To actively protect and conserve timberlands for long-term economic utilization and to actively enhance and increase county timber production capabilities.

POLICIES

1. Timberlands shall be retained for timber production, harvesting and compatible uses, and reclassification of Timberland Production Zones (TPZ) shall be done in accordance with statutory requirements.
2. Avoid, wherever practical, the location of any state or local public improvements and any improvements of public utilities, and the acquisition of land therefore, in Timberland Production Zones where the project will have a significant adverse effect on the production of timber.
3. Encourage the long-term management of timberlands.
4. Support the use of forest improvement programs, whether funded publicly or privately, whether in a TPZ or other forestland.
5. Affirm and support the public services provided by County government which are necessary in maintaining a viable forest products industry.
6. Encourage, consistent with the Rural Development Section 2550, improved site productivity, timber growth and harvesting through intensive forestry management.
7. The County supports zoning correction of land from the Timberland Production Zone when it can be found that:
 - A. The original inclusion was in error or inappropriate; or
 - B. The conversion is necessary to provide for the logical expansion of an existing community.

COASTAL ZONE POLICY

The Local Coastal Program Technical Study on Timber states that “only Section 30243 of the Coastal Act provides policy considerations for Timber Preserve areas.”¹⁴

California Public Resources Code § 30243: The long-term productivity of soils and timberlands shall be protected, and conversions of coastal commercial timberlands in units of commercial size to other uses or their division into units of noncommercial size shall be limited to providing for necessary timber processing and related facilities.

¹⁴ Humboldt County Planning Department, *Local coastal Program Technical Study: Timber*, 1979, p 1.

ISSUES AND POLICY OPTIONS

Each key question or issue raised in the Critical Choices Report that relate to forest resources is discussed below. Based on County and public input, these policy options will be refined. Some of these options also will shape preparation of “sketch plans” (generalized land use plans for accommodating future development and protecting forest and agricultural resources), while others will be implemented through zoning and subdivision regulations or other programs.

Appendix B provides a worksheet for the public to evaluate these policy options in the same format as used for the Building Communities Report.

ISSUE

- *Is the current forest land base protected under existing policies?*
- *What policy changes are necessary to enhance protections?*

As described in Section 3.1, public forested lands total 679,500 acres or 35.5 percent of all forested lands in Humboldt County. The establishment of Wilderness Areas, State and National Parks, and National Forest ensures that non-timberland forest resources will be available in the long-term. The Forest Practice Act and TPZ zoning, state-mandated but locally-implemented, are recognized as the primary means of protecting timberlands. Many of the private holdings are designated TPZ, which allows for managed timber production. Old growth forests may exist outside of public lands in a few areas. These special areas, as well as other forestlands that are limited in the county and support sensitive species, should be protected.

Despite these protective measures, some forest land is being converted to non-forest uses. The Critical Choices Report recommendation is to undertake a “comprehensive inventory of forest lands; review plan and zoning designations and employ merger and patent parcel development standards to maximize protection of forest lands.” Based on the importance of forestland to the County, forestland conversion must be evaluated before policy alternatives can be developed.

Option 3.1 Initiate discussion with the timber industry and the environmental community about modifications to requirements for timber harvesting plans to protect and enhance timber resources and respond to needs of those with small timber holdings, while maintaining water quality and protecting fishers, sensitive habitats, and recreational opportunities. The Forest Practice Act specifically allows for such “tailoring” of regulations, and the County’s Forest Review Committee has been discussing these issues. One concern that would need to be resolved is that smaller holdings also allow for rural residential development which is sometimes not compatible with timber production because of concerns about traffic, safety, dust, erosion control, slope stability, noise, smoke, water quality, sensitive habitats and impacts on view sheds and scenic resources.

ISSUE

- *What are the needs of small-scale forest land managers and timber operators?*
- *How do the management decisions of property owners and State and Federal agencies affect the future of the County?*

The current 40-acre minimum lot size for TPZ lands potentially allows subdivision with approval of joint timber management plans. Rural subdivisions increase conflicts between timberland owners and non-timberland owners. Allowing smaller lots in the TPZ may discourage timber production in the County. Property owners who choose to subdivide forest resource lands may serve to undermine sustainable timber production. On rural residential lands, the timber is often clear cut and not replanted. Timbering practices on remaining small parcels may be difficult if residences are interspersed in the forest, due to harvest conflicts with rural developments.

Increasing the minimum lot size for core industrial lands would respond to concerns expressed by the industry related to land use compatibility. A two-tier system would address this issue, but also allow for smaller lots where appropriate – an idea that may be supported by the Humboldt Watershed Council because it could discourage intensive timber harvesting driven by increased taxes by allowing non-industrial timberland owners an alternative source of income from a rural subdivision. It would also allow non-industrial owners to participate in sustainable forestry.

Option 3.2 Create a two-tier system of TPZ zoning, with larger lot sizes for existing and potential industrial timberland and smaller lot sizes for timberland within or adjacent to Community Plan Areas.

ISSUE

- *What role should the County play in the management of forest resources?*
- *What aspects of forest management directly impact County jurisdictional interests?*

Due to the Forest Practice Act, forest management is generally not regulated by local policies and codes; the County can only influence the decisions made by State and Federal agencies. Given this limitation, the County's role is one of data collection, local opinion-gathering, and advocating for statewide policies beneficial to the County's economic and environmental health. Some aspects of forest management, such as harvesting within residential zones, are not preempted from local decision making.

Aspects of forest management with direct effects within the County's jurisdiction include roads, harvest operations directly adjacent to communities, and down-stream water resource impacts. Public roads will need to be improved to reduce hauling costs and address traffic safety, and cost-sharing arrangements for these improvements will need to be established.

Drainage facilities also are needed to protect road and minimize erosion and impacts on sensitive habitats and water quality.

Option 3.3 Continue to work with the Timber Industry and the Environmental Community on management issues of concern. The Forest Review Committee provides a vehicle for communication with the forest industry. This is preferable to creating a formal commission or interagency working group. The County also has initiated work on a Fire Safety Plan, which will address wildland fire risks and how federal, state and local agencies can coordinate their responses.

Option 3.4 Promote the County as a model for sustainable forestry. The County could facilitate participation in certification programs, such as those established by the Forest Steward Council and the Sustainable Forest Initiative, which can help California producers compete on a national basis. This will have economic benefits.

Option 3.5 Create a Timberland Infrastructure Maintenance and Improvement Program. A systematic approach to identifying public service needs (law enforcement and fire protection) and public improvement needs as well as cooperative funding mechanisms, including provisions for cost-sharing between the County and the forest industry, could be established. Looking at these needs on a watershed basis and a program, not a project-by-project, basis is cost-effective and more efficient.