

# Chapter 1

## Purpose and Scope of the Plan





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# 1 PURPOSE AND SCOPE OF THE PLAN

## 1.1 Company on a Mission

Mendocino Redwood Company (MRC) began in 1998 based on the conviction that a timber company could set high standards of environmental stewardship and, at the same time, operate a successful business. From the outset, our mission has been to restore MRC forests for long-term ecological and economic vitality. This mission centers around 4 commitments:

1. Improving the inventory of coastal redwoods, Douglas fir, and other conifers on our land so that the volume of conifers at least doubles within the next 50 years.
2. Maintaining and creating sustainable habitat for terrestrial and aquatic species resident in MRC forests.
3. Restoring the species composition of forests and wildlife that were present before commercial timber harvests began.
4. Conducting a successful business that will earn a return on investment while at the same time producing quality products and community pride.

To date, these commitments have provided the basis for MRC planning, including timber harvest plans (THPs), landscape level planning, internal management plans, and Option A, a requirement of the California Forest Practice Rules (CFPR).

## 1.2 Submission of the Plan

Building on these commitments to forest stewardship, MRC is submitting this document to the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) as our Habitat Conservation Plan (HCP) under provisions of the Federal Endangered Species Act (ESA); to the California Department of Fish and Game (CDFG) as our Natural Community Conservation Plan (NCCP) under provisions of the Natural Community Conservation Planning Act (NCCPA); and to the California Department of Forestry as our Programmatic Timber Environmental Impact Report (PTEIR) under provisions of the California Forest Practice Rules (CFPR). Chapter 2 provides details on this legislation—ESA, NCCPA, and CFPR—as well as on other federal and state statutes and ordinances that regulate the timber industry in California.

## 1.3 What Sets Our Plan Apart

Our HCP/NCCP is the most ambitious and comprehensive ever proposed for industrial timberlands. In addition, the plan represents a series of “firsts” for the HCP and NCCP programs:

- First HCP for an industrial timberland that is bundled to an NCCP—both with the explicit goal of improving the quantity and quality of habitat.
- First NCCP for a working forest.
- First NCCP entirely on private lands.
- First NCCP with a private company as the sole applicant.
- First NCCP that does not propose to permanently remove habitat for construction projects.
- First NCCP that does not propose to convert land from a semi-natural state to industrial, agricultural, or residential use.
- First NCCP that does not simply set aside wildlife preserves to achieve its conservation goals.

## 1.4 Goals for the Plan

Through our HCP/NCCP, MRC intends to

- Protect, enhance, and increase habitat for covered species.
- Mitigate the impact of our land management on covered species.
- Maintain and improve biodiversity on our land.
- Contribute to the recovery of threatened and endangered species through specific biological goals and objectives outlined in Chapters 8-11.
- Attain “regulatory certainty” for our endangered species management.

## 1.5 Regulatory Purpose of the Plan

An HCP and NCCP are tools to reconcile the demands of conservation with the demands of economic development. Private landowners, such as MRC, must abide by the protections set up by ESA and NCCPA for animals and plants. At the same time, landowners may use their property for economic development compatible with ESA and NCCPA. An HCP and NCCP allow a landowner and the wildlife agencies to collaborate on long-term conservation planning rather than focus on the impacts of isolated short-term incidents or actions.

## 1.6 Challenges in Merging an HCP and NCCP

HCPs and NCCPs, while both concerned with conservation, take different approaches. HCPs focus on protection for individual listed species. NCCPs focus on protection for entire natural communities. Accomplishing the goal of an NCCP is a particularly daunting task.

Where is the common ground between HCPs and NCCPs? Both planning approaches agree that protecting species entails protecting the habitat that supports the species. HCPs propose habitat conservation measures for covered species, concentrating on habitat for reproduction, feeding, rearing, migration, and shelter. NCCPs, on the other hand, seek to conserve, connect, and manage the best habitat whether currently occupied by a covered species or not. All the species in a natural community are considered important to the ongoing survival of the community—from the plant species and smaller organisms to the poster wildlife species.

Until now, NCCPs have mainly addressed the issue of urbanizing landscapes and industrial development in southern California. Urbanization is the process of transforming natural and agricultural areas into cities. In its relentless progression, urbanization divides the land into small parcels for business and residential use. From a conservation standpoint, the long-term maintenance and enhancement of a working forest that protects natural processes, communities, and habitat is a preferred alternative to the persistent pressures for urbanization of California’s private forest and agricultural lands.

One of the challenges facing MRC has been how to successfully merge the requirements of both an HCP and an NCCP. This goes even to the level of document organization. Do you organize topics by species or by natural communities? The organization of our document was dictated, in fact, by corporate history; our document began as an HCP. History aside, we believe we have met the challenge of bringing together the somewhat different perspectives of an HCP and NCCP with comprehensive conservation measures that will protect both covered species and natural communities on our land.

## 1.7 Protections and Permits

### 1.7.1 Protection lists and statuses

In order to receive protection under ESA or CESA (California Endangered Species Act), species must be designated as either *endangered* or *threatened*. USFWS, NMFS, and the California Fish and Game Commission (CFG) may also find that a proposed species warrants listing as a *candidate* for possible addition to the federal and state lists. In addition, these agencies maintain lists of *species of concern*. Sections 2.2.1 and 2.3.1 address the legal aspects of these listings for ESA and CESA respectively. In this introduction to the HCP/NCCP, we have simply provided the definitions that are necessary background to the species lists that appear in section 1.8.

An **endangered species** is one in danger of extinction throughout all or a significant portion of its range.

A **threatened species** is one likely to become endangered within the foreseeable future throughout all or a significant portion of its range.

**Federal candidate species** are those for which there is sufficient information to warrant listing even though the agencies have not completed or approved such listing.

#### DEFINITION

**State candidate species** are those which CDFG has formally *noticed* as being under review or proposed regulation for addition to the lists of threatened or endangered species.

**Federal species of concern** are those for which insufficient information exists about their status or threats in order to list them under the ESA.

**State species of special concern** are vertebrate species that show declining population levels and limited ranges or that face continual threats to their persistence.

Under federal law, there was never a *rare* status for plants and animals. However, under state law, prior to CESA, plants and animals could be listed as *rare*. With the passage of CESA, all animals formerly listed under state law as *rare* were reclassified as *threatened* to coincide with federal law; plants listed under state law as *rare* retained this status. Today, under state law, plant species can, of course, change their legal status; from time to time, a *rare* plant, for example, may become *threatened* or *endangered*. Moreover, the protections of ESA and CESA apply to plants under different circumstances. ESA primarily protects federally listed plants on federal lands and on private lands where there is federal involvement, e.g., through permitting or funding. Unlike federally listed wildlife, listed plants are not subject to ESA prohibition against take. CESA protects state listed plants anywhere within California, except when a federal agency is taking action on federal lands.

Calling a plant rare is a really a statement about the extent of its distribution or the abundance of its populations (Fiedler 1995, as cited in Nakamura and Nelson 2001). Human intervention or interference can result in a plant becoming rare. A plant, for example, may become rare as a

result of human collection as well as from habitat loss or degradation. However, a plant may also be *naturally rare*. This may be due to the unique characteristics of the plant itself.

#### DEFINITION

A **rare plant** is one that, although not presently threatened with extinction, is found in such small numbers throughout its range that it may become endangered if its present environment worsens (California Fish and Game Code § 1901).

### 1.7.2 Authorization impacting protected species

Private landowners who wish to conduct activities on their land that might incidentally *take* a species listed under ESA or CESA must first obtain a *take permit* (ITP) from USFWS, NMFS, or CDFG.

There are certain differences between the protections that ESA and CESA afford these species.

- Under ESA, the definition of *take* is to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect any species listed as endangered or threatened. ESA does not prohibit *take* of federally listed plant species or federal candidate species.
- Under CESA, the definition of *take* is to hunt, pursue, kill, or capture a listed species, as well as any other actions that may result in adverse impacts from an attempt to *take*. CESA does not include the terms *harass* and *harm*. Moreover, CESA prohibits *take* of state candidate species until CDFG makes a final decision on their listing.

The two federal signatories to this HCP/NCCP—USFWS and NMFS—also have subtle distinctions between the terms *harass* and *harm*.

- USFWS interprets *harass* to include any “intentional or negligent act or omission” that disrupts normal species behavior and that will likely result in injury to wildlife (50 CFR 17.3). NMFS has not defined “harass” by regulation.
- USFWS and NMFS interpret *harm* as significant modification and degradation of wildlife species habitat that impairs essential wildlife species behavior (such as breeding, feeding, or sheltering) and that actually kills or injures wildlife. The regulatory definitions of these terms are at 50 CFR 17.3 for USFWS and at 50 CFR 222.102 for NMFS.

Sections 2.2.2 and 2.3.2 provide the legal definitions of *take*, *harass*, and *harm* as well as a more in-depth description of the authorization process under ESA and CESA respectively.

#### 1.7.2.1 Federal permits

Upon approval of an HCP, USFWS may authorize *take* of federally listed terrestrial and resident aquatic wildlife species covered in the plan; NMFS can authorize *take* of anadromous fish species covered in the plan. ESA does not prohibit incidental take of federally listed plants as long as state laws are not violated. However, when USFWS issues a federal permit for a project, such as an HCP, the agency must also ensure that federally listed plants are not jeopardized by the project. Throughout our HCP/NCCP, any reference to authorized take of covered species under the federal permits refers to take of wildlife covered species only; however, the plan also includes



measures to offset loss of federally listed plant species and their habitats. MRC has included plants among covered species (section 1.8.2) because we recognize the benefit in conserving these plant species and we want to ensure they are not jeopardized. In addition, we seek to extend to them any "no surprises" assurances under ESA. Briefly, the *no surprises rule* states that once a government agency and a landowner agree to conservation measures and mitigation both sides must abide by the agreement.

### 1.7.2.2 State permits

Upon approval of an NCCP, CDFG may authorize *take* of any species covered by the plan, including plant species. Pursuant to an approved NCCP, CDFG may also provide assurances to plan participants commensurate with the participants own assurances to CDFG regarding their proposed conservation measures and implementation strategies.

## 1.8 Covered Species in the Plan

### DEFINITION

**Covered species** are species on MRC covered lands that are listed as *threatened*, *endangered*, or *species of concern* and for which MRC has proposed conservation measures; the wildlife agencies may permit incidental take of such species.

### 1.8.1 Fish and wildlife species

The HCP/NCCP covers 9 fish and wildlife<sup>1</sup> species or sub-species in the plan area. CDFG has listed 2 of these species as *endangered*, 1 as *threatened*, and 6 as *special concern*. On the federal level, 7 of these species have *threatened* or *endangered* status. One species—the coastal tailed frog—is not classified as *threatened* or *endangered* by either ESA or CESA. The coastal tailed frog does, however, occupy habitat frequently used by other species covered in the HCP/NCCP. As a result, MRC can extend habitat protection to the coastal tailed frog as well.

Table 1-1 lists the covered fish and wildlife species in the order in which they are discussed in the species accounts, along with their federal and state status. If there are 3 terms listed under the scientific name as is the case for the northern spotted owl (i.e., *strix occidentalis caurina*), this indicates a sub-species; the northern spotted owl is a sub-species of spotted owl.

### 1.8.2 Plant species

In addition to fish and wildlife species, the HCP/NCCP covers rare plants. Table 1-2 lists these 31 plants in alphabetical order by scientific name. Along with the legal status of plants listed by ESA and CESA, we include classifications from the CDFG *Natural Diversity Database (NDDDB)* and from the CDFG *California Rare Plant Rank (CRPR)*. Appendix R, *Plant Rankings*, explains the relationship between CRPR and the CNPS list of the California Native Plant Society (CNPS), a state-wide non-profit organization that publishes and maintains an *Inventory of Rare and Endangered Vascular Plants of California*. Basically, in 2010 CDFG renamed its list to CRPR to distinguish it from the CNPS list. While the CNPS listing process informs the CDFG list, it is not the only information that CDFG considers in its CRPR list. Appendix Q, *Plant Communities by Inventory Block*, also shows the likely location of our covered plants in the plan area and provides

<sup>1</sup> Ordinarily, wildlife refers to “living things and especially mammals, birds, and fishes that are neither human nor domesticated.” In government administration and policy, however, a distinction is sometimes made between fish and wildlife. We have adopted this same distinction.

information on their microhabitat (e.g., mesic, serpentine, grassland), their habitat elevations, and bloom periods.

**Table 1-1 Fish and Wildlife Species Covered by the HCP/NCCP**

Fish and Wildlife Species Covered by the HCP/NCCP			
Common Name	Scientific Name	Fed Status	State Status
coho salmon (Southern Oregon /Northern California ESU)	<i>Oncorhynchus kisutch</i>	T	T
coho salmon (Central California Coast ESU)	<i>Oncorhynchus kisutch</i>	E	E
Chinook salmon (California Coastal ESU)	<i>Oncorhynchus tshawytscha</i>	T	-
steelhead (Northern California Coast ESU)	<i>Oncorhynchus mykiss</i>	T	CSC <sup>a</sup>
steelhead (Central California Coast ESU)	<i>Oncorhynchus mykiss</i>	T	-
California red-legged frog <sup>b</sup>	<i>Rana draytonii</i>	T	CSC
northern red-legged frog	<i>Rana aurora</i>	-	CSC
coastal tailed frog	<i>Ascaphus truei</i>	-	CSC
northern spotted owl	<i>Strix occidentalis caurina</i>	T	CSC
marbled murrelet	<i>Brachyramphus marmoratus</i>	T	E, BFS
Point Arena mountain beaver	<i>Aplodontia rufa nigra</i>	E	CSC

**TABLE NOTES**

<sup>a</sup> Only summer steelhead have the CSC designation.

<sup>b</sup> The range of the California red-legged frog was officially changed to include southern Mendocino County (see 70 FR 66906, p. 66914, 11/03/2005 and 71 FR 19244, p. 19290, 04/13/2006). This HCP/NCCP covers both subspecies of red-legged frogs wherever they occur in the plan area.

Codes

E – endangered species  
T – threatened species  
CSC – California species of concern  
BFS – designated as sensitive by the California Board of Forestry and Fire Protection  
ESU - evolutionally significant unit

**Table 1-2 Plant Species Covered by the HCP/NCCP**

Plant Species Covered by the HCP/NCCP						
Common Name	Scientific Name	Federal Status	State Status	NDDB	CRPR	CRPR Threat Code
Humboldt milk-vetch	<i>Astragalus agnicidus</i>	None	E	G2/S1.1	1B	.1
small groundcone	<i>Kopsiopsis hookeri</i>	None	None	G5/S1S2	2	.3
pygmy cypress	<i>Hesperocyparis pygmaea</i>	None	None	G2T2/S2.2	1B	.2
swamp harebell	<i>Campanula californica</i>	None	None	G3/S3.2	1B	.2
California sedge	<i>Carex californica</i>	None	None	G5/S2?	2	.3
bristly sedge	<i>Carex comosa</i>	None	None	G5/S2?	2	.1
deceiving sedge	<i>Carex saliniformis</i>	None	None	G2/S2.2	1B	.2
green sedge	<i>Carex viridula</i> var. <i>viridula</i>	None	None	G5T5/S1.3	2	.3
Oregon goldthread	<i>Coptis laciniata</i>	None	None	G4G5/S3.2	2	.2
streamside daisy	<i>Erigeron biolettii</i>	None	None	G3?/S3?	3	NA
coast fawn lily	<i>Erythronium revolutum</i>	None	None	G4/S2.2	2	.2
Roderick's fritillary	<i>Fritillaria roderickii</i>	None	E	G1Q/S1.1	1B	.1

Plant Species Covered by the HCP/NCCP						
Common Name	Scientific Name	Federal Status	State Status	NDDB	CRPR	CRPR Threat Code
Pacific gilia	<i>Gilia capitata</i> ssp. <i>pacifica</i>	None	None	G5T3T4/S2.2?	1B	.2
glandular western flax	<i>Hesperolinon adenophyllum</i>	None	None	G2/S2.3	1B	.2
thin-lobed horkelia	<i>Horkelia tenuiloba</i>	None	None	G2/S2.2	1B	.2
hair-leaved rush	<i>Juncus supiniformis</i>	None	None	G5S2.2?	2	.2
coast lily	<i>Lilium maritimum</i>	None	None	G2/S2.1	1B	.1
Baker's meadowfoam	<i>Limnanthes bakeri</i>	None	R	G1/S1.1	1B	.1
running-pine	<i>Lycopodium clavatum</i>	None	None	G5/S3S4.2	4	.1
Mendocino bush mallow	<i>Malacothamnus mendocinensis</i>	None	None	GXQ/SX	1A	NA
seacoast ragwort	<i>Packera bolanderi</i> var. <i>bolanderi</i>	None	None	G4T4/S1.2	2	.2
Bolander's beach pine	<i>Pinus contorta</i> ssp. <i>Bolanderi</i>	None	None	G5T3/S3.2	1B	.2
North Coast semaphore grass	<i>Pleuropogon hooverianus</i>	None	T	G1/S1.1	1B	.1
white-flowered rein orchid	<i>Piperia candida</i>	None	None	G3G4/S3.2	1B	.2
great burnet	<i>Sanguisorba officinalis</i>	None	None	G5?/S2.2	2	.2
maple-leaved checkerbloom	<i>Sidalcea malachroides</i>	None	None	G3G4/S3S4.2	4	.2
purple-stemmed checkerbloom	<i>Sidalcea malviflora</i> ssp. <i>purpurea</i>	None	None	G5T2/S2.2	1B	.2
beaked tracyina	<i>Tracyina rostrata</i>	None	None	G1G2/S1S2.2	1B	.2
Santa Cruz clover	<i>Trifolium buckwestiorum</i>	None	None	G1/S1.1	1B	.1
long-beard lichen	<i>Usnea longissima</i>	None	None	G4/S3.1	NA	NA
oval leaved viburnum	<i>Viburnum ellipticum</i>	None	None	G5/S2.3	2	.3

**TABLE NOTES**

## Coverage

- All listed plants are covered by a permit from CDFG.

## Codes

- E – endangered species
- T – threatened species
- NA – not applicable

## Acronyms

- NDDB = Natural Diversity Database
- CRPR = California Rare Plant Rank

## 1.9 Selection Process for Covered Species

After considering the wide-range of special-status species in our timber forests, MRC selected the covered species for our HCP/NCCP based on several factors:

- Current status of a species under ESA and CESA.
- Potential for future listing of a species under ESA and CESA.
- Potential for MRC forest management to adversely impact a species.
- Cost to MRC of covering additional species not listed as *endangered* or *threatened*.
- Ability of MRC to effectively conserve and manage the species in order to meet the regulatory standards of the NCCPA and receive regulatory assurances.
- Advantages of conserving and managing covered species on a landscape scale rather than a project scale.

### 1.9.1 Choosing species for plan coverage

#### 1.9.1.1 Fish and wildlife species

Our reasons for selecting specific fish and wildlife species were as follows:

- MRC covered coho salmon, Chinook salmon, steelhead, and California red-legged frogs because
  - a. USFWS, CDFG, or NMFS listed them as *threatened* or *endangered*.
  - b. MRC was confident that we could develop a feasible plan to restore, enhance, and protect the habitat for these species.
- MRC covered northern red-legged frogs and coastal tailed frogs because they would benefit from the protections provided for coho salmon, Chinook salmon, steelhead, and California red-legged frogs.
- MRC covered northern spotted owls, marbled murrelets, and Point Arena mountain beavers because
  - a. USFWS or CDFG listed them as *endangered* or *threatened*.
  - b. MRC wanted a predictable management plan and regulatory certainty for these species.

#### 1.9.1.2 Plant species

MRC covered plant species based on conservation and distribution criteria.

- Conservation criteria
  1. Listed as *rare*, *threatened*, or *endangered* under CESA or ESA; or
  2. Designated under CNPS as 1B or 2 (CNPS 2001, 2006); or
  3. Ranked by CNDDDB as S1, S2, or S3 (CDFG 2006).
- Distribution criteria
  1. One or more occurrences of the plant species are currently known in the plan area; or
  2. Known geographic range of the species includes the plan area or the adjustment area for this HCP/NCCP; and
  3. Suitable habitat is (a) currently in the plan area or (b) expected to occur in the plan area or (c) within the adjustment area.
  4. Rare plant species are either known from or expected in the natural communities, vegetation types, and habitats that are the focus of this HCP/NCCP.

Three of our covered plant species do not meet the conservation criteria outlined above. *Maple leaved-checkerbloom* and *running pine* have been down-listed to CNPS 4 and CNDDDB S3S4.2 during the preparation of this HCP/NCCP. *Long-beard lichen* is currently not on any special status list. MRC acknowledges, however, that new occurrences of these 3 species in Mendocino County may be regionally rare and locally significant despite their ranking. Since these plants may occur in areas where MRC will conduct logging operations, we are seeking coverage for them under our HCP/NCCP.

## 1.9.2 Excluding species from plan coverage

### 1.9.2.1 Fish and wildlife species

Our reasons for not covering specific fish and wildlife species were as follows:

- MRC did not cover the bald eagle because it rarely occurs in the plan area and, therefore, covered activities are unlikely to impact it.
- MRC did not cover the California freshwater shrimp because its habitat does not exist in or near the plan area.
- MRC did not cover Vaux's swift, purple martin, peregrine falcon, Sonoma tree vole, Pacific fisher, pileated woodpecker, and southern torrent salamander because
  - a. USFWS and CDFG have not listed these species as *threatened* or *endangered*; and
  - b. Additional coverage entailed additional financial burden for MRC in the form of more conservation measures, monitoring, and adaptive management.
- MRC did not cover the foothill yellow-legged frog because our HCP/NCCP will enhance shade and cold water habitat for anadromous salmonids and other amphibians, while foothill yellow-legged frogs prefer water that is warmer and more open.

#### NOTE

Foothill yellow-legged frogs are in decline in many regions of the state but appear to be quite abundant within the plan area. The conditions contributing to the decline of foothill yellow-legged frogs elsewhere in the state (i.e., urbanization, dams, pesticide drift, etc.) are not as prevalent in the plan area.

### 1.9.2.2 Plant species

MRC did not select plants known only in communities and habitats in the plan area where covered activities are not proposed (i.e., coastal dunes, coastal bluffs, and coastal scrub). We also excluded plants that are not likely to occur in the adjustment area or be impacted by covered activities. Our covered rare plant list includes species known mainly from coastal prairie only if they also occur within forest communities or adjacent to forest communities.

## 1.10 Species Not Covered in the Plan

Within the plan or assessment areas, there may be species currently listed by ESA and CESA but not covered under our HCP/NCCP, including, for example, the bald eagle, the California freshwater shrimp, and the lotus blue butterfly. Statutory *take* prohibitions will continue to protect such species. MRC will request technical assistance from the appropriate wildlife agencies whenever we propose potential disturbance or habitat modifications that may affect listed species not covered in the plan. For species listed after formal approval of the HCP/NCCP, we will either manage such species on a case-by-case basis with technical assistance from the wildlife agencies or amend the HCP/NCCP to include them. Finally, we will evaluate potential impacts and propose mitigation on a site or THP basis and describe these in the PTHP. Such proposals are subject to standard review and comment by the wildlife agencies.

## 1.11 Natural Communities in the Plan

### DEFINITION

A **natural community** is an integrated group of species—plant, animal, fungal, and microorganism—that inhabits a given area, often identified by its principal, or sometimes unique, vegetation types.<sup>2</sup>

The word *natural* does not imply that an area has been completely untouched by human activity. Nor does it imply that what exists in an area now is what always existed there. Some natural communities have been created by natural disasters. A fire sweeps through a woodland and in its wake grassland comes alive. Like all life, natural communities are constantly changing and moving through natural transitions.

In the case of natural communities, we may protect what remains today or attempt to restore what existed 50 or 100 years ago. MRC, for example, is protecting the remaining old growth redwood stands on our land and restoring the species composition and distribution in our forests as a whole. In this way, we are enhancing the natural community of coastal redwood and Douglas fir.

MRC identified and delineated the natural communities in the plan area using our own inventory data, input from the wildlife agencies, and various natural community schemes from the scientific literature (see Appendix P, *Natural Community Schemes*). Some schemes rely solely on either vegetation or wildlife habitat, while others use a combination of both. Likewise, some schemes reduce classifications to very small scales, so that vernal pools or serpentine soils are considered separate communities. MRC used such schemes in typing our vegetation, but adapted them to the distinct experience and goals of commercial forest management. We consider vernal pools and serpentine soils, for example, as habitat elements that might be found throughout any of the natural communities in our forests.

The MRC inventory system bases its vegetation stratification on aerial photographs and ground-truthing<sup>3</sup> (see Appendix U, *Inventory Strategy*). Typically, we do not map vegetation under 20 ac for our inventory database, unless it is a distinct or unique natural community. At the scale of resolution used in the MRC inventory database and subsequently in our HCP/NCCP, the natural communities in the plan area are

- North Coast coniferous.
  - Redwood forest.
  - Douglas fir forest.
- Broadleaved upland.
  - Hardwood.
  - Mixed hardwood and conifer.
- Closed cone coniferous.
  - Pygmy cypress.
  - Bishop pine.
- Oak woodlands.

<sup>2</sup> Definitions of natural community vary somewhat. CDFG defines a natural community as a distinct, identifiable, and recurring association of plants and animals that are ecologically interrelated (FGC subsection 2702d).

<sup>3</sup> Ground truthing is a term used in cartography, satellite imagery, analysis of aerial photographs, and other remote sensing techniques in which data is gathered at a distance. Ground truth refers to information collected on the ground to aid in the interpretation and analysis of what is being sensed remotely.

- Oak woodland.
- Grasslands.
- Salt marsh.
- Deciduous riparian.
  - Red alder.
- Aquatic.
  - Lotic (running water wetlands).
  - Lentic (still water wetlands).

Other natural communities, such as coastal scrub and coastal dune, do occur in the plan area but are not covered by the HCP/NCCP. These communities comprise a very minor portion (less than 50 ac) of the plan area and are unlikely to be impacted by covered activities. The HCP/NCCP does not apply to *take* of listed species in communities not covered by the HCP/NCCP.

## 1.12 Covered Lands in the Plan

In addition to specifying covered species, MRC must specify which lands are covered by our HCP/NCCP. Throughout our HCP/NCCP, there are references to *plan area*, *adjustment area*, and *assessment area*.

### DEFINITION

The **plan area** is MRC land covered by the HCP/NCCP; the terms *plan area* and *covered lands* are synonymous.

The **adjustment area** encompasses the plan area as well as land adjacent to the plan area—primarily commercial timberland—from which MRC may add or delete covered lands.

An **assessment area** is any location inside or outside the adjustment area that MRC evaluates for its habitat, species, sediment load, or other resources, as well as for HCP/NCCP impacts.

### 1.12.1 Plan area

The initial plan area will include approximately 213,244 ac owned by MRC in Mendocino County.<sup>4</sup> As surveys become more accurate, this acreage adjusts. Moreover, the plan area may increase if MRC buys land in the adjustment area or decrease if MRC sells land in the plan area.

As the map in Figure 1-1 shows, MRC forests are not a solid block of land; they are pockets or islands within a greater landscape. The plan area is located west of Highway 101, from the Humboldt-Mendocino county line to the southernmost extent of the Russian River watershed. Appendix C, *Legal Descriptions of MRC Timberland*, provides up-to-date deed references.

### 1.12.2 Adjustment area

MRC may add land from the adjustment area that is not already part of the plan area or delete land from the existing plan area. Most of the adjustment area, also shown in Figure 1-1, is zoned

<sup>4</sup> Our HCP/NCCP always refers to gross acres, while the PTEIR refers to net acres. The PTEIR uses the MRC landscape model in its analysis of actual forest cover. To calculate net acres, the landscape model subtracts 3% of the acreage for roads. For example, if the number of gross acres was 1000, the net acres would be 970. Therefore, there will be noticeable discrepancies between statements of acreage in the HCP/NCCP and in the PTEIR.

for timber production. Industrial timberlands comprise the largest portion of the land, including Hawthorne Timber Company, Soper-Wheeler Company, Pioneer Resources, and Gualala Redwoods. Commercial timberland, owned, for example, by The Conservation Fund and the Redwood Forest Foundation, make up another portion. Finally, Jackson Demonstration State Forest (JDSF) and small non-industrial timber owners account for the remainder of the timberland.

Other land uses include state parks, such as Navarro River Redwoods and Big River State Park; rural residential development along public roads, such as Comptche-Ukiah/Orr Springs, Greenwood Ridge, Navarro Ridge, Little River Airport, and Albion Ridge; and agriculture, such as livestock grazing and vineyards.

### **1.12.2.1 Implications of adding and deleting land**

Forest types for commercial timberlands within the adjustment area are primarily coastal redwood and Douglas fir, with pockets of hardwoods. The vast majority of these lands have been managed for timber production over the last 100 years. The flora, fauna, and geology, as well as current and potential habitat conditions for covered species, are similar throughout the adjustment area.

Although the adjustment area is similar to the plan area, there are inherent differences between the two. Therefore, any addition or deletion of lands will require either a major amendment or minor modification to the HCP/NCCP, as explained in section 1.13. MRC will tabulate the acreage for each addition or deletion of land separately, rather than accumulating the total acreage annually. This will allow the wildlife agencies to review each transaction.

While adding land to or deleting land from the adjustment area should not require MRC to develop new or revised conservation measures, the size of the plan area does impact certain conservation objectives and operational timelines. For additions or deletions of land, MRC may need to revise

- Number of northern spotted owl territories designated most productive (section 10.3.1.2.1).
- Timelines and targets for sediment reduction (section 8.3.3.2.1)
- Schedule for monitoring studies in focus watersheds (section 13.4.3).<sup>5</sup>

We have provided cross-references to specific sub-sections in our HCP/NCCP which address revisions of objectives and timelines as a result of addition or deletion of land because understanding those revisions requires the context and definitions within Chapters 8, 10, and 13.

Finally, if MRC adds to the initial plan area any land on which there are species or natural communities not covered by our HCP/NCCP but protected by the wildlife agencies, such species and communities will be subject to take avoidance and other environmental review.

### **1.12.3 Assessment area**

Species and resources outside the adjustment area may impact species and resources inside the adjustment area. MRC may recognize increases in barred owl occupation and activity within the assessment area, for example, and consult with the wildlife agencies on possible implications for the adjustment area. Likewise, changes in the temperature or sediment load of streams in the assessment area may foreshadow problems for covered aquatic species in the adjustment area. As

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<sup>5</sup> Refer to sections 3.3.1 and 3.3.2 respectively for the definitions of a watershed and a focus watershed.



a result, MRC and the wildlife agencies will evaluate specific resources within the assessment area for impacts to our HCP/NCCP.

### 1.13 Major Amendments and Minor Modifications to the Plan

Refer to Appendix A, *Implementing Agreement*, section 9.0 for a complete description of the HCP/NCCP modification and amendment process, covering, e.g., document corrections; procedures for adding and deleting land from the plan area; minor modifications to survey, monitoring, and reporting protocols; and transfer of incidental take permits as part of land transfer.

MRC may make alterations to the HCP/NCCP through either a major amendment or a minor modification. Examples of such alterations are

- Edits to correct errors (typographical, grammatical, and format).
- Modifications of conservation measures to meet goals and objectives.
- Alterations of monitoring protocols due to technical or scientific advances.
- Addition and deletion of land in the plan area.

With respect to changes in the covered land base through land purchases or sales, the size and timeframe of the transaction determines whether the plan requires a major amendment or minor modification. Focusing on such changes, Table 1-3 shows examples of transactions that trigger the amendment and modification process.

**Table 1-3 Triggers for HCP/NCCP Amendment and Modification Process**

Triggers for HCP/NCCP Amendment and Modification Process	
Major Amendment	Minor Modification
<p style="text-align: center;"><b>Addition of Land</b></p> <ul style="list-style-type: none"> <li>▪ Additions ≥ 10,000 ac in a calendar-year within the adjustment area.</li> <li>▪ Total cumulative additions to the plan area ≥ 53,311 ac (i.e., 25% of 213,244 ac) since the issuance of an ITP.</li> <li>▪ Additions made 60 years after the issuance of an ITP.</li> <li>▪ Re-addition of land deleted from the plan area in the previous 20 years.</li> <li>▪ Addition of land outside the adjustment area.</li> </ul>	<p style="text-align: center;"><b>Addition of Land</b></p> <ul style="list-style-type: none"> <li>▪ Additions &lt;10,000 ac in a calendar year within the adjustment area.</li> </ul>
<p style="text-align: center;"><b>Deletion of Land</b></p> <ul style="list-style-type: none"> <li>▪ Deletions ≥ 10,000 ac in a calendar year.</li> <li>▪ Total cumulative deletions ≥ 31,986 ac (i.e., 15% of 213,244) since the issuance of an ITP.</li> <li>▪ Deletions that significantly alter conservation objectives.</li> <li>▪ Deletion of any portion of LACMA that results in lesser protections for either the deleted or retained areas of LACMA.</li> </ul>	<p style="text-align: center;"><b>Deletion of Land</b></p> <ul style="list-style-type: none"> <li>▪ Deletions &lt;10,000 ac in a calendar year.</li> <li>▪ Reallocation of any portion of covered lands to equal or higher protection, e.g., conservation easements or state and national parks.</li> </ul>
<p style="text-align: center;"><b>Changes Exclusive of Land Base</b></p> <ul style="list-style-type: none"> <li>▪ Additions or deletions of covered species.</li> <li>▪ Substantive changes in conservation</li> </ul>	<p style="text-align: center;"><b>Changes Exclusive of Land Base</b></p> <ul style="list-style-type: none"> <li>▪ Minor changes in monitoring protocols.</li> <li>▪ Clarifications of conservation strategies.</li> </ul>

Triggers for HCP/NCCP Amendment and Modification Process	
Major Amendment	Minor Modification
<p>strategies.</p> <ul style="list-style-type: none"> <li>▪ Editorial changes in the HCP/NCCP that could have substantive effects on the ground.</li> <li>▪ Revision of goals and objectives, except as specified in the HCP/NCCP.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Editorial changes in HCP/NCCP wording or grammar.</li> <li>▪ Minor adjustments, with agency approval, to conservation measures that still meet or exceed their original intent.<sup>6</sup></li> </ul>

### 1.14 Activities Covered in the Plan

Just as MRC must specify the species and lands covered by our HCP/NCCP, we must also specify any activities covered under the plan, as shown in Table 1-4.

**Table 1-4 Covered Activities in the HCP/NCCP**

Covered Activities in the HCP/NCCP	
Category	Activities
Silviculture	<ul style="list-style-type: none"> <li>• Commercial harvesting                      Commercial harvesting is the cutting of trees for sale. In all its various types of harvesting, MRC seeks to retain in the post-harvest stand important structural or biological elements from the pre-harvest stand, such as wildlife trees, old growth trees, and downed logs. The goal is to achieve various ecological, social, and geomorphic objectives with each harvest. The MRC Timber Management Plan (TMP) details how much harvesting is likely to occur under various types of silviculture. While MRC will undoubtedly develop new silvicultural techniques over the course of this plan, our current types of harvest are                     <ul style="list-style-type: none"> <li>▪ Commercial thinning Harvesting trees in a young-growth stand to maintain or increase the average diameter of the residual trees, promote timber growth, and improve forest health.</li> <li>▪ Selection Harvesting trees singly or in small groups to establish and maintain multi-storied uneven-aged stands dominated with conifers.</li> <li>▪ Group selection Harvesting groups of trees covering up to 2.5 ac to establish and maintain multi-storied uneven-aged stands dominated with conifers.</li> <li>▪ Transition Harvesting trees singly or in groups to develop an uneven-aged stand from an even-aged stand or a stand with an irregular or imbalanced proportion of hardwoods-to-conifers.</li> <li>▪ Variable retention Rotation of stands with excessive hardwood competition or stands where the current conifer stocking consists mainly of trees with little growth potential.</li> <li>▪ Seed tree and shelterwood removal Harvesting a portion of the seed trees (i.e., trees that can produce seeds for reforestation) after a fully stocked conifer stand has become established.</li> <li>▪ Rehabilitation Harvesting hardwoods in conifer stands which do not meet minimum stocking standards for conifer dominance.</li> <li>▪ Alternative prescription Harvesting trees by techniques other than those prescribed above.</li> </ul> </li> </ul>

<sup>6</sup> Typically, such adjustments are not site-specific, i.e., they are not unique to a single THP.

Covered Activities in the HCP/NCCP	
Category	Activities
	<ul style="list-style-type: none"> <li>▪ Sanitation and salvage Harvesting dying or dead trees to maintain or improve stand health.</li> </ul>
	<ul style="list-style-type: none"> <li>• Vegetation management Vegetation management is the non-commercial alteration of a stand to promote (a) conifer growth, health, or vigor; or (b) rare plants through the removal of invasive plants. <ul style="list-style-type: none"> <li>▪ Planting Planting occurs mainly during the months of December through March; seedling and cultivar<sup>7</sup> conifers are planted in recently managed stands in order to establish a new stand or age class in a stand. Work is done by hand; access to work areas is by pickup trucks, in accordance with our winter operation guidelines, and by all-terrain vehicles (ATVs).</li> <li>▪ Manual brush and tree removal <ul style="list-style-type: none"> <li>○ Chainsaw Brush and small trees are cut with chainsaws to reduce competition with residual conifers for light, nutrients, and water. These operations are sometimes referred to as chainsaw release, pre-commercial thinning, or clean and release.</li> <li>○ Heavy equipment Heavy equipment is used to remove brush or small hardwood trees where there is little or no conifer regeneration. Winter operations and other restrictions prescribe the use of heavy equipment.</li> </ul> </li> <li>▪ Prescribed burning Prescribed burning is the intentional use of fire to prepare a recently harvested area for planting and habitat restoration or to reduce exotic pests. MRC uses burns in accordance with a site-specific plan and in consultation with the California Department of Forestry and Fire Protection (CAL FIRE) and the Air Quality Management District (AQMD). In general, MRC intends that burns will be small in scale and kept away from sensitive habitats.</li> <li>▪ Slash pile burning Slash pile burning is the planned burning of slash concentrations—usually at landings after timber harvest operations—to reduce fire hazard. This burning is done during the late fall and winter periods in accordance with a permit from the AQMD. Burning takes place outside of fire season as defined by CAL FIRE.</li> </ul> </li> </ul>
Commercial timber operations	<p>Commercial timber operations entail the removal of trees from stands, such as felling; bucking; limbing; yarding; loading and hauling timber; and maintenance of logging equipment. Specific conservation measures within this plan prescribe the use of heavy equipment.</p> <ul style="list-style-type: none"> <li>▪ Felling Felling is the manual use of a chain saw or heavy equipment to sever a standing tree from a stump. Felling occurs away from sensitive habitats, such as snags, old growth, and nest structures, and does not impact the residual stand.</li> <li>▪ Limbing and bucking Limbing and bucking are the manual use of a chain saw or heavy equipment to sever limbs from a bole and cut the bole into predetermined log lengths.</li> <li>▪ Yarding Yarding is the use of heavy equipment to move logs from within a stand to a landing where they are loaded onto trucks for transport to saw mills. Currently, the primary yarding methods are <ul style="list-style-type: none"> <li>○ Tractor Tractors are used to pull logs to the landing.</li> </ul> </li> </ul>

<sup>7</sup> A cultivar is a collection of plants that have been selected or bred for particular characteristics, e.g., resistance to disease. Cultivars may be the result of deliberate or accidental breeding or they may be selections from plants growing naturally in the wild.

Covered Activities in the HCP/NCCP	
Category	Activities
	<ul style="list-style-type: none"> <li>○ Cable Cables are used at a log landing to pull logs from the stand to the landing.</li> <li>○ Helicopter Helicopters are used to lift the logs off the ground and fly them from the stand to the landing.</li> <li>▪ Loading and hauling Loading and hauling are the use of heavy equipment at a landing to load logs onto semi-trucks for transport.</li> <li>▪ Maintenance and refueling of heavy equipment Maintenance and refueling of heavy equipment in the plan area must be carried out (a) at least 100 ft from a watercourse, spring, seep, or wet area; (b) 500 ft from current activity centers of northern spotted owl territories; and (c) 0.25 miles from an occupied marbled murrelet site. The only exception is if equipment breaks and cannot be moved. MRC will observe all applicable county, state, and federal laws when using hazardous waste.</li> </ul>
Roads and landings	Appendix E, <i>Road, Landing, and Skid Trail Standards</i> , specifies use of roads; location and drainage of roads; construction, reconstruction, and maintenance of roads and landings; temporary or permanent road closure; stream-crossings; application of erosion-control measures; and water drafting.
Rock pits and quarries	Within this HCP/NCCP, the terms <i>rock pits</i> and <i>quarries</i> are synonymous. By definition, these terms describe operations in areas where more than 1000 yd <sup>3</sup> of rock have been or will be mined. Although final numbers are dependent upon complete road surveys, MRC estimates that we currently have 99 rock pits across the plan area. Appendix B, <i>HCP/NCCP Atlas</i> (MAPS 14A-C), provides the locations of these rock pits and indicates whether or not they are on a mainline road. Our rock pits range in size from 0.25 ac to 2.5 ac. Depending on the need for rock in the immediate vicinity, the operation levels at a rock pit vary greatly. MRC consistently uses some rock pits—typically, 2 to 5—every year; however, most are used at least once every 5 or 10 years. In any given year, we might mine less than 100 yd <sup>3</sup> or more than 10,000 yd <sup>3</sup> of rock for erosion control and road surfacing. Our HCP/NCCP does not cover the commercial use of rock pits, i.e., the sale of products from the rock pits. Appendix E, <i>Road, Landing, and Skid Trail Standards</i> , details operational standards for rock pits.
Data collection for monitoring	Data collection includes surveys and habitat measurements for covered species. In the process of surveying, MRC conducts various activities, such as banding spotted owls; capturing and handling covered amphibian and fish species; snorkeling; and electro-fishing. Chapter 13, <i>Monitoring and Adaptive Management</i> , details the monitoring strategies for our HCP/NCCP.
Habitat improvement and creation	Instream habitat improvement includes structure placement and replacement, channel realignment, and bedload reduction, as detailed in Chapter 8, <i>Conservation Measures for Aquatic Habitat</i> . Improvement of terrestrial habitat includes control of invasive plants that threaten rare plants; creation and enhancement of amphibian habitat; and creation of habitat for the Point Arena mountain beaver.
Grandfathered THPs	Grandfathered THPs are those approved prior to the issuance of an ITP that are in compliance with the Planning Agreement (see section 2.5.1).

### 1.15 Activities Not Covered in the Plan

Other activities may occur in the plan area that are not covered by our HCP/NCCP and for which incidental take is not authorized. In some cases, MRC conservation measures describe limitations on such activities; discussing these limitations within the context of the conservation measures does not imply these activities are covered activities. The application of pesticides, for example, is not a covered activity but C§10.2.2.3-15—a conservation measure cited in Chapter 10—places

limitations on its use within 150 ft of occupied red-legged frog habitat.<sup>8</sup> Examples of other activities not covered by the HCP/NCCP include removal of trees that are utility hazards; hunting, fishing, and recreating; grazing; harvest of minor forest products (firewood, greenery, and mushrooms); use of MRC roads by parties other than MRC employees, contractors, permittees, or others under the supervision of MRC; and emergency fire suppression by CAL FIRE or other firefighting agencies.

### **1.16 Time Period of the Plan**

MRC seeks an 80-year period for ITPs issued in response to this plan. While this is the time that MRC judges necessary to meet all goals of our HCP/NCCP, it also corresponds to the amount of time required for a majority of our timber stands to reach maturity, primarily with uneven-aged management.

### **1.17 Early Termination**

Appendix A, *Implementing Agreement*, and Appendix Y, *Termination Mitigation*, detail measures that will take effect if MRC terminates the HCP/NCCP before its full 80-year term or transfers land into or out of the plan area.

### **1.18 Planning for Uncertainty**

Uncertainty is part of life. Chapter 14, *Changed and Unforeseen Circumstances*, identifies some of the uncertainties inherent in planning for species and habitat conservation. While this HCP/NCCP was still in draft, MRC employees, along with thousands of Californians, experienced wildfires on an historical scale.

Unexpectedly, the fires came on the first day of summer. Starting on the evening of June 20, 2008 and continuing until the early hours of June 21, a lightning storm swept across California, sparking more than 2000 wildfires in 17 counties and burning about 1.1 million ac state-wide. In Mendocino County alone there were 129 small fires which, over time, combined into larger fires. On June 26, Governor Arnold Schwarzenegger declared a State of Emergency in Mendocino and Shasta Counties. By July 19, an estimated 54,817 ac had burned in Mendocino County. In addition to Mendocino, the hardest hit counties were Shasta and Trinity with 86,500 ac burned and Butte County with 59,400 ac burned.

Just to bring the Mendocino Lightning Complex fires under containment required 1922 fire personnel, including 917 from CAL FIRE. Apart from CAL FIRE, there were volunteer fire-fighters from out-of-state as well as from other countries, such as Australia and Canada. In addition, MRC hired contract fire-fighters from Oregon along with helicopter support. During the month of July, about 200 National Guard troops, camped at Boonville, were also used for fire mop-up. CAL FIRE costs for fighting the fire exceeded \$50 million.

Figure 1-2 illustrates the fires on all MRC land within Mendocino County, not just in the plan area. The green lines show the fire perimeters from June 24-25; the red lines, from July 14-17. The small flame icons, visible on enlarged views of the map, indicate ignition points. The fires reached their ultimate perimeters by July 17, burning about 12% of the MRC land base. Table 1-5 estimates the acreage burned within each inventory block of the plan area, along with the percentage of the inventory block burned.

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<sup>8</sup> Herbicides are a category of pesticides. MRC herbicide applications are in compliance with the ruling in *Washington Toxics Coalition et al. vs. EPA and the American Crop Protection Association et al.*

**Table 1-5 Acres Burned in Plan Area**

<b>Inventory Block</b>	<b>Estimated Acres of Plan Area Burned</b>	<b>Total Acres in Inventory Block</b>	<b>% of Inventory Block Burned</b>
Albion	148	14,786	1.0%
Big River	8	33,468	0.0%
Garcia	6	14,906	0.0%
Navarro East	2406	30,863	7.8%
Navarro West	1384	23,549	5.9%
Rockport	8839	38,427	23.0%
South Coast	9495	34,281	27.7%
Total	22,286	190,281	11.7%

In 2009, we made an assessment of the fire impacts. For clarity, those assessments are flagged with a distinctive icon in the species accounts (Chapters 4-6).



Having learned how the 2008 wildfires affected vegetation, wildlife species, and habitat on MRC forestlands, we incorporated this knowledge into our management practices. The intent of a long-range plan like the HCP/NCCP is to provide continuity even in the face of unexpected events like the Mendocino Lightning Complex of 2008.

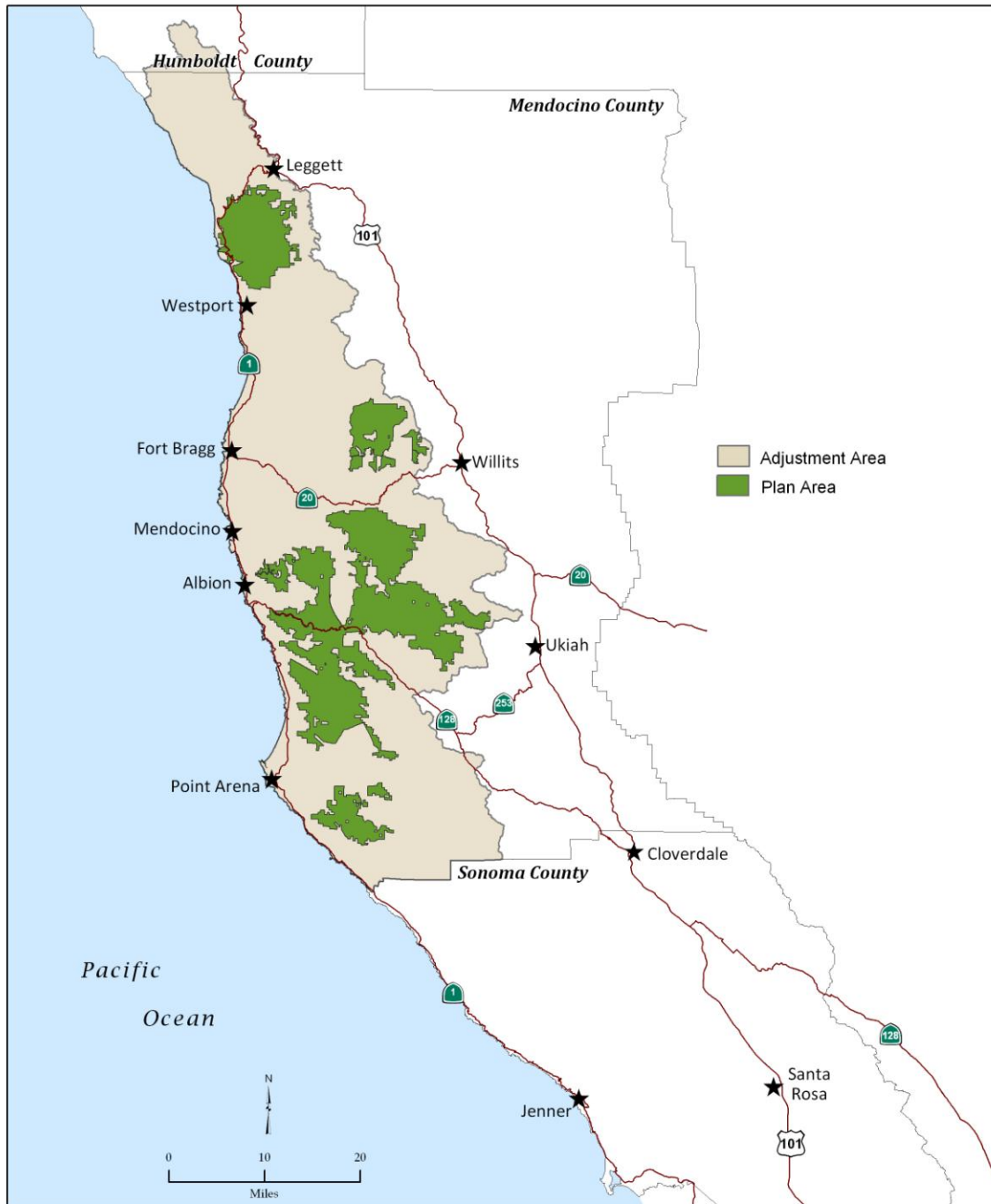


Figure 1-1 Map of HCP/NCCP Plan Area and Adjustment Area

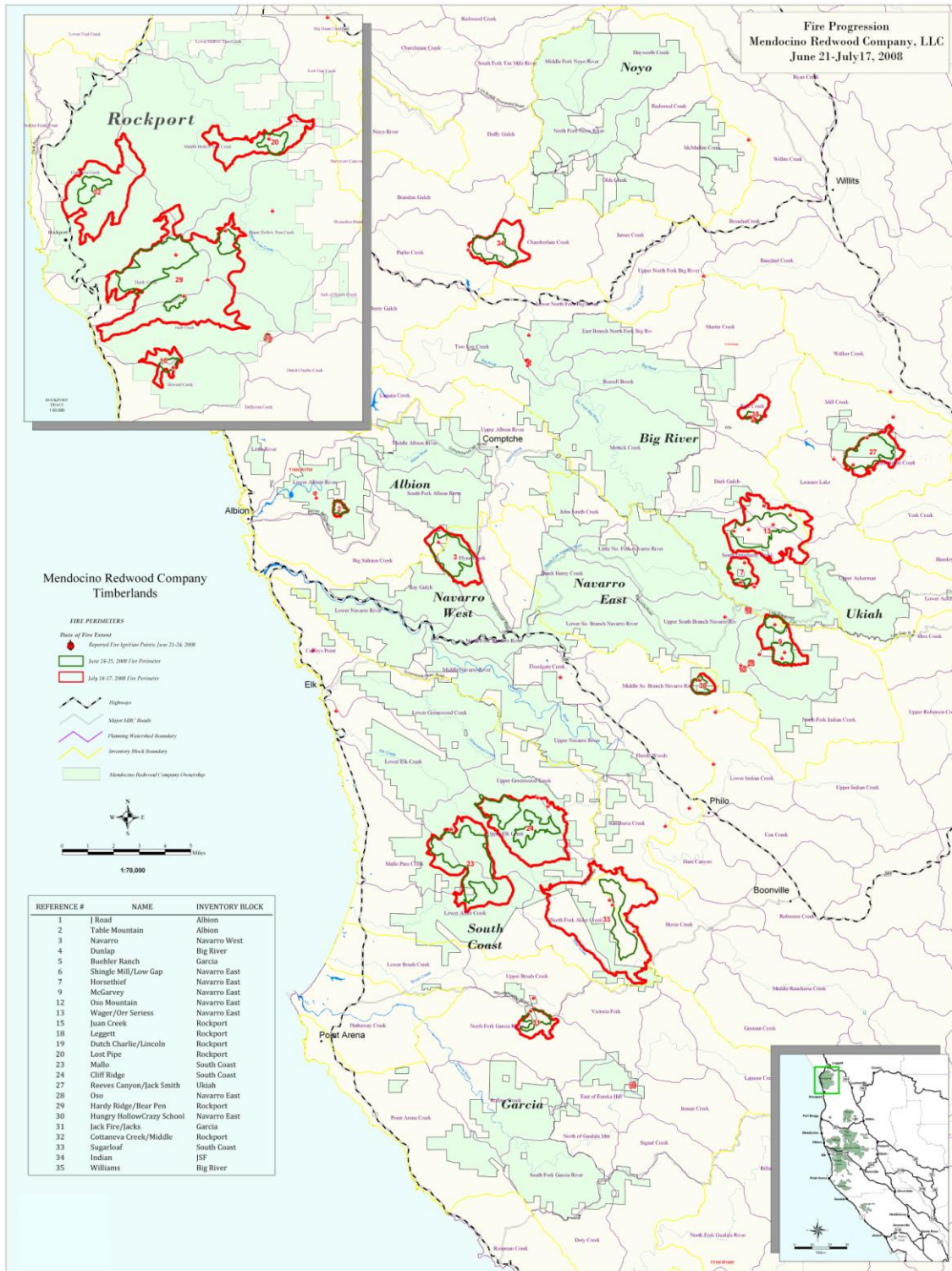


Figure 1-2 Fire Progression and Perimeters