Siskiyou County
Planning Commission Staff Report
February 18, 2026

Agenda Item Number 3
Acer Klamath Forest Zone Change (Z-24-06)

Applicant:
John Vona
FWS Forestry Services California, LLC
1910 Market Street, Suite C
Redding, CA 96001

Property Owner:
Acer Klamath Forest, LLC
315 Montgomery Street, Suite 1003
San Francisco, CA 94104

Project Summary
The project is a proposed zone change affecting approximately 2,600 acres of forested land owned by Acer Klamath Forest LLC, from Agricultural zoning classifications (AG-1 and AG-2) to the Timberland Production Zone (TPZ). The requested zone change is intended to align the zoning designation with the existing and long-term use of the property for commercial timber management.

Location:
The project site is located off Shovel Circle and Rock Springs Road, north and west of the city of Montague, on APN's 004-170-130, 004-150-040, 004-150-100, 004-160-010, 004-160-030, 004-160-020, 004-170-020 and 004-170-030; Township 46N, Range 6W, Section 14, 15, 16, 21, 22, 23, 26, 27 M.D.M; Latitude 41.823°, Longitude -122.292°.

General Plan:
Erosion Hazard; Building Foundation Limitations: High Shrink Behavior Soils; Severe Septic Tank Limitations; Slope; Critical Deer Wintering Area; and Wildfire Hazard.

Zoning:
Prime Agricultural, 40-acre minimum parcel size (AG-1-B-40)
Non-Prime Agricultural, 40-acre minimum parcel size (AG-2-B-40)

Exhibits:

A. Resolution PC 2026-002
   A Resolution of the Planning Commission of the County of Siskiyou, State of California, Recommending that the Board of Supervisors Determine the Project Exempt from the California Environmental Quality Act and Approve the Acer Klamath Forest, LLC Zone Change (Z-24-06)
   - A-1. Recommended Findings
   - A-2. Notations and Recommended Conditions of Approval

B. Comments Received
C. Specific Forest Management Plan (November 11, 2025)
D. General Forest Management Plan (7-1-2022; Edits 8-2-2023)
E. RPF Certification of List C Conformance
F. Resolution Adopting Criteria for "List C" Timber Preserve Zoning (April 11, 1978)

Background

Current and Historical Conditions

In 2021, the subject parcels, consisting of approximately 2,600 acres of forested land were acquired by Acer Klamath Forest, LLC from the Fruit Growers Supply Company and were subject to Williamson Act Contracts No. 72030A and 72077A.

Williamson Act Contract	APN	Acreage
72030A	004-170-130	280
72077A	004-150-040	640
72077A	004-150-100	160
72077A	004-160-010	160
72077A	004-160-020	160
72077A	004-160-030	640
72077A	004-160-040	360
72077A	004-170-020	40
72077A	004-170-030	160
		2,600

Upon transfer of ownership, continuation of Williamson Act status requires execution of a new contract by the successor owner. Acer Klamath Forest, LLC elected not to enter into replacement contracts, and the Board of Supervisors subsequently approved issuance of a Notice of Non-Renewal for Contract Nos. 72030A and 72077A applicable to the subject parcels.

Prior to expiration of the existing Williamson Act contracts, the applicant proposes to rezone the subject parcels from Prime and Non-Prime Agricultural (AG-1-B-40 and AG-2-B-40) to Timberland Production Zone (TPZ) in order to better align the zoning designation with the historic, existing, and long-term use of the property for timber production and forest management. The parcels are part of the larger Acer Klamath Forest holdings in Siskiyou County and are being managed as timberlands in accordance with the California Forest Practice Act and Forest Practice Rules.

The parcels are served by an established network of private and public roads suitable for forest management activities. Timber operations on the property are subject to review and regulation by CAL FIRE through the Timber Harvest Plan (THP) process, which functions as the functional equivalent of environmental review under CEQA for timber harvesting activities.

No residential or commercial development is proposed as part of this zone change, and the property remains undeveloped with respect to habitable structures.

Adjacent Parcels

Direction	Acreage	Zoning	Uses
North	480	Federal Lands	Klamath National Forest
South	320	AG-2-B-40	Timber production/Acer Klamath Forest LLC
East	1320	Federal Lands	Klamath National Forest
West	1120	AG-2-B-40	Private Ownership/Middendorf Trustees

The project site is surrounded primarily by timberlands, agricultural lands, and federal forest lands. The Klamath National Forest is to the north and east. Parcels to the south are owned by Acer Klamath Forest, LLC and are managed for timber production. Parcels to the west are under private ownership. Surrounding land uses are consistent with long-term resource management and are compatible with the proposed Timberland Production Zone designation.

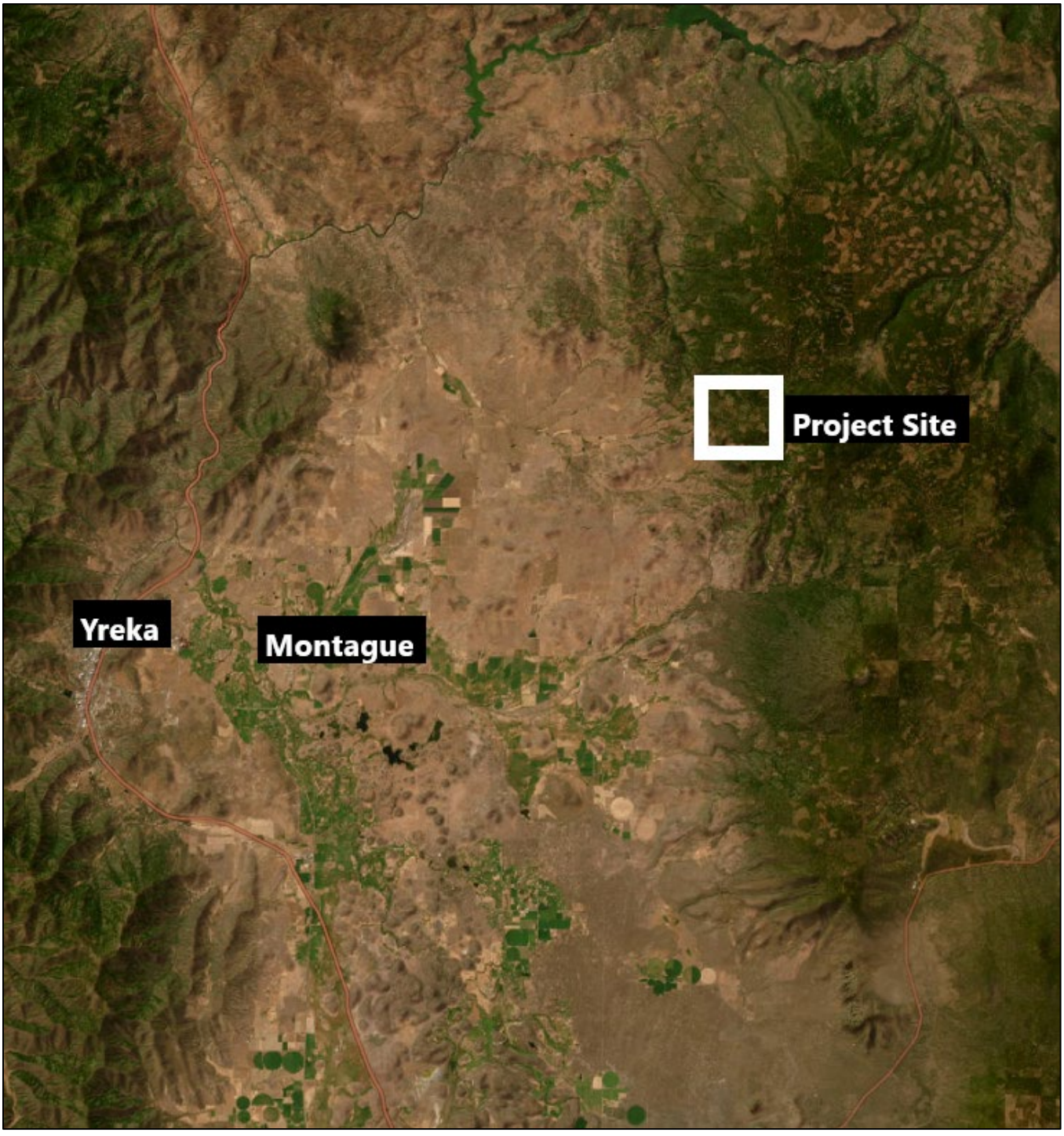
Parcel Creation and Ownership History

APNs 004-150-040; 004-150-100; 004-160-010; 004-160-020; 004-160-030; 004-160-040; 004-170-020; and 004-170-030 (T46N, R4W, M.D.M., Sections 14, 15, 16, 21, 22, 23, 26, and 27):

Bureau of Land Management (BLM) General Land Office records reflect a Serial Patent issued to the State of California on November 5, 1880, pursuant to the California Enabling Act of March 3, 1853 (10 Stat. 244). The patent record describes approximately 4,320 acres within Townships 46 and 47 North, Ranges 3 and 4 West, Mount Diablo Base and Meridian, including lands within Siskiyou County, and is identified as BLM Serial No. CACAAA 000001 80. The Public Land Survey System (PLSS) legal descriptions for the subject parcels are consistent with lands conveyed through early patent-era federal conveyances. Parcels originating from these patent-era conveyances predate the Subdivision Map Act and constitute legally created parcels.

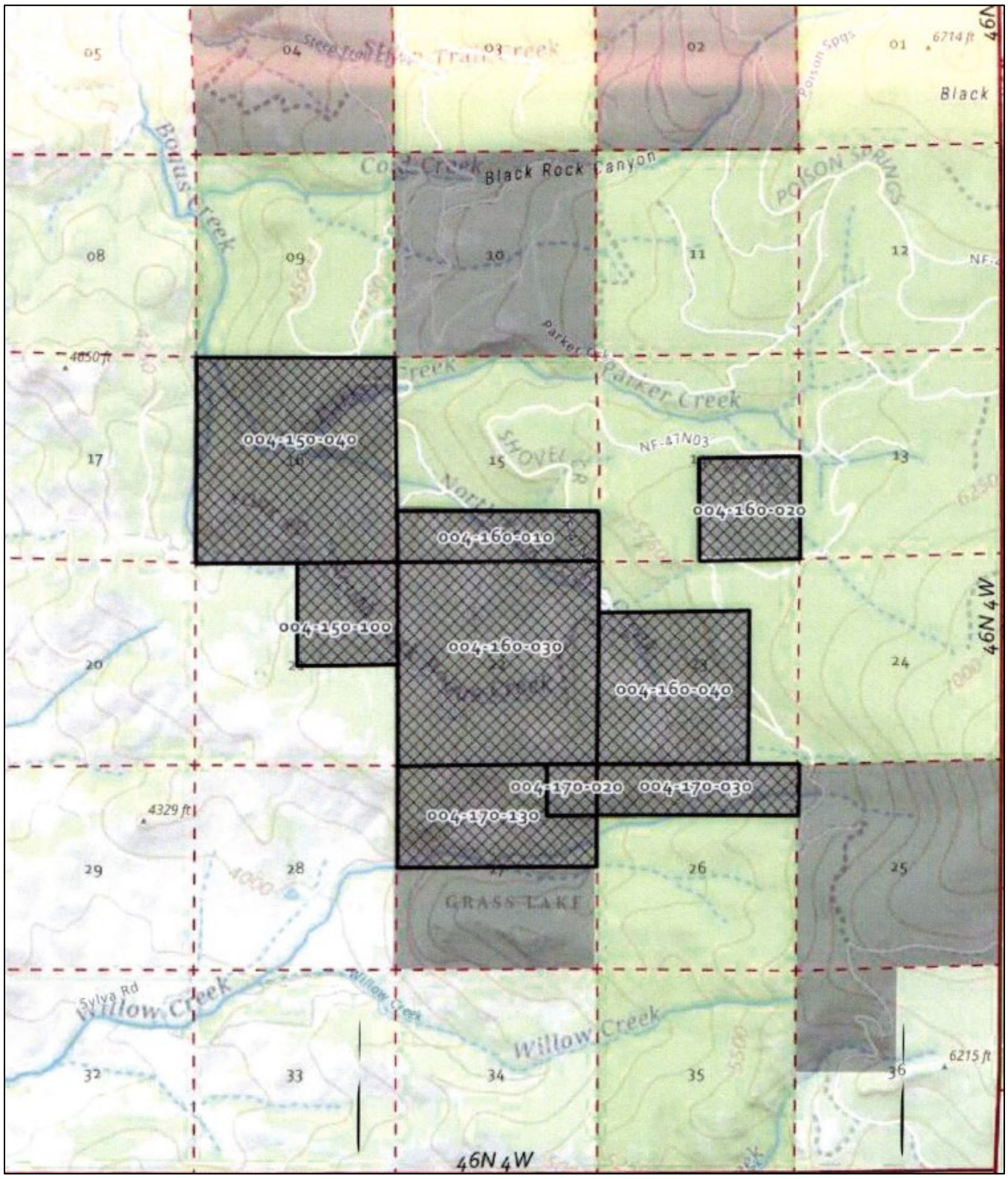
APN 004-170-130 (T46N, R4W, M.D.M., Section 27):

BLM General Land Office records also reflect a Serial Patent issued on December 13, 1895 to the Central Pacific Railroad Company, pursuant to the federal railroad grant authority of July 25, 1866 (Grant—Railroad, Oregon & California, 14 Stat. 239). The patent record is identified as Accession No. CACAAA 008491 / BLM Serial No. CACAAA 008491, is not cancelled, and describes a conveyance totaling approximately 58,396.71 acres in Siskiyou County by PLSS aliquot parts across multiple townships and sections within the Mount Diablo Base and Meridian. The legal descriptions for APN 004-170-130 (Section 27, T46N, R4W, M.D.M.) are consistent with lands conveyed through railroad-era patent conveyances. Parcels originating from these patent-era conveyances predate the Subdivision Map Act and constitute legally created parcels.

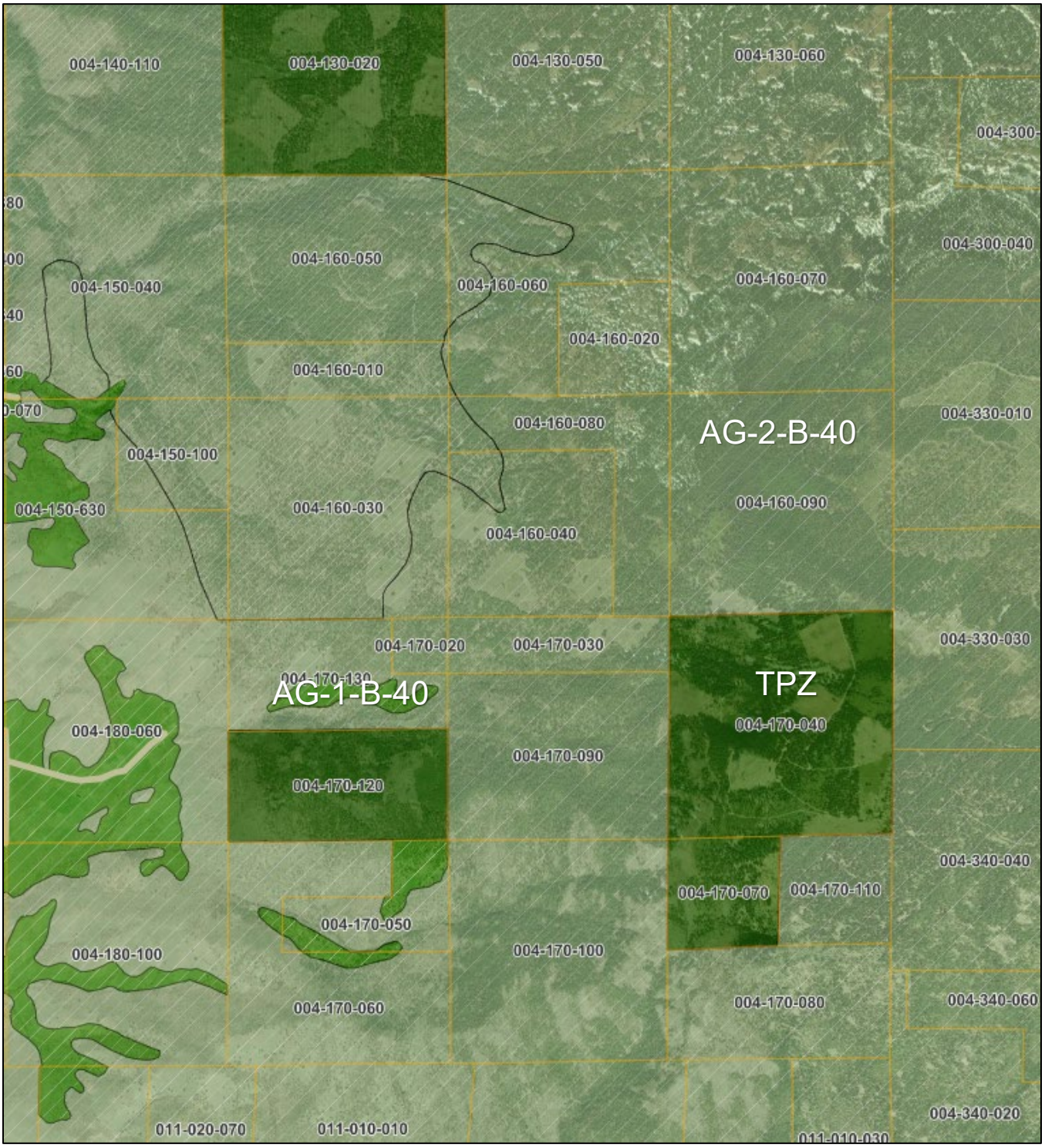


Location Map

Satellite Map



Topographic Map


004-140-110
004-130-020
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004-300-
004-300-040
004-160-050
004-150-040
004-160-060
004-160-070
004-160-020
004-160-010
004-330-010
004-160-080
AG-2-B-40
004-150-100
004-150-630
004-160-030
004-160-090
004-160-040
004-330-030
004-170-020
004-170-030
004-170-130
AG-1-B-40
TPZ
004-180-060
004-170-040
004-170-090
004-170-120
004-340-040
004-170-070
004-170-110
004-170-050
004-180-100
004-170-100
004-170-080
004-340-060
004-170-060
011-020-070
011-010-010
011-010-030
004-340-020

Zoning Map

Wildlife Species and Waterways

Review of available biological information indicates that the project area provides habitat typical of mixed conifer forestlands in the Klamath Mountain region. Wildlife species commonly associated with these habitats include deer, elk, black bear, small mammals, and a variety of bird species adapted to forested environments. Northern spotted owl surveys have been conducted on portions of the project area in connection with prior timber management activities conducted pursuant to the California Forest Practice Rules.

A review of the California Natural Diversity Database (CNDDB) identifies Yreka phlox (*Phlox hirsuta*) as occurring within the project area. Yreka phlox is a low-growing perennial wildflower listed as endangered under both the California Endangered Species Act (CESA) and the federal Endangered Species Act; therefore, killing or possessing the plant is prohibited. It blooms from April through June, producing rose-pink to white flowers, and typically grows 2 to 6 inches tall with hairy leaves and stems arising from a woody base. The species is restricted to the Yreka area in Siskiyou County and is found in open habitats on dry serpentine soils at elevations of approximately 2,700 to 4,400 feet.

Major waterways in the vicinity of the project area include Bogus Creek, Parker Creek, and Willow Creek, which contribute to regional riparian and aquatic habitat conditions typical of managed forest landscapes.

The proposed project involves a change in zoning designation only and does not authorize ground disturbance, timber harvesting, or development. Any future timber operations would be subject to separate environmental review and permitting through the Timber Harvest Plan process, which includes evaluation of potential impacts to wildlife resources and sensitive species.

Soil Conditions

Review of Siskiyou County Geographic Information System (GIS) data and Natural Resources Conservation Service (NRCS) soil mapping indicates that the project site is dominated by upland forest soils typical of the Klamath Mountain region. Predominant soil units mapped across the subject parcels include *Pinehurst stony loam*, *Bogus stony* and *very stony loam*, *Lassen–Kuck complexes*, *Lassen clay*, and *Medford clay loam*. These soils generally occur on moderate to steep slopes, commonly ranging from 15 to 50 percent, and are characterized by stony or very stony surface conditions, shallow to moderate soil depths, and moderate to severe erosion potential.

NRCS soil classifications indicate that the majority of soils within the project area are not designated as prime farmland.

Of the approximately 2,600 acres proposed for TPZ designation, less than 100 acres are currently zoned AG-1-B-40, with the remainder zoned AG-2-B-40. The limited acreage zoned AG-1-B-40 lacks access to surface water or groundwater supplies suitable for irrigation, and no agricultural water infrastructure is present.

At a parcel scale, the mapped soil and water availability conditions support long-term forest production and reflect the property's existing use for commercial timber management.

List C Eligibility and Site Class Analysis

Pursuant to Siskiyou County's Resolution Adopting Criteria for "List C" Timber Preserve Zoning (April 11, 1978), parcels not identified on List A or List B may be zoned Timberland Production Zone (TPZ) if they meet the County's minimum acreage and site-class equivalency standards. These standards are

expressed in terms of Site Class III equivalents. Under the County's adopted equivalency table, Site Class IV timberland qualifies at a minimum threshold of 80 acres.

With the exception of APN 004-160-020, which is separated from the remaining parcels by lands administered as part of the Klamath National Forest, the subject parcels are under common ownership and are largely contiguous. For purposes of List C eligibility, the parcels are appropriately evaluated as part of a single, integrated timber ownership, consistent with County practice for professionally managed forestlands. The presence of intervening public land does not alter the parcels' management intent, site capability, or eligibility for TPZ designation.

Based on the most current Timberland Site Classification mapping and stand-level inventory data contained in the Acer Klamath Forest – Willow Creek Forest Management Plan (*See Exhibit C*), prepared by FWS Forestry Services under the direction of a Registered Professional Forester, the parcels proposed for TPZ designation include approximately 1,200 acres of Site Class IV timberland. When evaluated collectively as part of a unified timber ownership, the Site Class IV acreage alone substantially exceeds the County's minimum 80-acre threshold required for List C eligibility. Smaller areas of higher-productivity Site Class III timberland and lower-productivity Site Class V timberland are also present, along with typical non-timber features such as roads and riparian corridors.

Non-timber features such as roads, riparian areas, and other minor non-stocked areas are normal and expected components of managed forestland and do not preclude TPZ eligibility. The dominant land use of the subject parcels is commercial timber management, and the parcels are managed as part of a larger, professionally managed forest ownership intended for long-term timber production.

Based on the foregoing, Planning staff finds that the subject parcels meet the minimum acreage, site-class equivalency, and management criteria for inclusion under List C.

Analysis

General Plan Consistency

The Land Use Element of the Siskiyou County General Plan identifies the project site as being within the mapped resource overlay areas for Erosion Hazard; Building Foundation Limitations: High Shrink Behavior Soils; Severe Septic Tank Limitations; Slope; Critical Deer Wintering Area; and Wildfire Hazard. Planning staff has identified that Composite Overall Policies 41.3(e), 41.3(f), 41.9, 41.12, 41.13, and 41.18 apply to the proposed project.

Planning staff has conducted an analysis of the required findings and recommends that the Planning Commission find the proposed project consistent with the applicable General Plan policies governing the subject site. Additionally, the proposed zoning designation is compatible with surrounding land uses, is served by existing roadway access adequate for ongoing timber management activities and public health and safety needs and does not authorize activities that would result in environmental impacts to on- or off-site resources. The recommended findings are detailed in the General Plan Consistency Findings section of Exhibit A-1 attached to this staff report and are submitted for the commissioners' review, consideration, and approval.

Zoning Consistency

The subject parcels are zoned Prime Agricultural District 40-acre minimum parcel size (AG-1-B-40) and Non-Prime Agricultural District 40-acre minimum parcel size (AG-2-B-40). After the proposed zone change, the parcels would be rezoned to Timberland Production Zone (TPZ).

Government Code Section 51104(f) defines "timberland" as privately owned land devoted to and used for growing and harvesting timber and capable of growing an average annual volume of wood fiber of at least 15 cubic feet per acre.

> *Based on timberland site classification mapping prepared under the supervision of a Registered Professional Forester, the subject parcels include approximately 1,200 acres of Site Class IV timberland, substantially exceeding the County's minimum acreage threshold for List C eligibility. Site Class IV timberland reflects commercial forest productivity and supports the finding that the parcels are capable of meeting the timberland definition under Government Code §51104(f).*

Pursuant to Government Code section 51113(c)(3)(A), parcels proposed for Timberland Production Zone (TPZ) designation are required to meet the timber stocking standards set forth in Public Resources Code section 4561 and the California Forest Practice Rules (2024). In addition, Siskiyou County Code section 10-6.5102 identifies the growing and harvesting of timber as permitted uses within the TPZ District.

> *Based on the Registered Professional Forester certification and timberland site classification data contained in the Forest Management Plan, the subject parcels appear to meet the applicable timber stocking standards. Accordingly, rezoning the property from AG-1-B-40 and AG-2-B-40 to TPZ is consistent with state law, County zoning regulations, and the long-term management of the property for commercial timber production.*

Based on staff's analysis of the proposed zone change, staff believes that the necessary findings can be made for the approval of this application.

Environmental Review

The proposed project—rezoning property to the Timberland Production Zone (TPZ)—is eligible for the statutory exemption set forth in CEQA Guidelines Section 15264 (Timberland Preserves). Government Code Section 51119 reflects the Legislature's determination that the adoption of timberland production zoning, by itself, does not result in significant environmental impacts.

The zone change is a zoning action only and does not authorize specific timber harvest activities, ground disturbance, or physical development, all of which would remain subject to separate regulatory review and permitting.

In addition, a Timber Harvest Plan (THP), as approved by CAL FIRE under the California Forest Practice Act, serves as the functional equivalent of an Environmental Impact Report (EIR) under the California Environmental Quality Act (CEQA) for industrial timber harvesting activities on private lands.

Comments

A Notice of Public Hearing was published in the Siskiyou Daily News and mailed to property owners within 300 feet of the applicant's property. At the time this staff report was prepared, no public comments had been received.

A Preliminary Project Review was circulated to Siskiyou County Reviewing Agencies and State Responsible Agencies.

Siskiyou County Environmental Health – October 2, 2025

Environmental Health has no objection to the proposed zone change. Parcels have not been reviewed for buildability at this time.

Department of Forestry and Fire Protection (CAL FIRE) – December 30, 2025

CAL FIRE has no comment regarding change in zoning for this project. CAL FIRE requires future building on the parcel to be compliant with Public Resources Code Section 4290.

Siskiyou County Public Works – January 6, 2026

Public Works has no objection to the proposed zone change.

Planning Staff Recommendations

Adopt Resolution PC 2026-002 taking the following actions:

1. Recommend the Board of Supervisors determine the project to be statutorily exempt from the California Environmental Quality Act (CEQA) in accordance with CEQA Guidelines Section 15264 (Timberland Preserves); and
2. Recommend that the Board of Supervisors approve the Acer Klamath Forest LLC Zone Change (Z-24-06) based on the recommended findings and subject to the recommended conditions of approval.

Suggested Motion

"I move that we adopt Resolution PC 2026-002, a resolution of the Planning Commission of the County of Siskiyou, State of California, recommending that the Board of Supervisors determine the project to be statutorily exempt from CEQA and approve the Acer Klamath Forest LLC Zone Change Request (Z-24-06)."

Preparation

Prepared by the Siskiyou County Planning Division. For project specific information, please contact:

James Phelps
Siskiyou County Planning Division
806 S. Main Street
Yreka, California 96097

Resolution PC 2026-002

A Resolution of the Planning Commission of the County of Siskiyou, State of California, Recommending that the Board of Supervisors Determine the Project Exempt from the California Environmental Quality Act and Approve the Acer Klamath Forest LLC Zone Change (Z-24-06)

Whereas, an application has been received from Acer Klamath Forest LLC to rezone approximately 2,600 acres of land from Prime Agricultural, 40-acre minimum parcel size (AG-1-B-40), and Non-Prime Agricultural, 40-acre minimum parcel size (AG-2-B-40), to Timberland Production Zone (TPZ); and

Whereas, the proposed zone change applies to the entirety of the following legally created Assessor's Parcel Numbers: 004-150-040, 004-150-100, 004-160-010, 004-160-020, 004-160-030, 004-160-040, 004-170-020, 004-170-030, and 004-170-130; and

Whereas, the Planning Division reviewed the project and recommended that it be determined statutorily exempt from the California Environmental Quality Act pursuant to CEQA Guidelines Section 15264 (Timberland Preserves); and

Whereas, notice of the public hearing for the Acer Klamath Forest LLC Zone Change (Z-24-06) was published in the Siskiyou Daily News; and

Whereas, public hearing notices were provided in compliance with Siskiyou County Code Section 10-6.2805 et seq.; and

Whereas, the Planning Division presented its written and oral staff report regarding the Acer Klamath Forest LLC Zone Change (Z-24-06) at a regular meeting of the Siskiyou County Planning Commission on February 18, 2026; and

Whereas, the Planning Division recommended that the Planning Commission forward a recommendation to the Board of Supervisors to adopt the findings set forth in Exhibit A-1 and approve the Acer Klamath Forest LLC Zone Change (Z-24-06); and

Whereas, on February 18, 2026, the Chair of the Planning Commission opened the duly noticed public hearing on the Acer Klamath Forest LLC Zone Change (Z-24-06) to receive oral and written testimony, after which the public hearing was closed and the Planning Commission deliberated on the project prior to reaching its decision.

Now, Therefore, Be It Resolved that the Siskiyou County Planning Commission hereby adopts the recommended findings set forth in Exhibit A-1, attached hereto and incorporated by reference; and

Be It Further Resolved that, based on the evidence in the record and the findings set forth in Exhibit A-1, the Planning Commission recommends that the Siskiyou County Board of Supervisors determine the project to be statutorily exempt from CEQA pursuant to CEQA Guidelines Section 15264 and approve the Acer Klamath Forest LLC Zone Change (Z-24-06).

It is Hereby Certified that the foregoing Resolution PC 2026-002 was duly adopted on a motion by Commissioner _____ and seconded by Commissioner _____ at a regular meeting of the Siskiyou County Planning Commission held on the 18th day of February 2026, by the following roll call vote:

Ayes:

Noes:

Absent:

Abstain:

Siskiyou County Planning Commission

_____

Jeff Fowle, Chair

Witness, my hand and seal this 18th day of February 2026

_____

Hailey Lang, Secretary of the Commission

Findings

Zoning Consistency Findings

1. The Planning Commission finds that the proposed zone change is consistent with the applicable elements and policies of the Siskiyou County General Plan, as documented in the administrative record and the associated staff report.
2. The Planning Commission finds that the proposed zone change is consistent with Siskiyou County Code Title 10, Chapter 6, including provisions governing the Timberland Production Zone (TPZ).
3. The Planning Commission finds that the proposed zone change from the Prime Agricultural District, 40-acre minimum parcel size (AG-1-B-40), and the Non-Prime Agricultural District, 40-acre minimum parcel size (AG-2-B-40), to the Timberland Production Zone (TPZ) is consistent with existing land uses in the surrounding area.
4. The Planning Commission finds that the proposed zone change is compatible with the surrounding zoning pattern, which includes adjacent and nearby lands designated Timberland Production Zone (TPZ).
5. The Planning Commission has considered all written and oral testimony received and, based on the administrative record and staff analysis, finds that the proposed zone change would be compatible with existing and planned land uses in the area.

Timberland Production Zone Inclusion

1. Pursuant to Government Code Section 51104(f), “timberland” is defined as privately owned land devoted to and used for the growing and harvesting of timber, or for growing and harvesting of timber and compatible uses, and capable of growing an average annual volume of wood fiber of at least 15 cubic feet per acre. The Planning Commission finds that the parcels proposed to be rezoned meet this definition.

2. The Planning Commission finds that pursuant to Siskiyou County Code §10-6.5104(b), the parcels proposed to be rezoned meet the minimum standards adopted by resolution of the Board of Supervisors for inclusion under List C of the Timberland Production Zone (TPZ).

3. The Planning Commission finds that the parcels meet the timber stocking standards set forth in Government Code Section 51113(c)(3)(A), Public Resources Code Section 4561, and the California Forest Practice Rules.

General Plan Consistency Findings

Composite Overall Policies

Policy 41.3(e) – All proposed uses of the land shall be clearly compatible with the surrounding and planned uses of the area.

> *The Planning Commission finds that timber production is consistent with the historic and existing use of the parcels and is clearly compatible with the surrounding and planned land uses of the area.*

Policy 41.3(f) – All proposed uses of the land may only be allowed if they clearly will not be disruptive or destroy the intent of protecting each mapped resource.

> *The Planning Commission finds that the proposed zone change does not authorize development and, as a zoning action, will not disrupt mapped resources.*

Policy 41.9 – Buildable, safe access must exist to all proposed uses of land. The access must also be adequate to accommodate the immediate and cumulative traffic impacts of the proposed development.

> *The Planning Commission finds that the proposed zone change does not authorize new development. Existing access via public and private roads is adequate for existing timber management activities.*

Policy 41.12 – All significant historic and prehistoric places and features when identified shall be preserved and protected in accordance with accepted professional practices.

> *The Planning Commission finds that no known significant historic or prehistoric resources have been identified on the parcels. Any future discovery shall be addressed in accordance with accepted professional practices.*

Policy 41.13 – All rare and endangered plant species as identified and recognized by state and federal government shall be preserved and protected in accordance with accepted professional practices.

> *The Planning Commission finds that sensitive species protections are addressed through the Forest Management Plan and applicable state and federal regulations governing timber operations.*

Policy 41.18 – Conformance with all policies in the Land Use Element shall be provided, documented, and demonstrated before the County may make a decision on any proposed development.

> *The Planning Commission finds that the proposed zone change is consistent with applicable General Plan policies. Any future development shall be subject to separate discretionary review.*

Map 2: Erosion Hazard

Policy 7 – Specific mitigation measures will be provided that lessen soil erosion, including contour grading, channelization, revegetation of disturbed slopes and soils, and project timing (where feasible) to lessen the effect of seasonal factors such as rainfall and wind.

The Planning Commission finds that the proposed zone change does not authorize physical development and therefore does not result in erosion-related impacts.

Map 4: Soils: Severe Septic Tank Limitations

Policy 9 – The minimum parcel size shall be one acre on zero to 15 percent slope and five acres on 16 to 29 percent slope.

The Planning Commission finds that the parcels comprise approximately 2,600 acres and exceed the minimum parcel size requirements. No development is proposed.

Policy 10 – Single-family residential, heavy or light industrial, heavy or light commercial, open space, non-profit and non-organizational in nature recreational uses, commercial/recreational uses, and public or quasi-public uses only may be permitted.

The permitted density will not create erosion or sedimentation problems.

The Planning Commission finds that the proposed zone change does not authorize development and therefore will not result in erosion or sedimentation impacts.

Map 5: Excessive Slope

Policy 11 – All areas with 30 percent or greater natural slope shall not be developed with facilities requiring septic tanks for sewage disposal.

The Planning Commission finds that no development is proposed as part of this project.

Policy 15 – Areas designated as having 30 percent or greater natural slope, but proven to be less than 30 percent slope, shall only be developed when a grading plan for roads acceptable to the Department of Public Works has been submitted.

The Planning Commission finds that no development is proposed as part of this project.

Map 10: Wildfire Hazard

Policy 30 – All development proposed within a wildfire hazard area shall be designed to provide safe ingress, egress, and have an adequate water supply for fire suppression purposes in accordance with the degree of wildfire hazard.

The Planning Commission finds that the proposed zone change does not authorize development. Any future development shall be required to comply with applicable fire

safe standards enacted pursuant to Public Resources Code Section 4290 and California Code of Regulations, Title 14, Fire Safe Regulations, to the satisfaction of CAL FIRE.

Map 11: Woodland Productivity

Policy 31 – The minimum parcel size shall be one acre on zero to 15 percent slope and five acres on 16 to 29 percent slope.

The Planning Commission finds that the existing parcels contain approximately 2,600 acres with varying slopes, which exceeds the minimum parcel size requirements. Parcel acreage will not change as a result of this project.

Policy 32 – Single family residential, light commercial, light industrial, open space, non-profit and non-organizational in nature recreational uses, commercial/recreational uses, and public or quasi-public uses only may be permitted.

The permitted uses will not create erosion or sedimentation problems.

The Planning Commission finds that uses allowed under the Timberland Production Zone are intended to support long-term timber production and do not, by themselves, authorize activities that would create erosion or sedimentation impacts.

Policy 33 – All land uses and densities shall be designed so as not to destroy timber productivity on large parcels of high suitability woodland soils. (Class I and II.)

The Planning Commission finds that the proposed zone change to the Timberland Production Zone will not destroy timber productivity, will not alter parcel size, and that the parcels are not classified as Class I or Class II woodland soil.

California Environmental Quality Act (CEQA) Findings

1. The Planning Commission finds that the proposed zone change qualifies for the statutory exemption set forth in CEQA Guidelines Section 15264 (Timberland Preserves) and recommends that the Board of Supervisors determine the project to be statutorily exempt from the California Environmental Quality Act (CEQA).

Exhibit A-2 to Resolution PC 2026-002
Notations and Conditions of Approval

Notations

1. Within ten (10) days following the date of the decision of the Siskiyou County Planning Commission, the decision may be appealed to the Siskiyou County Board of Supervisors. Any appeal shall be filed with the Clerk of the Board of Supervisors.
2. Upon adoption of the CEQA exemption, a check in the amount of fifty dollars ($50), made payable to the Siskiyou County Clerk and submitted to the Siskiyou County Planning Division, is required in order to file a Notice of Exemption. Failure to file the Notice of Exemption extends the statute of limitations for legal challenges to the CEQA exemption from 35 days to 180 days.

Conditions of Approval

1. The project shall substantially conform to the project description reviewed by the Planning Commission on February 18, 2026, and subsequently approved by the Siskiyou County Board of Supervisors. Any proposed amendment shall be submitted to the Deputy Director of Planning for a determination of the applicable review process pursuant to the Siskiyou County Code.
2. The applicant shall defend, indemnify, and hold harmless the County, its agents, officers, and employees from any claim, action, or proceeding (collectively, “Action”) against the County, its agents (including consultants), officers, or employees to attack, set aside, void, or annul the approvals, or any part thereof, or any decision, determination, or Action, made or taken approving, supplementing, or sustaining the project or any part thereof, or any related approvals or project conditions imposed by the County or any of its agencies, departments, commissions, agents (including consultants), officers, or employees, concerning the project, or to impose personal liability against such agents (including consultants), officers, or employees resulting from their non-negligent involvement in the project, which action is brought within the time period provided by law, including any claim for private attorney general fees claimed by or awarded to any party from the County. Said responsibilities shall be pursuant to the County’s standard Agreement for Indemnification in effect at the time of application approval or Agreement for Indemnification if signed and effective prior to the date the application is approved. In the event that the applicant fails to comply with the terms of the applicable agreement, the applicant does hereby consent and agree to all remedies in said agreement and does hereby agree and consent to the County rescinding all applicable project approvals.

SISKIYOU COUNTY COMMUNITY DEVELOPMENT DEPARTMENT
LAND DEVELOPMENT REVIEW

OWNER ACER KLAMATH FOREST LLC **FILE #** 004-170-130, ET AL SEE ATTACHED LIST

LOCATION ROCK SPRINGS RD/WILLOW CREEK, MONTAGUE **T** 46N , **R** 6W , **SEC.** 14,15 **PD#** Z-24-06

REQUIREMENTS:

Sewage Disposal Test/Information:

( ) None Required: Connection to Approved Sewage System
( ) Engineered Percolation Tests – Parcels #
( ) Wet Weather Testing
( ) Engineered Sewage Disposal System
( ) Other

Water Supply Tests/Information:

( ) None Required: Connection to Approved Water System
( ) Well Logs (Existing Wells) ( ) Well Logs for Adjoining Property
( ) Drilled Well – Parcels # ( ) Spring Source-Verification
( ) Pump Test (Static Level) Hours
( ) Bacteriological Analysis ( ) Chemical Analysis ( ) Physical Analysis
( ) Other

Project Information:

( ) Location Map ( ) Mark Project Area ( ) Contour Map
( ) Food Establishment Plans ( ) Swim Pool/Spa Plans
( ) Waste Information (Non-Sewage)
( ) Other

Comments/Conditions:

Environmental Health has no objection to the proposed zone change.

All parcels are undeveloped and have not been reviewed or approved for buildability at this time for sewer and water.

REHS DATE 10/2/25

ENVIRONMENTAL HEALTH ACTION

(x) Application Accepted ( ) Application Rejected as Incomplete (see comments)

****

(x) Approved ( ) Recommended for Denial
(x) Approved with conditions (see comments)

REHS DATE 10/2/25

Date sent to Planning:

DEPARTMENT OF FORESTRY AND FIRE PROTECTION
P.O. Box 128
1809 Fairlane Road
YREKA, CA 96097-0128
(530) 842-3516
Website: www.fire.ca.gov

Date: 12/30/2025

Siskiyou County Department of Public
Health and Community Development
806 South Main Street
Yreka, CA 96097-3321

Attention: Dianne Johnson, Permit Planning Technician

Subject: Zoning Change: Z-24-06 Acer Klamath Forest

CAL FIRE has no comment regarding change in zoning for this project. CAL FIRE requires future building on the parcel to be compliant with the applicable code sections of Public Resource Code 4290.

If you have any questions, please call Heather Tharp at 530-598-2676 or Lilly Rivera at 530-598-2635.

Heather Tharp
Forestry Technican

For: Greg Roath
Siskiyou Unit Chief

Attachment cc: file

From: Terry E. Smith
To: Dianne Johnson
Cc: Jeremy Lipke
Subject: RE: Z-24-06 15 DAY REVIEW PACKET REVISED
Date: Tuesday, January 6, 2026 9:06:26 AM

Dianne,
We have reviewed the attached proposed Zoning change and haven't any comments.

Terry E. Smith P.E.
Senior Engineer
County of Siskiyou
Department of Public Works
1312 Fairlane Road, Suite 3
Yreka, CA 96097
Office: (530) 842-8278
Fax: (530) 842-8288
tesmith@co.siskiyou.ca.us

From: Dianne Johnson <dmjohnson@co.siskiyou.ca.us>
Sent: Friday, December 26, 2025 1:38 PM
To: Tharp, Heather@CALFIRE <heather.tharp@fire.ca.gov>; Rivera, Liliana@CALFIRE <liliana.rivera@fire.ca.gov>; Jess Harris <jharris@co.siskiyou.ca.us>; Wildlife R1 CEQA Redding <r1ceqaredding@wildlife.ca.gov>; Craig Kay <ckay@co.siskiyou.ca.us>; Eric Olson <eolson@co.siskiyou.ca.us>; Garrett Richardson <grichardson@co.siskiyou.ca.us>; Jeff Clausen <jclausen@co.siskiyou.ca.us>; Jennifer Taylor <jtaylor@co.siskiyou.ca.us>; Jeremy Lipke <jlipke@co.siskiyou.ca.us>; Klev Hegdal <khegdal@co.siskiyou.ca.us>; Monique George <mgeorge@co.siskiyou.ca.us>; Terry E. Smith <tesmith@co.siskiyou.ca.us>
Cc: James V. Phelps <jvphelps@co.siskiyou.ca.us>
Subject: Z-24-06 15 DAY REVIEW PACKET REVISED

Good afternoon,

There was a small revision made to the previous packet sent for application Z-24-06. All responses to the application must be received by January 13, 2026.

Should you require more information please feel free to contact me.

Thank you,

Dianne Johnson
Planning Permit Technician II
Siskiyou County Community Development
806 S. Main Street, Yreka, CA 96097
530-841-2148

Forest Management Plan

Zone Change Application

Acer Klamath Forest, LLC

Willow Creek Parcels

Application Z2406

November 11, 2025

Prepared by:

John Vona & Ann Wagner,
FWS Forestry Services California, LLC
On Behalf of Clients, Acer Klamath Forest,
LLC 1910 Market Street, Suite C
Redding, CA 96001

This site plan contain maps depicting the following:

- Management Plan
- Overview Map
- County Parcel APNs
- Parcel Acres
- Public Land Survey System Coordinates
- Scale
- Location of Roads & Streams
- Timber types
- Site Class
- Acres of stocked areas
- Acres of non-stocked/non-forest areas

Proposed Management Plan for the parcels requesting to be converted to TPZ.

All parcels in this TPZ application have legal access off public roads to the parcels included in this request. Furthermore, access is well established with clear roads and the parcel appurtenant roads are accessible and drivable by vehicular traffic for forest management.

The parcels included in this application range consist of well managed conifer stands that are managed under the California Forest Practice Act (FPA) and the Forest Practice Rules (FPRs). These rules ensure timberland management is conducted in a way that protects the environment, including fish, wildlife, forests, soils, water resources and viewshed. The conifer growing on these parcels are managed to meet the long-term sustained yield objectives of the owners across the entire 255,000 acre Acer Klamath Forest footprint. The California Forest Practice Rules requires that landowners demonstrate their operations meet the requirement to ensure maximum sustained production of timber while also considering environmental values. The agency body who oversees and enforces the CA FPRs is the California Department of Forestry and Fire Protection (CalFIRE).

Under the CA FPRs we are required that any even-aged harvest shall meet full conifer stocking at the fifth year after harvest. Our records indicate that all the stands included in this application have meet the legal requirements for “stocking” under the State FPRs which would have been signed off by a CalFIRE inspector.

Timber stands are inventoried when approach maturity at age 40 years-old. Stands older than 40 years-old have all been inventoried at some point in the last 10 to 12 years across the entire forested footprint. The inventory data collected from “timber cruising” is maintained in a sophisticated Growth & Yield software system that systematically grows the inventoried stands every year based on an algorithm developed from measurement of permanent plots.

The growth & yield system that we employ to manage Acer’s inventory is the Forest Vegetation Simulator (FVS), which is a forest growth simulation model. The software simulates forest vegetation change in response to natural succession, disturbances, and management. It recognizes all major tree species and can simulate nearly any type of management or disturbance at any time during the simulation. Outputs include tree volumes, biomass, density, canopy cover, harvest yields, fire effects, and more.

Harvests are determined based on series of analyses that evaluate the financial needs of the landowners, the Option A document on file with CalFIRE which projects the 100-year harvest of the forest as well as the long-term sustainability of the forest and a myriad of other complicating factors. The decision on when and where to harvest is followed up by

the preparation of a Timber Harvest Plan (THP). In California, a Timber Harvest Plan (THP) is considered the functional equivalent of an Environmental Impact Report (EIR) under the California Environmental Quality Act (CEQA) for industrial timber harvest on private lands. This means that a THP is designed to serve the same purpose as an EIR, which is to ensure that the state understands the potential environmental impacts of a project before making a decision to approve it.

Harvesting of these stands will occur at economic maturity and in accordance with the California Forest Practice Rules. The site indices published in the accompanying stand list provides foresters with an indication of site productivity. Stands with site index of 1 and 2 possess much more productive soils and the stands with this designation will grow more rapidly in both height and diameter. It is expected that stands with site indices of 1 and high Site 2 will be ready to harvest at age 50 to 60 years of age. Low site 2 and 3 will grow more slowly and we expect these stands to be ready to harvest at 60 to 75 years of age. Site 4 and 5 reflect more challenging growing conditions and typically possess thinner, rocky soils with a poor nutrients and essential mineral profile. These stands occur generally on high rocky and exposed ridges. Stands with low sites may not be achieve economic maturity until 80 to 100 years of age.

In terms of qualifications, FWS Forestry Services manages all aspects of the Acer Klamath Forest estate on behalf of the owners. FWS Forestry Services is the California subsidiary of F&W Forestry, based out of Albany Georgia. F&W Forestry started consulting with landowners in 1962 and currently manages approximately 2.7 million acres of timberlands on behalf of clients throughout North America and Europe. The organization consists of highly trained professionals with the average professional experience of 20+ years.

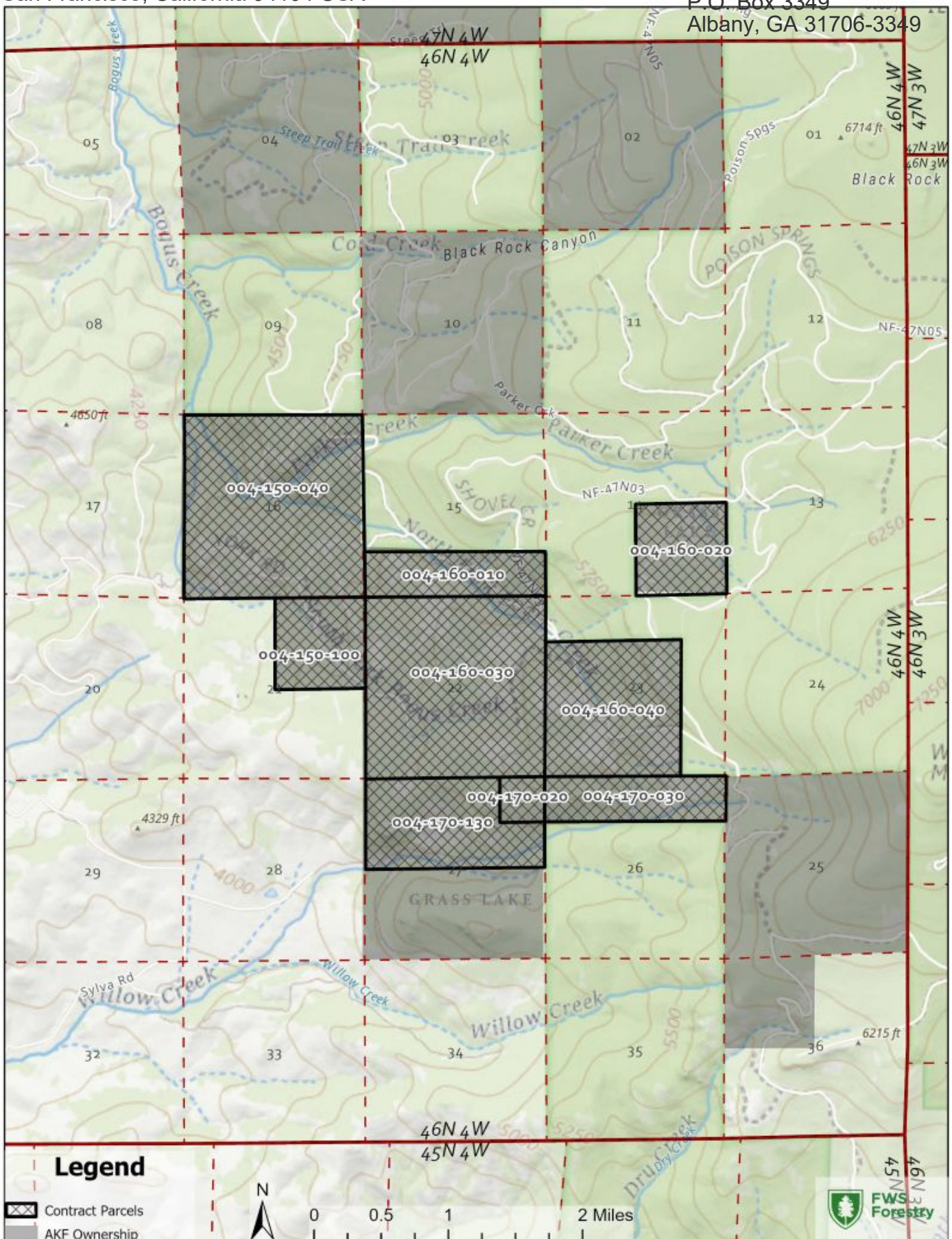
Below is a table of the parcels in the Z2406 Application:

Acer Klamath Forest - Willow Creek Parcels				
Present Use	Re-Zone Request	Assessors Parcel	Acreage	Legacy Owner
Timber	Timberland Production Zone	004-150-040	640	Fruit Growers
Timber	Timberland Production Zone	004-150-100	160	Fruit Growers
Timber	Timberland Production Zone	004-160-010	160	Fruit Growers
Timber	Timberland Production Zone	004-160-020	160	Fruit Growers
Timber	Timberland Production Zone	004-160-030	640	Fruit Growers
Timber	Timberland Production Zone	004-160-040	360	Fruit Growers
Timber	Timberland Production Zone	004-170-020	40	Fruit Growers
Timber	Timberland Production Zone	004-170-030	160	Fruit Growers
Timber	Timberland Production Zone	004-170-130	280	Fruit Growers

Landowner's Legal Name: Acer Klamath Forest, LLC

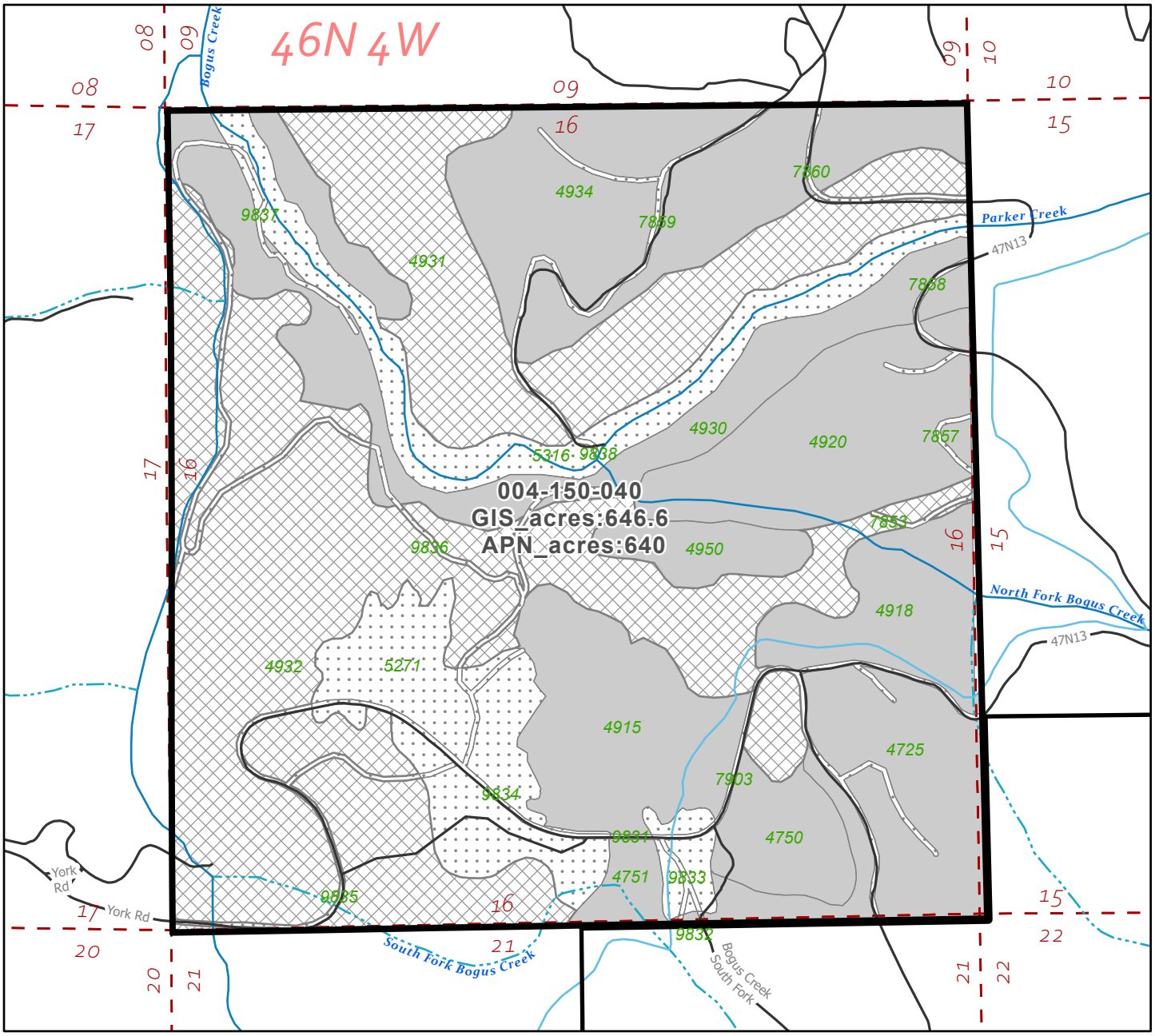
Legal Address: 315 Montgomery Street, Suite 1003
San Francisco, California 94104 USA

Mailing Address:
F&W Forestry Services
c/o Property Tax Administration
P.O. Box 3349
Albany, GA 31706-3349



APN: 004-150-040

Map Date:11/11/2025



Stand	Management	Land Use	Stand Gross Acres	Stand Parcel Acres	Site Class	Age
AKF004725	Uneven	TMBR	131.2	38.7	V	Unknown
AKF004750	Uneven	TMBR	14.5	14.5	III	Unknown
AKF004751	Uneven	TMBR	93.6	5.8	IV	Unknown
AKF004915	Uneven	TMBR	37.2	37.3	V	Unknown
AKF004918	Uneven	TMBR	23.9	23.8	V	Unknown
AKF004920	Uneven	TMBR	42.2	42.3	V	Unknown
AKF004930	Uneven	TMBR	52.5	52	V	Unknown
AKF004931	Uneven	TMBR	75.8	75.3	V	Unknown
AKF004932	Uneven	TMBR	179.2	177.2	V	Unknown
AKF004934	Uneven	TMBR	67.1	66.4	IV	Unknown
AKF004950	Uneven	TMBR	10.4	10.4	V	Unknown
AKF005271	None	NONT	42.5	42.5		Unknown
AKF005316	None	NONT	33.3	33.2		Unknown
AKF007853	None	ROAD	0.5	0.5		Unknown

Stand	Management	Land Use	Stand Gross Acres	Stand Parcel Acres	Site Class	Age
AKF007857	None	ROAD	0.4	0.4		Unknown
AKF007858	None	ROAD	1	1		Unknown
AKF007859	None	ROAD	3.3	3.3		Unknown
AKF007860	None	ROAD	1.1	1.1		Unknown
AKF007903	None	ROAD	55.3	4		Unknown
AKF009831	None	ROAD	0.2	0.2		Unknown
AKF009832	None	ROAD	0.3	0		Unknown
AKF009833	None	ROAD	0.8	0.8		Unknown
AKF009834	None	ROAD	2.5	2.5		Unknown
AKF009835	None	ROAD	2.7	2.7		Unknown
AKF009836	None	ROAD	5.9	5.9		Unknown
AKF009837	None	ROAD	1.1	1.1		Unknown
AKF009838	None	ROAD	0.1	0.1		Unknown

Local Roads

PLSS Township

PLSS FirstDivision

Application Parcel

Timber Stands

Low Volume Timber/ Plantation

Timbered

Non-Timbered

N

Scale: 1:12,000

1 inch equals 0.19 miles

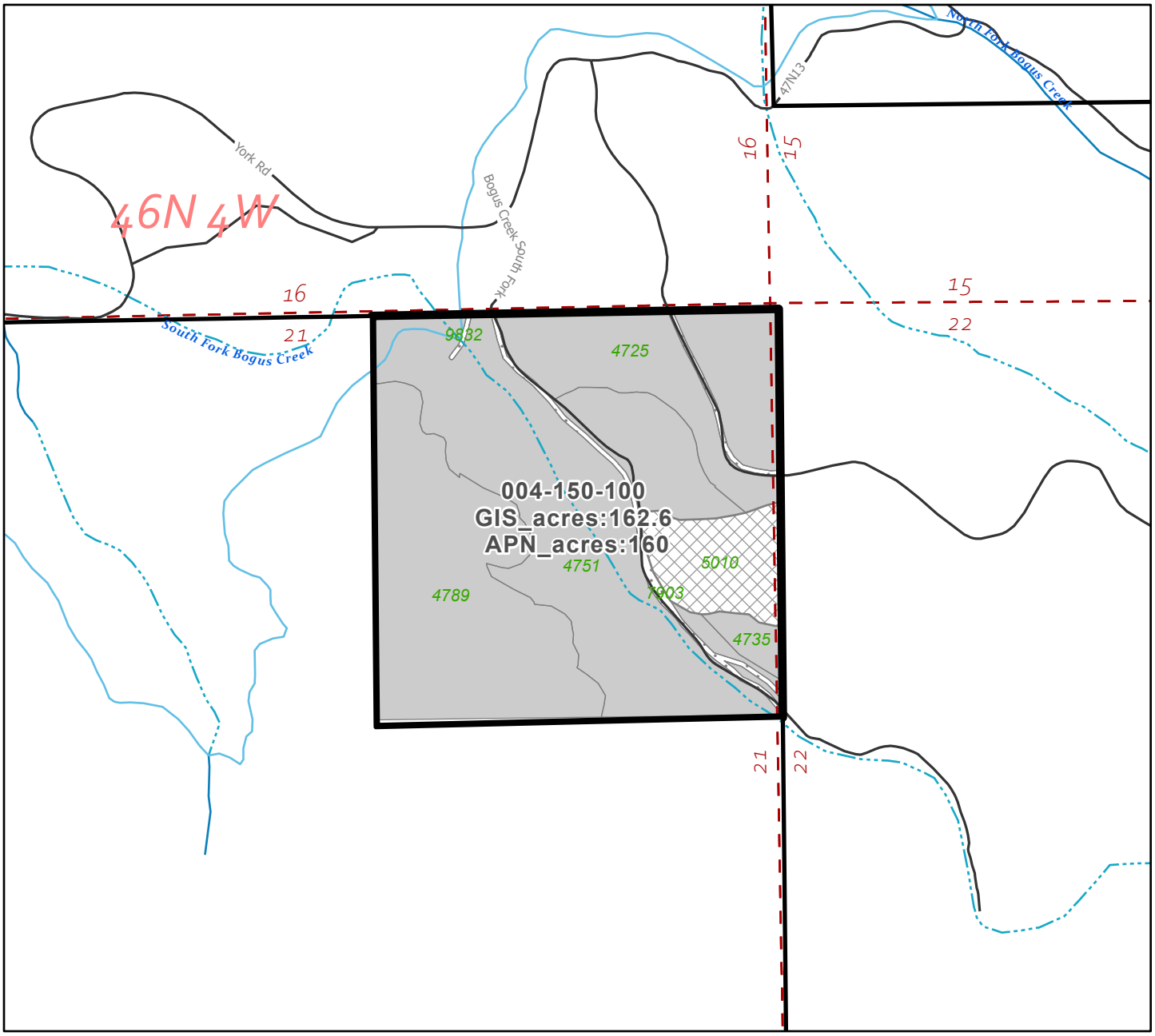
FWS Forestry

Prepared by: Ann Wagner, FWS Forestry

Exhibit C - Specific Forest Management Plan **027**

APN: 004-150-100

Map Date:11/11/2025



Stand	Management	Land Use	Stand Gross Acres	Stand Parcel Acres	Site Class	Age
AKF004725	Uneven	TMBR	131.2	29.4	V	Unknown
AKF004735	Uneven	TMBR	94.4	2.8	V	Unknown
AKF004751	Uneven	TMBR	93.6	65.9	IV	Unknown
AKF004789	Uneven	TMBR	46.8	46	V	Unknown
AKF005010	Even	TMBR	27.6	12.6	III	16
AKF007903	None	ROAD	55.3	3.9		Unknown
AKF009832	None	ROAD	0.3	0.2		Unknown

Local Roads

PLSS Township

PLSS FirstDivision

Application Parcel

Timber Stands

Low Volume Timber/ Plantation

Timbered

Non-Timbered

N

Scale: 1:12,000

1 inch equals 0.19 miles

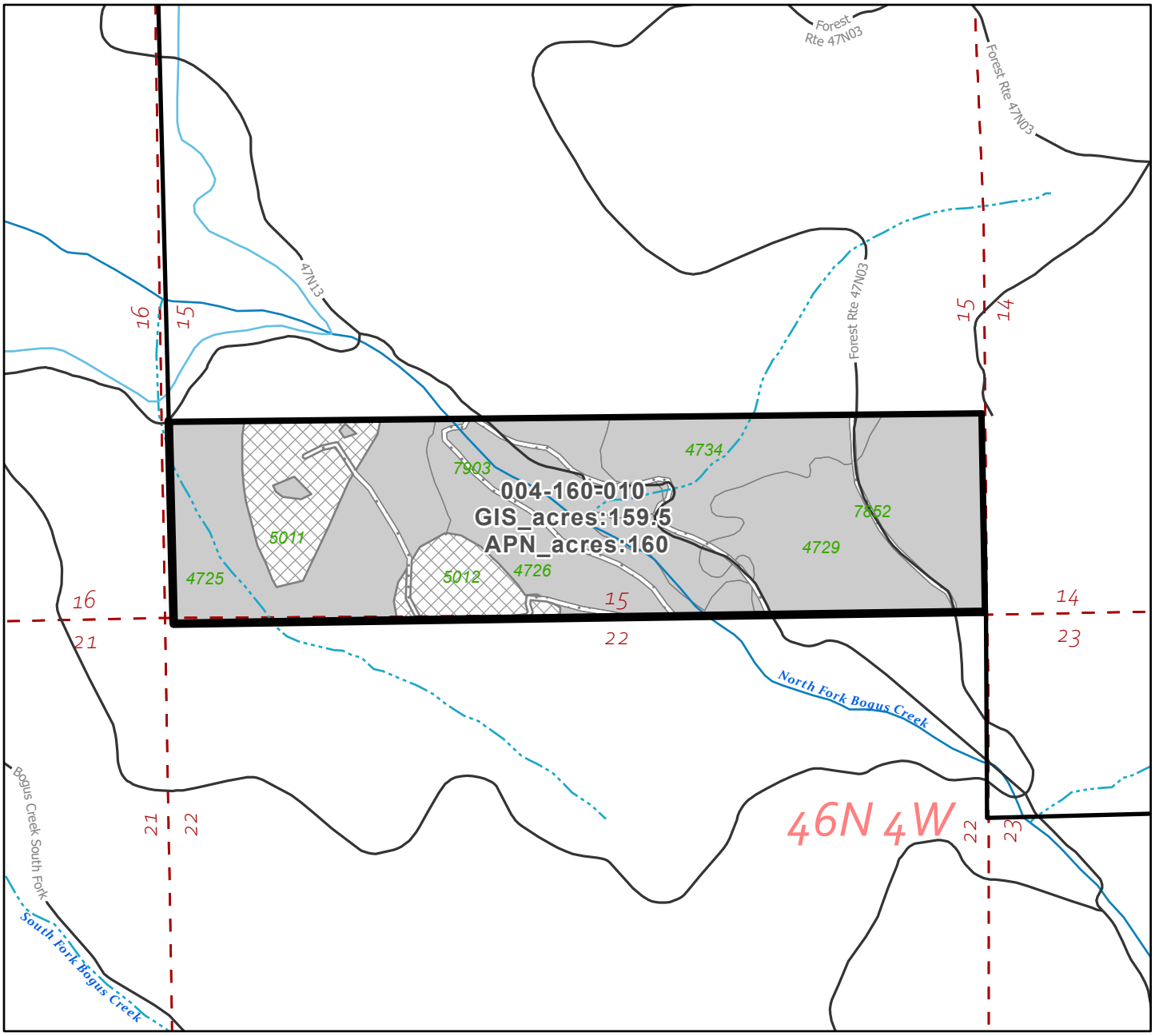
FWS Forestry

Prepared by: Ann Wagner, FWS Forestry

Exhibit C - Specific Forest Management Plan **028**

APN: 004-160-010

Map Date:11/11/2025



Stand	Management	Land Use	Stand Gross Acres	Stand Parcel Acres	Site Class	Age
AKF004725	Uneven	TMBR	131.2	35.5	V	Unknown
AKF004726	Uneven	TMBR	61.5	31.5	IV	Unknown
AKF004729	Uneven	TMBR	54.9	40.7	IV	Unknown
AKF004734	Uneven	TMBR	25.9	23.9	III	Unknown
AKF005011	Even	TMBR	16	13.6	II	15
AKF005012	Even	TMBR	31.4	8.4	II	15
AKF007852	None	ROAD	1.6	1.1		Unknown
AKF007903	None	ROAD	55.3	5		Unknown

Local Roads

PLSS Township

PLSS FirstDivision

Application Parcel

Timber Stands

Low Volume Timber/ Plantation

Timbered

Non-Timbered

N

Scale: 1:12,000

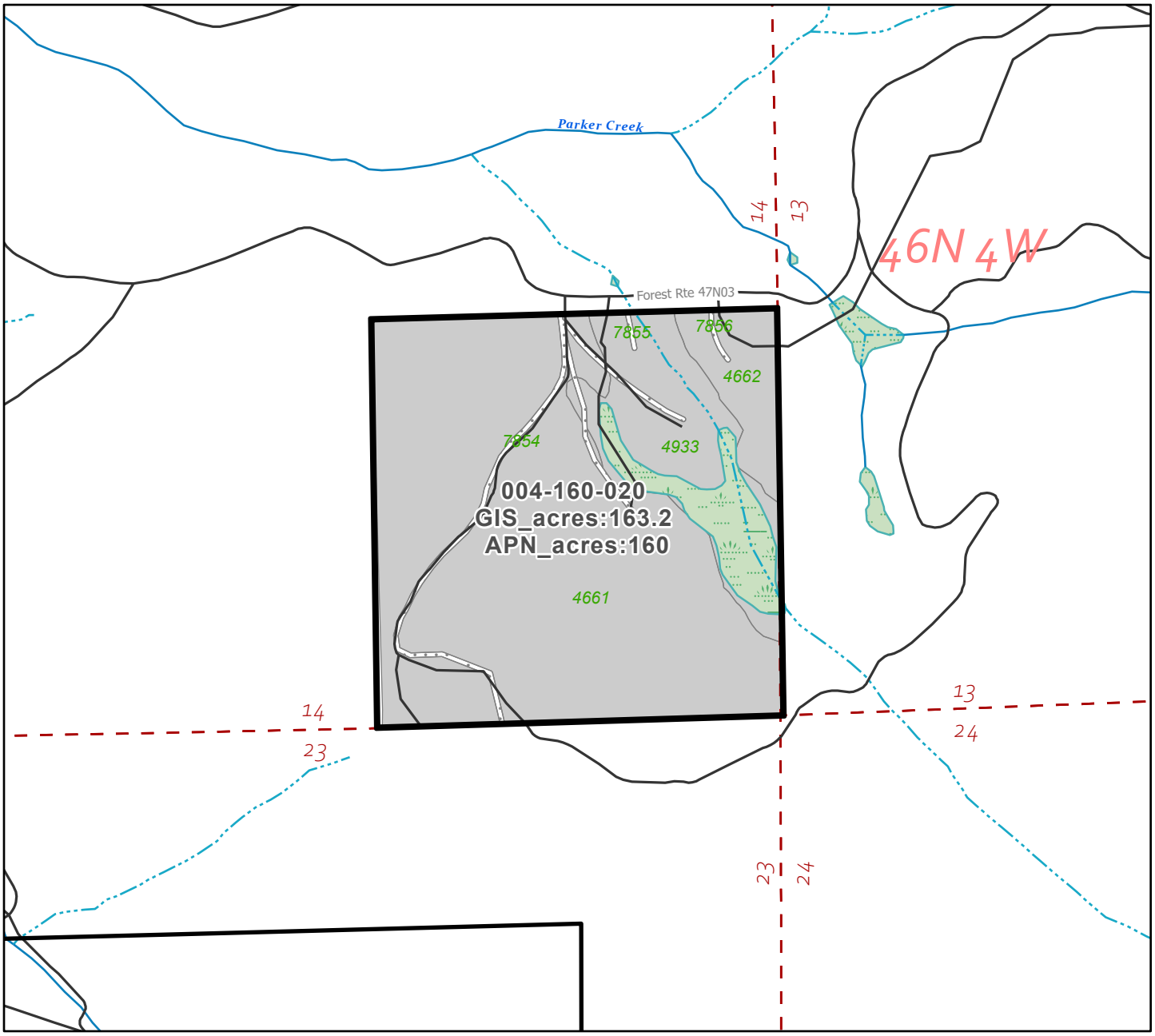
1 inch equals 0.19 miles

FWS Forestry

Prepared by: Ann Wagner, FWS Forestry

APN: 004-160-020

Map Date:11/11/2025



Stand	Management	Land Use	Stand Gross Acres	Stand Parcel Acres	Site Class	Age
AKF004661	Uneven	TMBR	116.6	115.4	IV	Unknown
AKF004662	Uneven	TMBR	11.4	10.7	V	Unknown
AKF004933	Uneven	TMBR	30	29.5	V	Unknown
AKF007854	None	ROAD	4	4		Unknown
AKF007855	None	ROAD	0.2	0.2		Unknown
AKF007856	None	ROAD	0.3	0.3		Unknown

Local Roads

PLSS Township

PLSS FirstDivision

Application Parcel

Timber Stands

Low Volume Timber/ Plantation

Timbered

Non-Timbered

N

Scale: 1:12,000

1 inch equals 0.19 miles

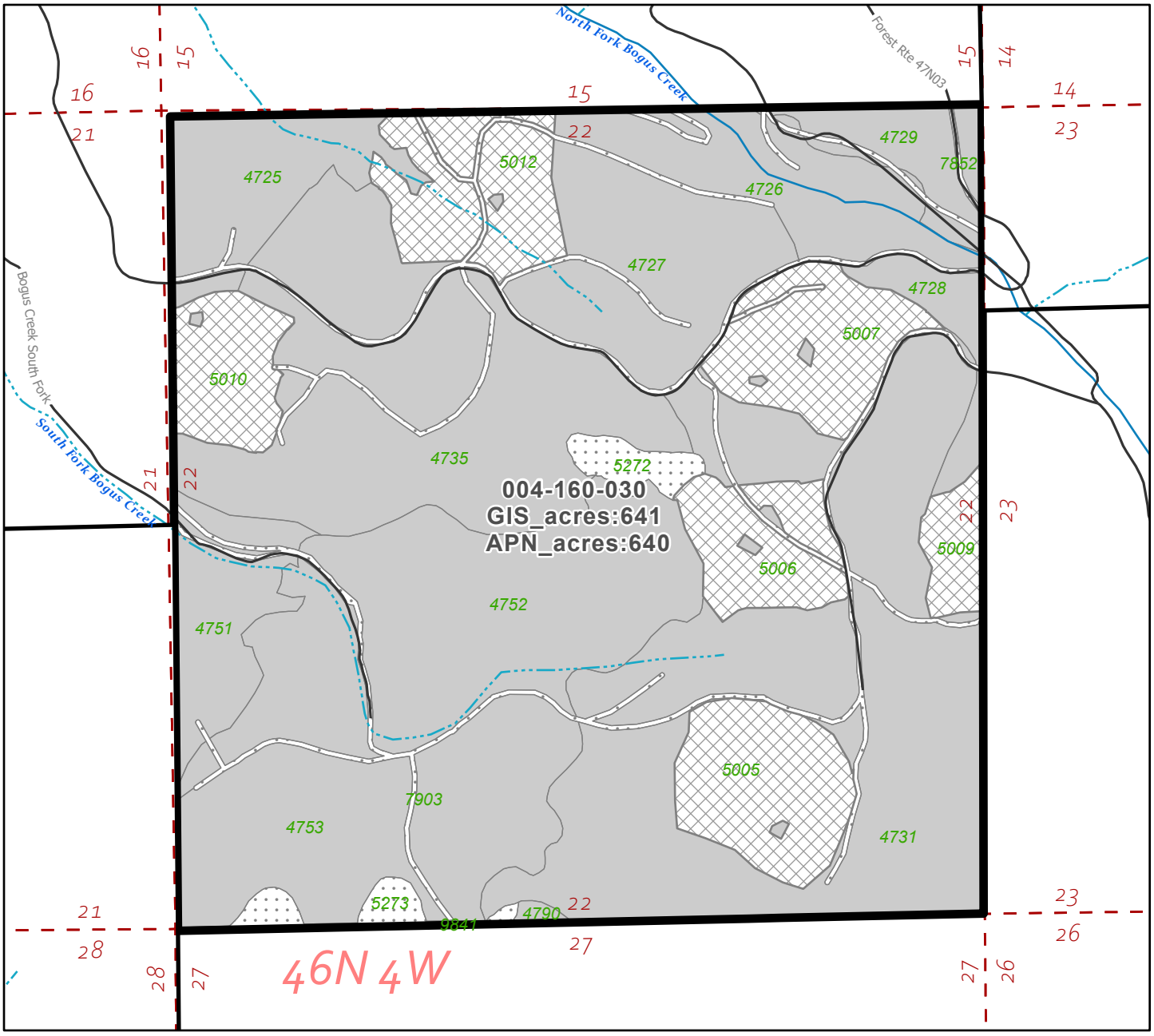
FWS Forestry

Prepared by: Ann Wagner, FWS Forestry

Exhibit C - Specific Forest Management Plan **030**

APN: 004-160-030

Map Date:11/11/2025



Stand	Management	Land Use	Stand Gross Acres	Stand Parcel Acres	Site Class	Age
AKF004725	Uneven	TMBR	131.2	25.3	V	Unknown
AKF004726	Uneven	TMBR	61.5	28.1	IV	Unknown
AKF004727	Uneven	TMBR	38	38	III	Unknown
AKF004728	Uneven	TMBR	89.4	8.8	V	Unknown
AKF004729	Uneven	TMBR	54.9	13.3	IV	Unknown
AKF004731	Uneven	TMBR	175.9	131.1	V	Unknown
AKF004735	Uneven	TMBR	94.4	91.8	V	Unknown
AKF004751	Uneven	TMBR	93.6	20.3	IV	Unknown
AKF004752	Uneven	TMBR	104.9	104.8	IV	Unknown
AKF004753	Uneven	TMBR	34.2	33.9	IV	Unknown
AKF004790	Uneven	TMBR	147.5	0.9	V	Unknown

Stand	Management	Land Use	Stand Gross Acres	Stand Parcel Acres	Site Class	Age
AKF005005	Even	TMBR	24.4	24.4	III	14
AKF005006	Even	TMBR	16.7	16.7	III	16
AKF005007	Even	TMBR	22.8	22.8	III	16
AKF005009	Even	TMBR	28.4	7.2	III	16
AKF005010	Even	TMBR	27.6	15	III	16
AKF005012	Even	TMBR	31.4	23.1	II	15
AKF005272	None	NONT	5.1	5.1		Unknown
AKF005273	None	NONT	105.4	5.5		Unknown
AKF007852	None	ROAD	1.6	0.5		Unknown
AKF007903	None	ROAD	55.3	24.9		Unknown
AKF009841	None	ROAD	0.4	0		Unknown

Local Roads

PLSS Township

PLSS FirstDivision

Application Parcel

Timber Stands

Low Volume Timber/ Plantation

Timbered

Non-Timbered

N

Scale: 1:12,000

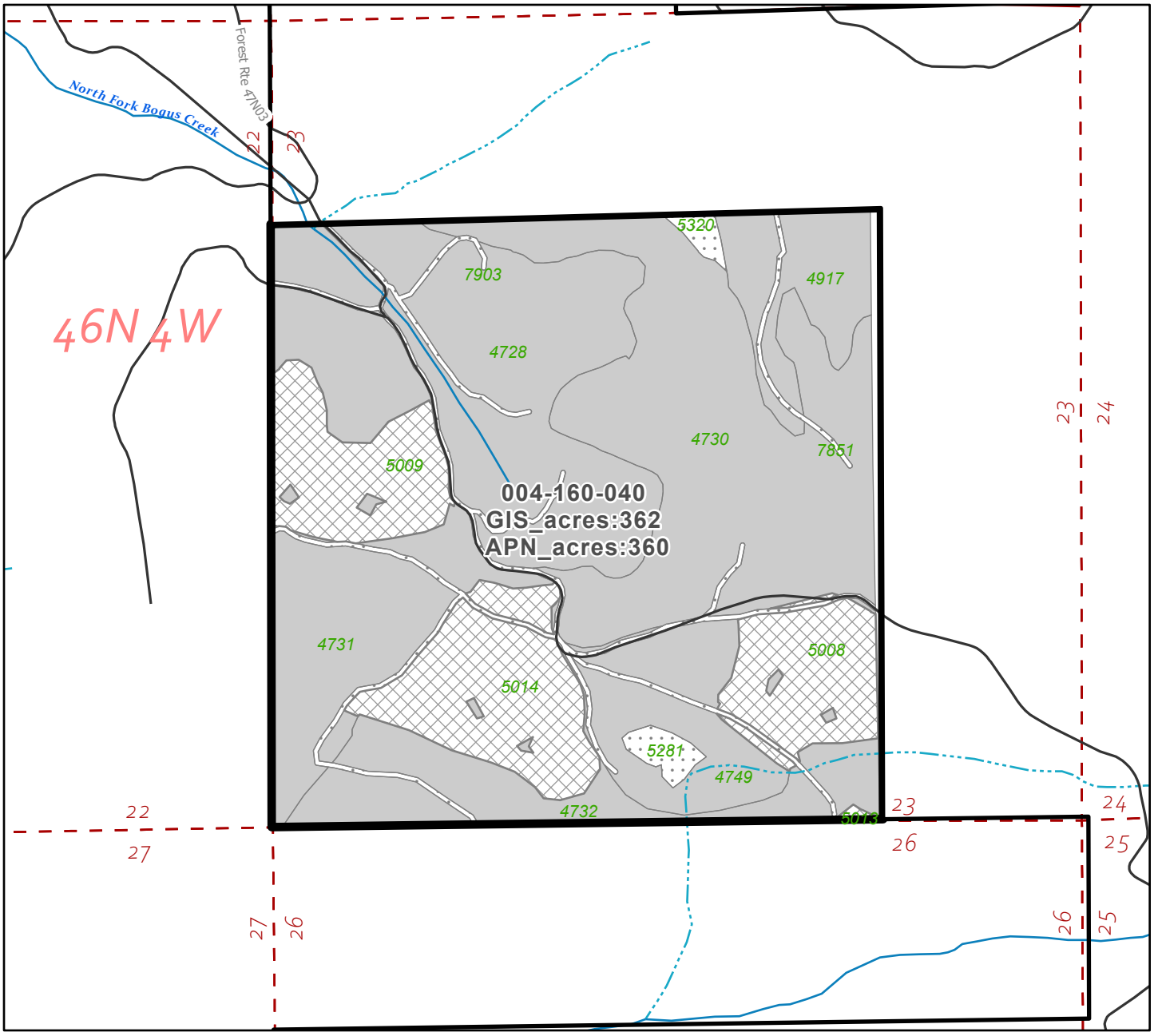
1 inch equals 0.19 miles

FWS Forestry

Prepared by: Ann Wagner, FWS Forestry

APN: 004-160-040

Map Date:11/11/2025



Stand	Management	Land Use	Stand Gross Acres	Stand Parcel Acres	Site Class	Age
AKF004728	Uneven	TMBR	89.4	80	V	Unknown
AKF004730	Uneven	TMBR	86.9	86.7	II	Unknown
AKF004731	Uneven	TMBR	175.9	34.2	V	Unknown
AKF004732	Uneven	TMBR	97.1	28.3	V	Unknown
AKF004749	Uneven	TMBR	22.9	22.9	V	Unknown
AKF004917	Uneven	TMBR	18.2	18.2	IV	Unknown
AKF005008	Even	TMBR	19.2	19.2	III	16
AKF005009	Even	TMBR	28.4	21.2	III	16
AKF005013	Even	TMBR	25.7	0.3	III	16
AKF005014	Even	TMBR	28.3	28.3	III	16
AKF005281	None	NONT	2.6	2.6		Unknown
AKF005320	None	NONT	17.6	1.5		Unknown
AKF007851	None	ROAD	1.3	1.3		Unknown
AKF007903	None	ROAD	55.3	12.2		Unknown

Local Roads

PLSS Township

PLSS FirstDivision

Application Parcel

Timber Stands

Low Volume Timber/ Plantation

Timbered

Non-Timbered

N

Scale: 1:12,000

1 inch equals 0.19 miles

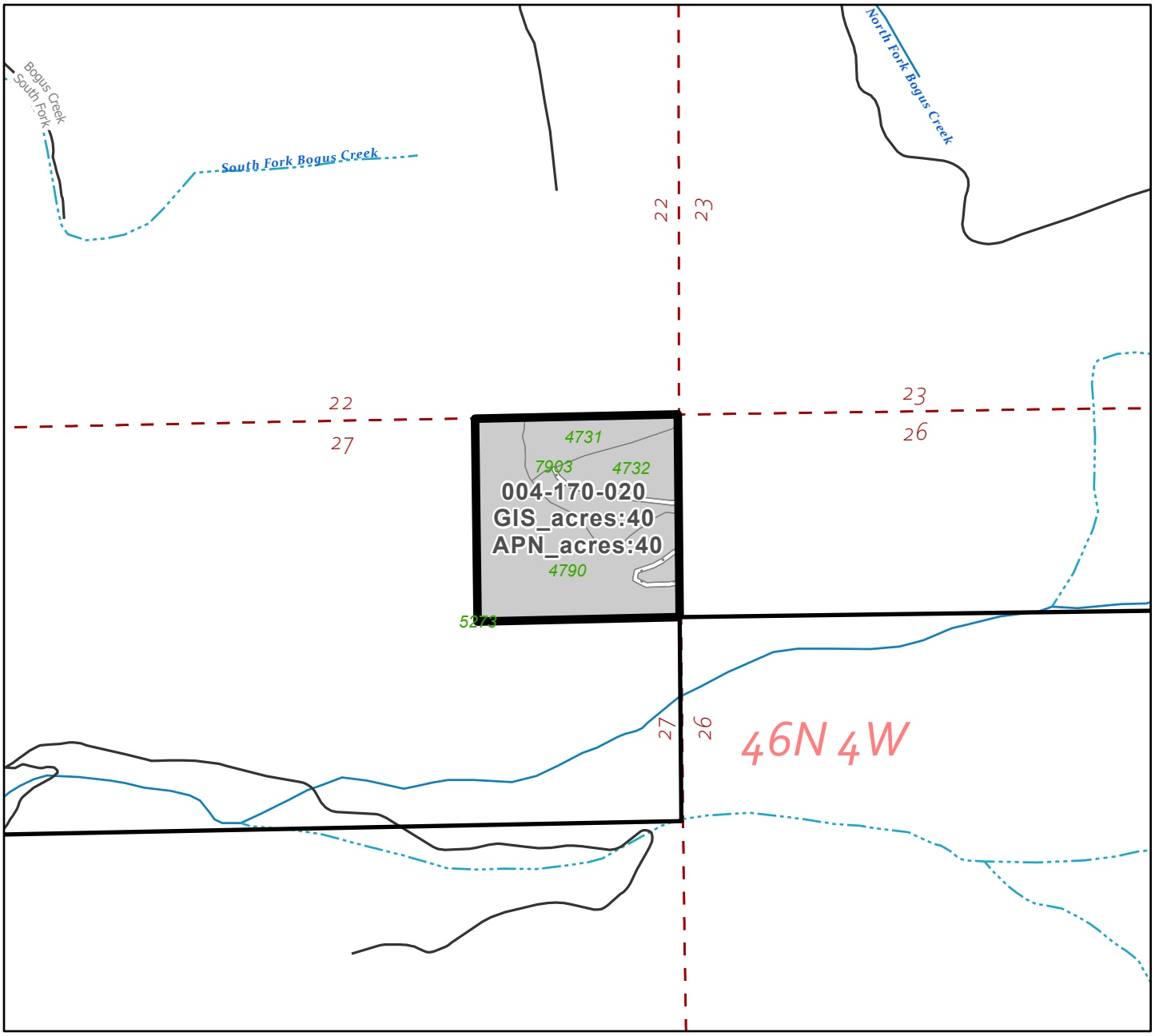
FWS Forestry

Prepared by: Ann Wagner, FWS Forestry

Exhibit C - Specific Forest Management Plan **032**

APN: 004-170-020

Map Date:11/11/2025



Stand	Management	Land Use	Stand Gross Acres	Stand Parcel Acres	Site Class	Age
AKF004731	Uneven	TMBR	175.9	5.4	V	Unknown
AKF004732	Uneven	TMBR	97.1	9.5	V	Unknown
AKF004790	Uneven	TMBR	147.5	24.1	V	Unknown
AKF005273	None	NONT	105.4	0		Unknown
AKF007903	None	ROAD	55.3	1.1		Unknown

Local Roads

PLSS Township

PLSS FirstDivision

Application Parcel

Timber Stands

Low Volume Timber/ Plantation

Timbered

Non-Timbered

N

Scale: 1:12,000

1 inch equals 0.19 miles

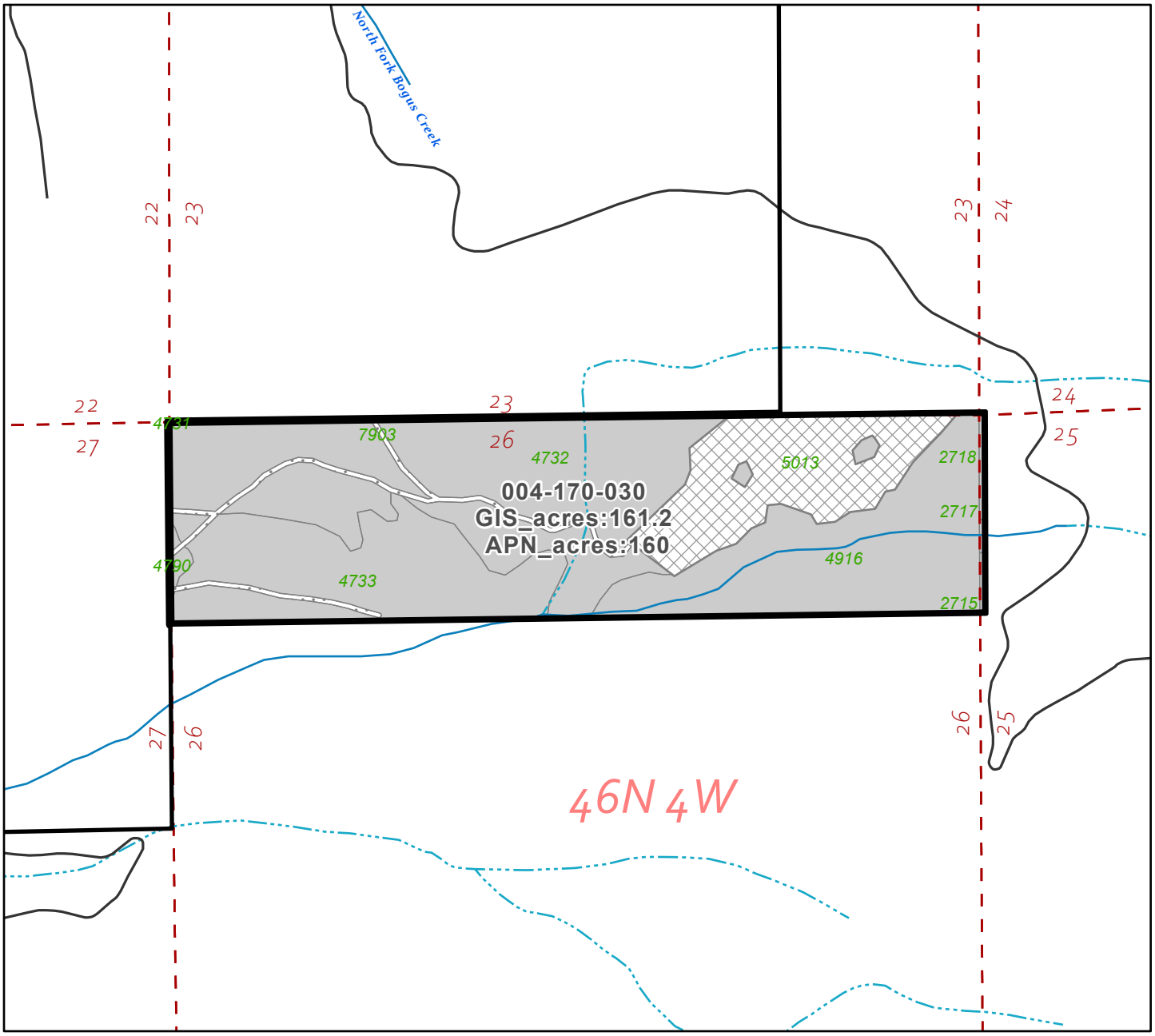
FWS Forestry

Prepared by: Ann Wagner, FWS Forestry

Exhibit C - Specific Forest Management Plan **033**

APN: 004-170-030

Map Date:11/11/2025



Stand	Management	Land Use	Stand Gross Acres	Stand Parcel Acres	Site Class	Age
AKF002715	Even	TMBR	21.2	0	IV	9
AKF002717	Uneven	RIPR	16.7	0.2	IV	90
AKF002718	Even	TMBR	37.1	1.1	IV	90
AKF004731	Uneven	TMBR	175.9	0	V	Unknown
AKF004732	Uneven	TMBR	97.1	59.4	V	Unknown
AKF004733	Uneven	TMBR	32.1	32.1	V	Unknown
AKF004790	Uneven	TMBR	147.5	0.8	V	Unknown
AKF004916	Uneven	TMBR	35.9	36	V	Unknown
AKF005013	Even	TMBR	25.7	25.4	III	16
AKF007903	None	ROAD	55.3	4		Unknown

Local Roads

PLSS Township

PLSS FirstDivision

Application Parcel

Timber Stands

Low Volume Timber/ Plantation

Timbered

Non-Timbered

N

Scale: 1:12,000

1 inch equals 0.19 miles

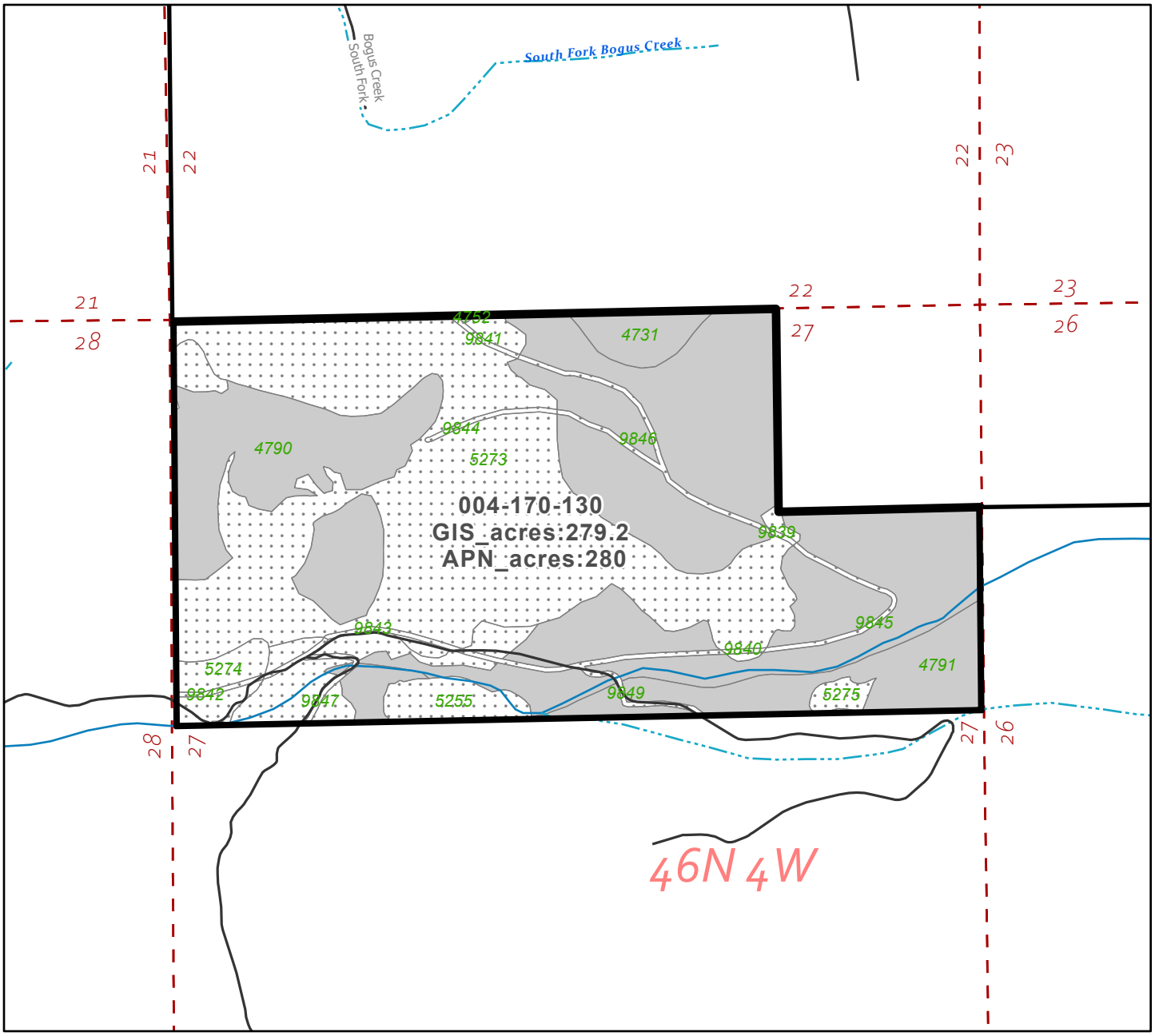
FWS Forestry

Prepared by: Ann Wagner, FWS Forestry

Exhibit C - Specific Forest Management Plan **034**

APN: 004-170-130

Map Date:11/11/2025



Stand	Management	Land Use	Stand Gross Acres	Stand Parcel Acres	Site Class	Age
AKF004731	Uneven	TMBR	175.9	5.3	V	Unknown
AKF004752	Uneven	TMBR	104.9	0.1	IV	Unknown
AKF004790	Uneven	TMBR	147.5	121.1	V	Unknown
AKF004791	Uneven	TMBR	103.6	20.8	IV	Unknown
AKF005255	None	UNPO	57.5	17.4	V	Unknown
AKF005273	None	NONT	105.4	99.8		Unknown
AKF005274	None	NONT	7.8	5.1		Unknown
AKF005275	None	NONT	1.6	1.6		Unknown
AKF009839	None	ROAD	0.1	0.1		Unknown

Stand	Management	Land Use	Stand Gross Acres	Stand Parcel Acres	Site Class	Age
AKF009840	None	ROAD	0.2	0.2		Unknown
AKF009841	None	ROAD	0.4	0.4		Unknown
AKF009842	None	ROAD	0.4	0.4		Unknown
AKF009843	None	ROAD	0.6	0.6		Unknown
AKF009844	None	ROAD	0.6	0.6		Unknown
AKF009845	None	ROAD	1.2	1.2		Unknown
AKF009846	None	ROAD	2	2		Unknown
AKF009847	None	ROAD	2.6	0.9		Unknown
AKF009849	None	ROAD	4.6	1.9		Unknown

Local Roads

PLSS Township

PLSS FirstDivision

Application Parcel

Timber Stands

Low Volume Timber/ Plantation

Timbered

Non-Timbered

N

Scale: 1:12,000

1 inch equals 0.19 miles

FWS Forestry

Prepared by: Ann Wagner, FWS Forestry

FOREST MANAGEMENT PLAN

Acer Klamath Forest

264,796 ACRES
1216 Fruit Growers Rd. Hilt CA 96044
Prepared by: F&W Forestry

July 1, 2022
Updated August 2, 2023

F&W Forestry's West Coast FSC Group
F&W Forestry's SFI Group

FWS Forestry Services, Inc.

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TABLE OF CONTENTS

SUMMARY INFORMATION

OWNERSHIP

In the summer of 2021, the Hilt-Siskiyou Forest was sold by the Fruit Growers Supply to the newly created Acer Klamath Forests LLC. (AKF). In June of 2022 AKF purchased the Michigan California Timber Companies California timberlands.

Acreage Summary- SFI

Productive Forestland	136,330
Non-Productive Forestland	15,555
Other Non-Forest	4,319
AKF-FG Total	169,589
AKF-MC Total	108,599.0
AKF Total	264,796 ACRES

Acreage Summary- FSC

FMU	156,029.6
FSC Exclusions	
Hilt - Town	118.9
Power Transmission	4.6
Grass Lake Rock Pit / Gravel Yard	18.7
Hunts THP Clearcut	25.0
AKF-FG Total 156,196.9	
AKF-MC Total (Certification 2023)	108,599.0
Total	264,796 ACRES

(See Spatial Data Housed in GIS, F&W FORESTRY GIS PROJECT, currently being uploaded to CENGEA.)

TIMBER AND INVENTORY SUMMARY

Merchantable Sawtimber by Species (12/1/2024).

Species	Species Mix	
Douglas-fir	39%	
White Fir, Red Fir	26%	
Pine	31%	
Incense Cedar	5%	
Total Softwood	**100%**	

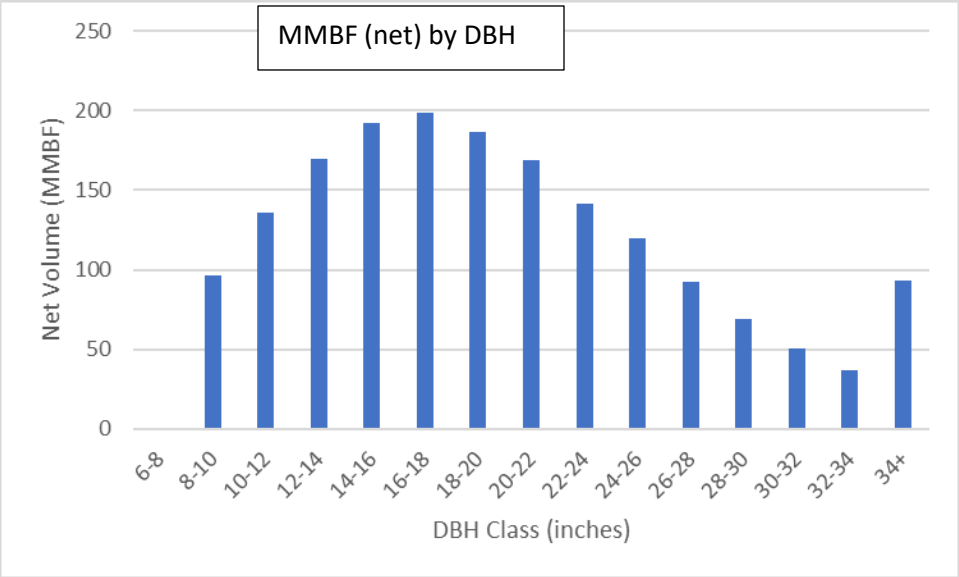
The forest inventory design includes stratification of forest vegetation into homogeneous stands and sampling of each forested stand to an allowable error of ten to fifteen percent of the merchantable basal

area per acre depending on current board foot volume. Timber types are classified by dominant species, size class, density, and understory for each physiographic inventory unit. Stands are delineated on aerial photography based on timber type, site, and operability and average twenty to one hundred acres in size.

Primary access to the inventory is at the stand level. The stratification process allows stands to not only be sampling units, but silvicultural units, wildlife habitat units, and units of similar growth conditions as well. A post-harvest update procedure identifies stands to be resampled so that the inventory is updated on an annual basis.

Inventory is managed both with ESRI ArcMap and ACCESS based FORSEE program. Updates are made to ACCESS stand, tree, and site tables annually with the addition cruise data. Inventory is grown with the CACTOS (Wensel, et al 1984) model annually. The most current inventory is 7/1/2022. GIS updates are made and reported bi-annually.

FOREST STRUCTURE



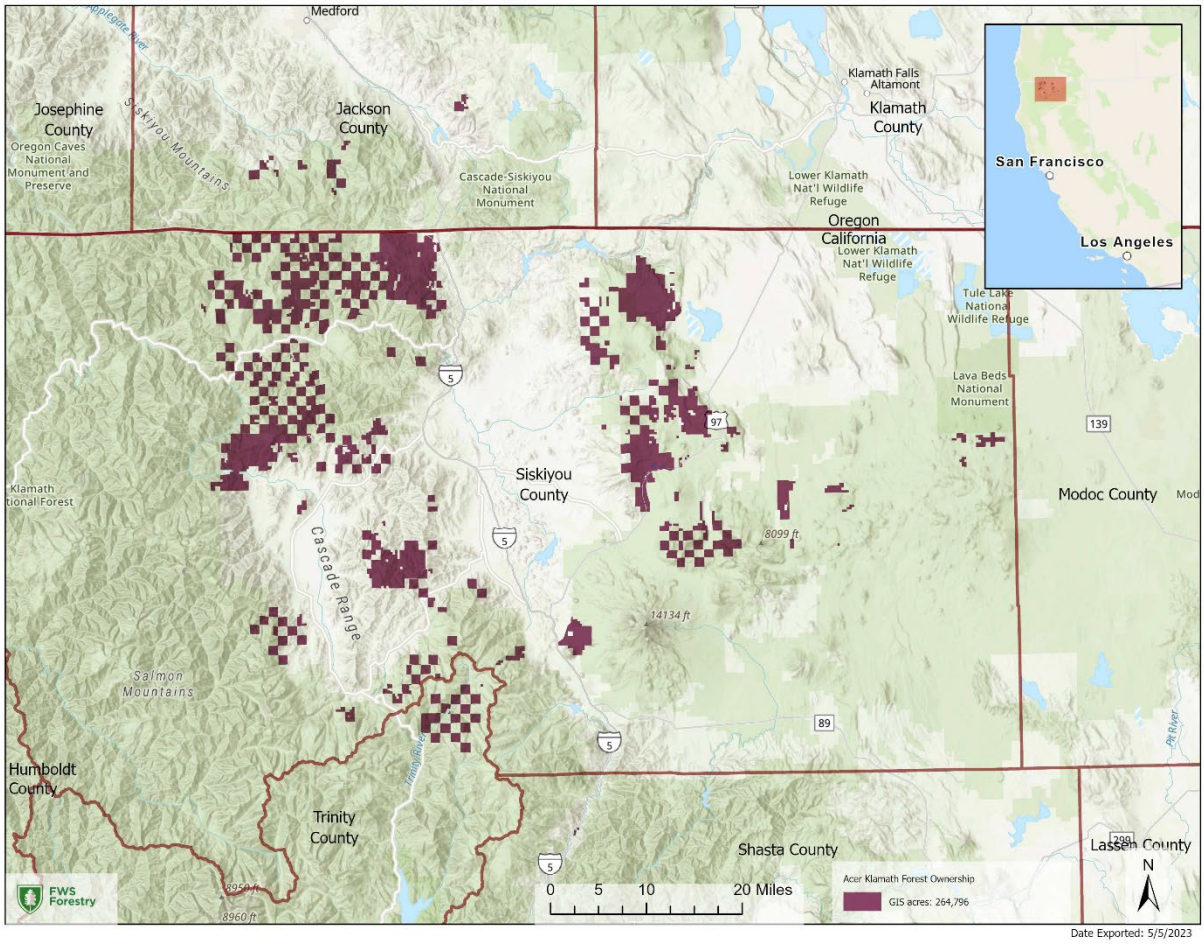
ACTIVITY SUMMARY

Year	Status	Project	Tract
2022	Active	Antelope Fire Salvage	AKF-FG
2022	In Review	Beartrap THP	AKF-MC
2022	Active	Bogey THP	AKF-MC
2022	Approved	Cold Creek Thinning	AKF-MC
2022	Approved	Cold Creek Salvage	AKF-MC
2022	Approved	Dairy Creek Salvage	AKF-FG
2022	In Process	Deadwood Emergency	AKF-MC
2022	Active	Dorris Salvage	AKF-MC
2022	Active	Flume Canyon THP	AKF-MC
2022	Active	Home Boy THP	AKF-FG

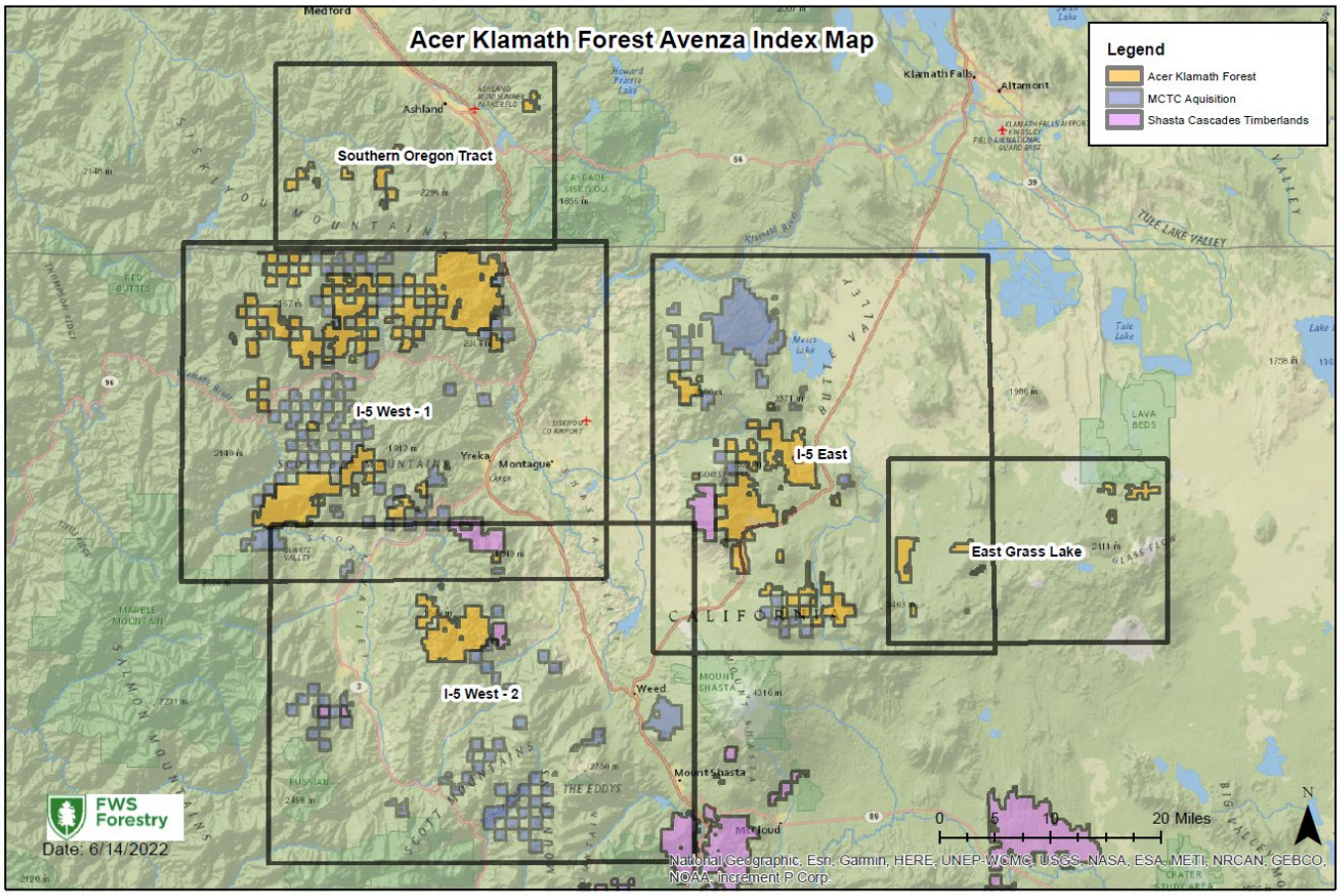
2022	Approved	Hunts THP	AKF-FG
2022	Active	Little Barkhouse THP	AKF-MC
2022	Approved	Moby Dick THP	AKF-MC
2022	Active	Panther THP	AKF-MC
2022	Active	Ruffey THP	AKF-MC
2022	Active	Shovler II THP	AKF-MC
2022	Active	Smith Lake	AKF-MC
2022	Approved	Spring Branch THP	AKF-FG
2022	Approved	Typhoon Ridge THP	AKF-MC
2022	Active	West Fork THP	AKF-MC
2023	In Review	Foghorn Cleghorn THP	AKF-FG
2023	In Review	Whipper Snapper THP	AKF-FG
2023	In Process	Tum Tum THP	AKF-FG
2023	Planned	Swayback THP	AKF-FG
2023	In Process	Short Creek THP	AKF-MC
2023	In Process	Soap Creek Ridge THP	AKF-MC
2023	Active	Isinglass THP	AKF-MC
2022	Approved	Kangaroo THP	AKF-MC
2023	Active	Picayune THP	AKF-MC
2023	Active	Snow Creek THP	AKF-MC
2023	Approved	Tyler THP	AKF-MC
2024	Planned	Studly Alex THP	AKF-FG
2024	In Process	Shingles	AKF-FG
2024	Planned	Coats Creek THP	AKF-MC
2024	In Process	Cottonswab	AKF-FG
2024	In Process	Indian Creek	AKF-FG
2025	Planned	Spaulding	AKF-FG
2025	Planned	Beaver Trap	AKF-FG
2025	Planned	High Grass	AKF-FG
2025	Planned	Bear Hound	AKF-FG
2025	Planned	Bear Pan	AKF-FG
2025	Planned	Dog Fork	AKF-FG

Note: THP name and harvest year are subject to change based on a variety of conditions including log market, wildfire salvage, and/or operational needs.

Acer Klamath Forest Location Map



Acer Klamath Forest Index Map



INTRODUCTION

The Forest Management Plan for the Acer Klamath Forest is composed of this central document and all other documents and resources which guide the management of the forest. These other documents may include growth and yield modeling, spatial data, reference documents describing standard operating practices for the forest types present on the forest, Policies and Procedures, and addenda prepared by the manager and covering diverse topics related to the forest.

The Management Plan is intended to guide the management of the forest in compliance with all applicable federal, state, and local forestry and related social and environmental laws and regulations, and with any adopted forest certification standards.

This Management Plan will be updated periodically to reflect new forest inventory, changes in growth and productivity, environmental factors including climate change, changes in forestland ownership and tenure, or forest health. Updates may occur in the form of partial or complete revisions or addenda and may happen at times appropriate to reflect changing conditions. The intended initial management period covered by this Forest Management Plan is from 2022 to 2032.

OWNERSHIP OBJECTIVES AND MANAGEMENT COMMITMENT

OWNERSHIP OBJECTIVES

The purpose of this document is to provide the rationale, procedures, and information necessary to demonstrate the balance of growth and harvest of timber products over time for the Acer Klamath Forest.

The goal of this analysis is to achieve maximum sustained production of high-quality timber products as specified by the landowner, considering biologic and economic factors, while accounting for limits on productivity due to constraints imposed from consideration of other forest values, including but not limited to, recreation, watershed, wildlife, range and forage, fisheries, regional economic vitality, employment, and aesthetic enjoyment.

Through strategic harvest scheduling, harvest yields, habitat and growing stock levels are optimized for the management unit. The process utilizes the existing forest inventory, identifies environmental and operational constraints and silvicultural opportunities, models growth and harvest scenarios within these constraints, and evaluates each scenario within economic and biologic goals.

Results indicate economically feasible harvest levels while building growing stock to a more regulated structure. By the eighth decade harvest levels will increase to the maximum long term sustainable yield level of this forest. Within each decade this plan will provide desirable habitat levels for a variety of wildlife, ensure adequate safeguards for fisheries, range, forage, and watershed, and promote regional economic vitality, employment, aesthetic enjoyment, and recreation.

The objective of forest management for timber production is to optimize periodic revenues through strategic harvest scheduling Alternative management scenarios are evaluated for various goals and constraints that balance timber production with conservation of other resources.

In addition to commercial forestry objectives, management goals include maintaining and improving overall forest health and sustainability, protecting cultural and community resources, and providing economic and recreational benefit to the local communities. Planning should consider the impacts of forest management on public resources such as air, water, and climate.

FSC MANAGER AND LANDOWNER COMMITMENT

F&W Forestry is a Forest Stewardship Council (FSC) Certified Resource Manager. The owners of the Acer Klamath Forest have made the commitment to be included in the group of certified properties covered by our certification. As such, we are committed to following the FSC's Principles and Criteria in the management of the Acer Klamath Forest. The MCTC addition to the Acer Klamath Forest will be included in the FSC Certificate at the next surveillance audit in Q2 of 2023.

Reference is also made to the F&W Forestry FSC and SFI Certification Policies and Procedures, which are integral to the management of all properties within the F&W Forestry group certification and is considered a component of this management plan.

GENERAL DESCRIPTION

LOCATION

The Acer Klamath Forest is situated primarily in Siskiyou County, California with small portions in Trinity and Shasta Counites, California and Jackson County, Oregon. The California portion of the forest drains primarily into the Klamath River while a small percentage drains into the Sacramento River. Soils are primarily of igneous and metasedimentary origins. The Oregon portion of the Acer Klamath Forest drains entirely into the Rogue River. The Southern Oregon portions of the ownership is in the Siskiyou mountains and soils are primarily metasedimentary origins. The nearest large towns located around the ownership are Yreka and Mount Shasta California and Ashland Oregon.

The Acer Klamath Forest is intermixed with and surrounded by USDA Forest Service and other private ownership. Each tract is characterized by a unique combination of climate, soil, elevation, precipitation and vegetation, these characteristics lend themselves to unique silvicultural opportunities and constraints.

HISTORY

Initial timber harvests began on the Acer Klamath Forest in the late 19th and early 20th century, most of these harvests were overstory removal - old-growth harvests. Railroad transportation and downhill yarding systems were the primary mode of moving logs. Post-World War II harvesting began on the steeper portions of the ownership such the Klamath River and Scott Valley with larger and more powerful cat skidders. After the closure of the Hilt mill in 1972 on the legacy Fruit Growers Supply Company property the management/harvest philosophy transitioned to light selection, and sanitation-salvage under a timber sales program until the purchase of the International Paper properties in 1983. After this purchase management practices were more intensive. Overstory removal and clearcutting were common forms of silviculture employed on this newly acquired ownership. Overstory removals and high grading selection cuts maintained the norm until the 1990's on the legacy Michigan-California timberlands

From 1990 to present, the timber management philosophy has changed to a more site specific - timber stand improvement style. Clearcutting is used in stands with poor health and/or stocking to improve long-term productivity. Most stands in good health are maintained through selective harvests, and commercial thinning. Since 2014 the Acer Klamath Forest has had five major forest fires which have switched most of the management to salvage harvesting and reforestation.

Intensive reforestation practices including tree planting and herbicide treatment of regenerated harvest units have increased over the past 8 years due to an increase in fire salvage. Mechanical site preparation will be reduced dramatically in the next decade when compared to past practices. This is primarily due to changes in logging practices. Mechanical logging has become the standard harvesting practice. Trees are skidded full length to landings reducing slash loadings in regeneration units. This reduces the level of mechanical site preparation necessary to restock the site. Pre-commercial thinning will increase significantly as many of the planted forests established in the mid 1980's and early 1990's become overcrowded, needing treatment. Road maintenance will remain relatively constant. Off-site special erosion control projects will remain constant as well.

LAND USES AND TRENDS IN THE LANDSCAPE

Much of the Acer Klamath Forest is within "checkerboard" ownership. Checkerboarding refers to a situation where land ownership is intermingled between two or more owners, resulting in a checkerboard pattern. Checkerboarding in the West occurred because of railroad land grants where railroads would be granted every other section along a rail corridor starting in the second half of the nineteenth century. The resulting ownership is a checkerboard of private and public lands.

Percent ownership by AKF within the 6th order watersheds:

- Acer Klamath Forest – 15 %
- Other – 41 %
- Federal USFS – 44%

OWNERSHIP HISTORY/TENURE/USE RIGHTS

The timberlands making up the Acer Klamath Forest ownership have been productive industrial forests for over a century. Southern Pacific Land Company (SPLC) was granted roughly 7 million of acres of land by the U.S government from the late 19th to early 20th centuries for constructing railroads on the west coast. In 1877 John Hilt started a mill near what is now the Hilt office. John Hilt sold the sawmill to the Hilt Sugar Pine Company in 1901 and the company established the town of Hilt. The Northern California Lumber Company purchased the mill and land in 1906. Fruit Growers Supply Company (FGS) acquired the mill and 24,000 acres timberland from the Northern California Lumber Company in 1910 to supply boxes for the Sunkist Growers of southern California. In the 1940's another 27,000 acres were purchased.

The land grant timberlands remained in SPLC ownership until the late 1980's where a portion in Siskiyou, Trinity, and Shasta Counties were sold to Sierra Pacific Industries (SPI). At the time of the land sale SPLC also severed the mineral rights from the timberlands. They are currently owned by Prize Energy and Newmont Mining.

In 1983 FGS bought another 102,000 acres was purchased from International Paper Company. The forest was named the Hilt-Siskiyou which covered approximately 250,000 acres. In 1994 SPI conducted a land trade with Michigan-California Lumber Company (MCLC). The owners of MCLC, the Pritzker family, merged the newly acquired timberlands with Timber Products which was owner by their business associates the Gonyea family.

In the 2000s FGS reduced their ownership nearly 100,000 acres. In 2011 the Gonyea Family bought out the Pritzker family and separated the timberlands from the Timber Products mill assets. The timberlands were renamed Michigan California Timber Company (MCTC).

In 2019 roughly 5000 acres on MCTC's ownership was granted as a conservation easement to Pacific Forest Trust. In summer of 2021, the Hilt-Siskiyou Forest was sold to the newly created Acer Klamath Forests (AKF). In June of 2022 AKF purchased MCTC.

INDIGENOUS RIGHTS

Acer Klamath Forest currently is committed to, and will continue to, recognize and respect Indigenous Peoples' rights and traditional knowledge. Protection of cultural heritage sites is an important part of the

California forest practice rules. Foresters are trained in recognizing and protecting archeological sites. Field observations are documented and reported to CAL FIRE. Acer Klamath Forest works with the Northeast Information Center (part of the California Historical Resources Information System) for recording archeological sites and has a forest-wide records search for locations of, and information on historical sites for the Acer Klamath Forest California ownership. The information is part of the GIS system and is protected on the ground.

Acer Klamath Forest is required to notify adjacent Indigenous Peoples of any planned timber harvest. This also includes consultation if there are any concerns. Our foresters are very receptive to inquiries and concerns and provide a prompt and respectful response.

ROADS AND INTERNAL ACCESS

Acer Klamath Forest has approximately 2,300 miles of roads and about 19% of these are public. Most private road systems are gated and closed to public vehicle use. The Acer Klamath Forest belongs to a cooperative agreement for public roads. All roads are maintained to best management practices.

BOUNDARIES

Acer Klamath Forest boundaries are blazed and are part of the USGS public land survey. Property lines are resurveyed if any problems with accuracy occur.

RECREATION

Dispersed recreation is the primary recreational use throughout the Acer Klamath Forest. Fishing and hunting occur seasonally. For fire protection and liability reasons camping by the public is permitted by camping permit only. Scattered undeveloped USFS campgrounds exist within close proximity to Acer Klamath Forest. Throughout most of the ownership no specific silvicultural allocations have been "hardlined" for recreation. As no significant change is expected in the types of recreational use that they receive, and as no significant change in road use policies are under consideration, no significant adverse impacts are expected.

AESTHETICS AND OTHER SOCIAL IMPACTS OF MANAGEMENT

Aesthetics are part of the timber harvesting process and considerations of this resource are included in the management decisions. Currently, at the landscape level, approximately 60% of the Acer Klamath Forest is a multi-sized, multi-aged forest under unevenaged management. The combination of evenaged, and unevenaged management produces a diverse mosaic of seral types with aesthetically positive results. Future management plans will promote a diverse range of forest types for continued quality aesthetics for the forest.

STAKEHOLDER CONSULTATION PROCESS

In advance of any timber harvest, if there are any adjacent landowners within 300’ of the harvest plan a notification including a project map will be posted at the nearest public road, or at the project boundary,

describing the planned activity. Key stakeholders will be notified by mail or email of the activity including a letter describing the activity and a map showing the planned site. Key stakeholders may include easement holders, active mineral or gas owners, regulatory agencies, and other relevant parties. Further, in the event that there are aesthetic, cultural, historical, wildlife, riparian, soil, or other resources of such unique nature that they are not adequately protected by current F&W Forestry policies, specific experts may be consulted in order to protect the unique resource.

CARBON STORAGE AND CLIMATE INDUCED ECOSYSTEM CHANGE

Acer Klamath Forest may consider a Carbon Credit Project through the California Climate Action Reserve and the California Air Resources Board. The role of forests in addressing climate change caused by increased levels of greenhouse gases in the atmosphere is well-established by science. Trees sequester carbon through the process of photosynthesis, and carbon can thus be stored for the duration of the resulting wood and other plant tissue. As climate change accelerates and as the average atmospheric and ocean temperatures increase, addressing climate change becomes an increasingly important issue for all.

Several aspects of a forest project can affect the storage of carbon. These include but are not limited to the inherent productivity of the site, the management practices applied, compliance with Best Management Practices, the lifespan of the wood products generated, and the success of regeneration.

Foresters and forest landowners should familiarize themselves with the influence of forest management on levels of carbon sequestration. When making management decisions, foresters and forest landowners should consider the impact of their decision on the capacity of the forests under their stewardship to sequester carbon.

FOREST INVENTORY

DESCRIPTION OF INVENTORY PROCEDURE

The Acer Klamath Forest has approximately 219,988 acres of productive forest land. Inventory is currently collected & maintained dependent upon the legacy of the previous inventory.

AKF-FG
Portions of the forest are sampled annually with a goal of covering above 10,000 acres per year. Post-harvest stocked stands (backlog) are the top priority for inventory sampling. The next priorities are stands that have not been sampled for over 10 to 13 years. Merchantable stands are typically sampled using the variable plot method (10 – 20 BAF) and immature stands with a fixed radius plot method. To facilitate check-cruising, all plots are monumented at plot center with a flag hung at eye level, and another on a stick stuck into the ground at plot center. The plot intensity is designed for 1 plot/5 acres. Stands that contain basal areas of 60 square feet per acre or more of merchantable size timber are sampled to estimate the total volume of the stand plus or minus ten percent at one standard deviation. Which equates that there is a 66% probability that the actual stand volume is equal to the estimated volume +/- 10%. Timber types that are less than 50% stocked in merchantable conifers are sampled at the timber type level with a confidence interval of plus or minus ten percent at two standard deviations (CI 95%) for the aggregated acreage of all stands within the type.

AKF-MC

A continuous inventory program has been utilized on this portion of the property since 2013 which involves conducting timber inventory work on approximately 10% of the ownership (excluding non-timber stands such as chaparral and hardwood-dominated stands) each year so that the entire timbered land base available for management is cycled through approximately every ten years. In 2021, inventory work was conducted on a total of 9,161 acres. Inventory design remains consistent with the approach started in the 2013 inventory work. A combination of "Count" and "Measure" plots were measured on the landscape, typically in a ratio of 1 count plot per measure plot (1:1 ratio). Ratios were adjusted for smaller stands so that at least 3 measure plots occurred in the stand. Information collected on Count plots was essentially limited to species and DBH while information on Measure plots also included total heights, live crown ratios, taper heights and defect. Information on snags and large woody debris was collected on every plot. Plots were laid out in a systematic grid of various spacings to ensure an adequate sample was achieved in each stand. All plots and their type (measure or count) were predetermined and mapped for the cruisers all of whom used GPS units to navigate to the plots. Plots within 33 feet of roads or timber type boundaries were offset 1 chain back into the stand at one of the eight directions (NN, NE, EE, SE, SS, SW, WW, NW) most perpendicular to the road or stand boundary. Roads were buffered a distance of 15 feet (total of 30-foot right-of-way) and the acreage in this right-of-way was subtracted from each stand to compute total volumes.

FPS version 7.3.2 was used to store, compile, and grow the inventory volumes. FPS can predict heights, live crown, etc. for the count plots using information in the measure plots. FPS also has the ability to expand inventory information from cruised to un-cruised stands with the same type call.

MOST RECENT INVENTORY SUMMARY

A summary of the most recent inventory of the Acer Klamath Forest included on page 4 of this document.

PHYSICAL FEATURES OF THE FOREST

GEOLOGY / SOILS

The Acer Klamath Forest geology and soil types can be divided into two distinct sections which are the Klamath Mountains and the Southern Cascade.

The Klamath Mountain section is between the Coastal and Cascade Mountains. The geomorphology consists of complex uplifting of metaphoric, sedimentary, and igneous rock. Lithology consists of Paleozoic sedimentary and volcanic rocks, and Mesozoic ultramafic, granitic, sedimentary, and volcanic rocks. The soil taxa consist of Alfisols, Entisols, Inceptisols, Mollisols, and Ultisols, in combination with mesic, frigid, or cryic and soil temperature regimes and xeric or aqua soil moisture regimes.

The Southern Cascades section is between the Klamath Mountains and the Modoc Plateau. It is the southernmost portion of the Cascade Range and ends near Mount Lassen. The geomorphology consists of various volcanic mountains eroded with no distinct range. Lithology is Cenozoic volcanic rocks. The soil taxa consist of Alfisols, Andisols, Entisols, Inceptisols, Mollisols, Ultisols, and Vertisols in combination with mesic, frigid, aridic, and cryic soil temperature regimes and xeric, aridic, and aquic soil moisture regimes

STREAMS, WATERSHEDS, AND MAJOR WATERBODIES

84% of the Acer Klamath Forest acres are within the Klamath River watershed, 4% is within the Rogue River watershed and 1% is within the Sacramento River watershed. 11% of the ownership drains into the Butte Valley and the Modoc Plateau which does drain into a larger water body. Many of the streams in the Klamath watershed are anadromous with a direct flow to the Pacific Ocean. These watersheds have anadromous salmonid protections (ASP) prescribed by the state. Approximately 90% of the Klamath River tributaries are within ASP watersheds. The Elliott Creek portion of the Klamath River tract and the eastern portion of the ownerships that fall in the southern Cascades and Modoc Basin are the only areas of the Acer Klamath Forest where the ASP rules do not apply.

In California, the Acer Klamath Forest has 1,110 miles of streams, with 129 miles of these being fish-bearing, and 420 miles supporting other aquatic life. In Oregon the Acer Klamath Forest has 67 miles of streams with 8 miles of these having fish presence.

Stream gradients on the Acer Klamath Forest range from low to steep.

Forest Management on the Acer Klamath Forest will have no negative effect on water quality within the forest or downstream. Forest management may cause risks to surface waters (most notably sediment and temperature) if precautions are not taken. Key point sources for sedimentation are stream crossings on skid trails, waterbars, ditches and stream crossings on the forest roads.

To address sedimentation at stream crossings, on skid trails, and on truck roads, Best Management Practices (BMP's), California Forest Practice Act and Rules, California Fish and Game Code sections, General Waste Discharge Requirements for Timber Operations on Non-Federal Lands in the North Coast Region of the State Water Quality Control Board, and F&W Forestry's Water Quality Policies will be followed in the construction and use of skid trails and truck roads on the forest. The risk of elevated temperatures in surface waters will be addressed by compliance with the above listed regulations, practices and policies as they relate to stream protection zones.
Additionally, the FSC stream buffers in the regional standards (Appendix E of the FSC standard) guide the buffer widths on this forest.

F&W Forestry Water Quality Policies are included in the APPENDIX.

CULTURAL FEATURES OF THE FOREST

ARCHEOLOGICAL/HISTORIC/PREHISTORIC SITES AND OTHER CULTURAL FEATURES

Cultural resources include the artifacts and evidence of human activity on the land. Significant cultural resources are often the remains of abandoned dwellings and former agricultural, mining or other land uses. Resources may also be evidence of early native American occupation of an area (i.e., house pits, stone artifacts, debris deposits, etc.)

Such features and sites should be mapped in F&W Forestry's GIS of the property. As per state and federal laws and regulations, significant cultural resources should be avoided and protected during forestry activities. In general, protection of these features and sites may involve the following:

- Avoiding or minimizing crossings of features and sites, or using crossings which have previously breached and degraded the sites;
- Avoiding disturbance of large stone piles;
- Delineating the immediate vicinity of sites and features as machine exclusion areas;
- Operating equipment in the vicinity of significant sites during periods of dry ground, frozen ground and/or deep snow cover.

SPECIAL SITES REQUIRING PROTECTION

F&W Forestry follows the state's forest practice rules which specifies protection of special sites. F&W Forestry does its due diligence with research and consulting with experts for specific special sites. F&W Forestry works with the Northeast Information Center of the California Historical Resources Information System for archeological site information and recording and has a forest-wide records search for location and information on historical and cultural sites for the Acer Klamath Forests California ownership. The information is part of F&W Forestry's GIS system and sites are protected on the ground as required.

F&W Forestry notes special sites in timber harvest plans, where allowed by law, and ensures protection of these sites in the field. A timber harvest plan's confidential archeological addendum is an example of identification of special sites.

There are numerous sites, both historic and prehistoric, across the ownership. Information about these sites is confidential and copies are housed in the Hilt offices.

BIOLOGICAL FEATURES OF THE FOREST

GENERAL DESCRIPTION OF THE FOREST

The Acer Klamath Forest is a diverse forest dominated by the following species: Douglas-fir (42% of volume), ponderosa pine (29%), white fir (18%), sugar pine (4%), incensed cedar and red fir at (3%). Over half of the forested land would be classified as mixed conifer (< 75% of one species) with mainly a mix of Douglas-fir, ponderosa pine, and white fir. Hardwoods are a minor component in the forest and consist of mainly black oak, white oak, Pacific madrone, big leaf maple, red alder, and black cottonwood.

84% of the Acer Klamath Forest is considered commercially forested and 16% is Non-Forest/Non-productive. 60% of the forested land is uneven-aged forest (12.3 mbf average per acre) and 40% is planted even-aged forest.

Acer Klamath Forest has been managed for forest production for over a century with a variety of silviculture prescriptions depending on the species and stand's growing potential.

WILDLIFE RESOURCES AND BIOLOGICAL DIVERSITY AT THE LANDSCAPE LEVEL

Approximately 20 reptiles, 13 amphibians, 83 mammals, 210 birds, and numerous fish, invertebrate, and plant species are known to exist or have the potential to be found within the Acer Klamath Forest.
Game and furbearer species include fisher, pine martin, blacktail deer, Roosevelt elk, coyote, bobcat, mountain lion, gray fox, ringtail cat, raccoon, striped skunk, black bear, black-tailed jackrabbit, and beaver.

Small mammals include the western gray squirrel, Douglas squirrel, northern flying squirrel, golden mantled ground squirrel and multiple chipmunk species, bushy-tailed woodrat, and several species of bats.
Wild turkey, Canada goose, mountain and California quail, sooty grouse, band-tailed pigeon, and several duck species are the main game birds. Common songbirds include many species of warblers, sparrows, and woodpeckers, Stellar's jay, dark-eyed junco, and spotted towhee. Common raptors include the red-tailed hawk, northern spotted owl, and great horned owl,

Common reptiles include several gartersnakes, northern pacific rattlesnake, California kingsnake, Pacific gophersnake, and the northwestern fence lizard. Common amphibians include the rough-skinned newt, American bullfrog and Sierran tree frog.

The State of California has laws and enforcement agencies necessary to control inappropriate hunting, fishing, trapping and collecting. On site visits, foresters purposefully look for trespass and inappropriate overuse, in addition to observing the general health and productivity of the forest. Combined with reports from other stakeholders about untoward activities, the forest is reasonably well protected from excessive hunting, fishing, trapping and collecting.

Diversity of Habitats As Reflected by Forest Types

The primary habitat types on the forest (as reflected by forest types) include:

Early Successional Habitat consisting of recently harvested stands, stands replanted after wildfire, and non-stocked forest lands (brush lands, oak woodlands, etc.) and supporting populations of deer, elk, squirrels, gophers, and numerous species of songbirds.

Deep Woods consisting of maturing and mature stands of mixed conifer and Douglas fir and supporting populations of northern spotted owl, fisher, Douglas squirrel, black bear, and numerous species of songbirds.

Wetlands consisting of seasonally wet meadows, alder, willow, and aspen and supporting populations of deer, elk, black bear and numerous species of songbirds.

Habitat for Species with Large Home Ranges or Affected by Fragmentation

The Acer Klamath Forest lies within the biologically diverse Klamath and southern Cascades physiographic provinces, which are characterized by steep, rugged forests and other habitats ranging in elevation from approximately 2,000 to over 7,000 feet above sea level. The area includes blocks of public and private ownerships and support populations that include northern spotted owl, great horned owl, northern goshawk, gray wolf, fisher, pine marten, and black bear.

Rare, Threatened or Endangered Species

According to the California Department of Fish & Wildlife's Natural Diversity Database (CNDDB), there are a number of rare, threatened, or endangered species or natural communities within the bounds of the Acer Klamath Forest. Most of these have location and occurrence information available within the CNDDB

and its geospatial data portal. If additional rare, threatened, or endangered species are located on the forest, they will be recorded using our internal T&E observations app or submitted on an incidental wildlife observations form to the company Wildlife Biologist and added to the internal wildlife database. Management strategies will be developed using sound science and professional advice to protect such species or natural communities. We will look to CDFW for guidance when such strategies are unclear.

Suitable habitat is present for a number of rare, threatened or endangered species, including northern spotted owl, great gray owl, greater sandhill crane, bald eagle, golden eagle, northern goshawk, Franklin's bumblebee, willow flycatcher, and Cascades frog, two endemic, State Threatened salamander species, Siskiyou Mountain salamander and Scott Barr salamander, have been detected several times on the western edge of the property. The Whaleback pack of gray wolves, one of three known packs in the state, frequents the Acer Klamath Forest and reportedly denned near the ownership in 2021.

Critical Habitats:

According to the California Department of Fish and Wildlife (CDFW) and the US Fish and Wildlife Service (FWS), there is critical habitat for the northern spotted owl located on Public land adjacent to the Acer Klamath Forest.

Forests with Exceptional Conservation Value and Old Growth Forests:

The Sustainable Forestry Initiative defines *Forests of Exceptional Conservation Value (FECV)* as "Critically imperiled (G1) and imperiled (G2) species and ecological communities." (Critically imperiled generally means five or fewer occurrences globally and imperiled generally means six to 20 occurrences globally).

A review of known rare species and communities on the forest (using data from CNDDB) indicate that there are no species or ecological communities which qualify as FECV.

The Sustainable Forestry Initiative defines Old Growth Forests as "A forested ecosystem distinguished by old trees and related structural attributes, such as tree size, down woody debris, canopy levels, and species composition. Program Participants should utilize a definition specific to their region and particular forest types."

Most definitions of old growth imply a late seral state, no clearly visible indications of human disturbance, undisturbed ecological processes, and trees at and/or past biological maturity. A review of the inventory data for this forest indicates that while there may be stands exhibiting some of the characteristics of a late-seral forest, no old growth forests are present on this forest.

Should FECV or Old Growth Forests be identified on the forest at a later date, they will be protected from human disturbance to protect their unique characteristics.

HIGH CONSERVATION VALUE FORESTS

FSC introduced the concept of High Conservation Value Forests (HCVFs) in 1999 to ensure identification and proper management of forest areas with exceptional conservation value. FSC defines High Conservation Value Forests as those that possess one or more of the following High Conservation Values (HCVs):

1. HCV forest areas containing globally, regionally or nationally significant concentrations of biodiversity values (e.g., endemism, endangered species, refugia);
2. HCV forest areas containing globally, regionally or nationally significant large landscape level forests, contained within, or containing the management unit, where viable populations of most if not all naturally occurring species exist in natural patterns of distribution and abundance;
3. HCV forest areas that are in or contain rare, threatened or endangered ecosystems;
4. HCV forest areas that provide basic services of nature in critical situations (e.g., watershed protection, erosion control);
5. HCV forest areas fundamental to meeting basic needs of local communities (e.g., subsistence, health); or,
6. HCV forest areas critical to local communities' traditional cultural identity (areas of cultural, ecological, economic or religious significance identified in cooperation with such local communities).

FSC certification prioritizes the protection of these valuable forest ecosystems.

HCVs are assessed for the Acer Klamath Forest in the HCVF Identification and Assessment document. This document also describes the process by which high conservation values are identified and assessed. The assessment and identification is conducted by F&W Forestry Services Inc. in consultation with stakeholders, experts and other qualified parties and resources.

REPRESENTATIVE SAMPLE AREAS

FSC Criterion 6.4 states that "Representative samples of existing ecosystems within the landscape shall be protected in their natural state and recorded on maps, appropriate to the scale and intensity of operations and the uniqueness of the affected resources."

FSC uses the concept of Representative Sample Areas (RSA's) to address this Criterion. RSAs are intended to:

1. Establish and/or maintain an ecological reference condition,
2. Create or maintain an under-represented ecological condition,
3. Serve as a set of protected areas or refugia for species, communities and community types not captured in other Criteria of this Standard.

To ensure that "representative samples of existing ecosystems" are protected, all forests under F&W FSC management shall establish Representative Sample Areas as required by the FSC Standard.

RSAs for the Acer Klamath Forest are identified in the RSA Identification document. RSA designations shall be reviewed, and updated, if necessary, at least at every management plan update, and at least at ten-year intervals.

INSECTS AND DISEASE

Forest insect pests, tree diseases, and other forest health issues are assessed and addressed at the time of management planning, operational planning, and in response to specific outbreaks. Currently the

following insect and disease risks are known on the forest: attack from several species of bark beetle (*dendroctonus* and *ips*), diseases such as black stain or annosus root disease, white pine blister rust, *elytroderma*, and various species of dwarf mistletoe.

INVASIVE SPECIES

Invasive plant species have the potential to invade the forest and alter its character and biodiversity. If left unchecked, invasive species can out-compete and crowd out native species through the formation of dense thickets, and they may interfere with future attempts to establish desirable regeneration.

Various control options are available and consist of manual, mechanical and chemical methods. It is recommended that invasive species control be conducted as soon as they are detected, and before any active forest management begins.

For the Acer Klamath Forest, the primary invasive species of concern include: Canada thistle, bull thistle, yellow starthistle, knapweeds, Dyer's woad, puncturevine, and Scotch broom.

F&W Forestry has recognized the threat posed by invasive species and has developed a policy to address the issue. That policy is included in the APPENDIX of this management plan.

DISTURBANCE REGIMES

Forests are naturally replaced when overstory trees die, providing growing space and sunlight to the forest floor which enables new trees to germinate and grow. Overstory trees die in many ways. Individual trees will ultimately die of old age in the absence of other factors.

Natural disturbances occur in events as small as the death of single trees, to as large as stand-replacing events. Fires, both from lightning and human sources, have had a major influence on the forest. Wind events, typically associated with thunderstorms can knock trees down or damage them enough to make them more susceptible to insects, disease and fire. Other weather events include damage from ice, snow and spring frost. In general, the larger, stand-replacing events happen at less frequent intervals.

Biotic disturbances can also be single-tree or stand-replacing events. Secondary insects can attack individual stems as they become stressed, damaged or otherwise weakened.

Significant disturbance factors on the Acer Klamath Forest include: catastrophic wildfires due to a variety of causes both natural and not.

Such disturbances may require an immediate management response and may result in revisions to the management anticipated in this plan.

GROWTH/YIELD

REGULATION, LONG TERM YIELD AND GROWTH

Regulation in forestry is control over the structure of the forest to meet the owner's objectives for yield. In this case, the yield objective is to release capital through the harvest of high quality, financially mature

sawlogs. Intermediate harvest activity (thinning) should be timed to keep stocking levels and growth at their optimum, so that the time to final harvest and financial maturity is reached as quickly as possible.

The distribution of age and size classes throughout the forest has a direct impact on the continuity of yields. If there is equal representation of the various age and size classes, yields will flow steadily as that portion of the forest reaching maturity stays constant through time. If the distribution of age and size classes within the forest is skewed, yields will vary through time accordingly. While the health and sustainability of the forest is not dependent upon the resulting pattern of yield, the diversity of the larger landscape is an important element in regional forest health and needs to be considered.

The regulatory goal is to minimize the time required to reach financial maturity while maintaining individual tree quality, and to encourage structural diversity within the larger landscape when possible.

MANAGEMENT

MONITORING

The management of the Acer Klamath Forest reflects a research-based management system, data collected on the forest representing current conditions and the results of ongoing monitoring.

Ongoing monitoring addresses the following factors:

- Yield of forest products harvested-
- Inventory is managed by the regional office. The inventory tracts the actual and projected harvests of timber and species, volumes, stocking, regeneration, stand and forest composition and structure, and timber quality. Inventory is adjusted for growth and actual harvest results.

- Growth rates, regeneration, and condition of the forest-
- This is monitored through cruising, tract inspections, and timber sale inspections. Forester's monitor: Seedling Delivery and Inspection, Preharvest, Harvest, BMP Compliance; Tract and Stand Conditions, and Roadwork. F&W Forestry provides mobile apps for each of these monitoring needs.

- Composition and observed changes in the flora and fauna-
- This is monitored through tract inspections, and timber sale inspections. Foresters enter this information into the following F&W Forestry Apps: T&E Observations, Preharvest Inspection, Harvest Inspection, BMP Audit, Tract and Stand Inspections.

- Environmental and social impacts of harvesting and other operations-
- Monitoring Impacts on Environmental Condition: This is monitored through cruising, tract inspections, timber sale inspections, pesticide application inspections, and review of the appropriate F&W Environmental and Social Risk Assessments for pesticides. Foresters enter much of this information into the following F&W Forestry Apps: Hazardous Spill Response, T&E Observations, Seedling Delivery

and Inspection, Preharvest Inspection, Harvest Inspection, BMP Audit, Tract and Stand Inspections, Roadwork Inspections, and Logging Contract Administration.

- High Conservation Value Areas-
- HCV areas are monitored annually to ensures the maintenance and/or enhancement of High Conservation Values.

- Monitoring Trends in Stand and Landscape Habitat Diversity-
- The diversity of F&W managed timberlands will be monitored by assessing both within-stand and stand-to-stand diversity. Monitoring includes:

    - Stand Habitat Diversity Monitoring—Currently, forest inventories collect data that can be used to characterize stand diversity. Data pertaining to tree size, tree species, tree height, canopy closure are currently being collected.

    - Landscape Habitat Diversity Monitoring—Landscape habitat diversity is monitored by inclusion of landscape scale data layers in planning (such as RTE species and wetlands). Landscape scale trends are assessed and reported at each management plan update (see the LAND USES AND TRENDS IN THE LANDSCAPE and DISTURBANCE REGIMES sections).

- Monitoring Impacts on Social Values-
- F&W monitors the impacts of operations on social values largely though engagement with stakeholders. This includes engagement with neighbors, lease holders, rights holders, and others. F&W Forestry identifies Native American groups and local communities that hold rights applicable to the Management Unit. If any such groups exist, F&W will engage with rights holders regarding management activities that affect their rights. In the event any special sites are located on the forest, they will be mapped using GPS and added to the forest GIS project and afforded appropriate protection and monitored during operations. F&W supports local economic and social development using local processing, local services, and local value-added manufacturing.

- Costs, productivity, and efficiency of forest management-
- This is monitored through the annual budget process and periodic reporting to Management and the Timberland Owners.

- Monitoring and Evaluation Systems-
- All aspects of the business are monitored on a continual but unscheduled basis. Managers are responsible for monitoring the work done by their staff and contractors. The most rigorous monitoring is conducted by operations inspection and forest inventory. Logging operations are monitored by frequent visits to the logging sites to check on safety, log quality, and adherence to the contract. Inventory projects serve to monitor the area inventoried.

F&W administers a quality control program that involves both internal operations audits and inventory audits. All three certification programs run by F&W include an internal monitoring component to ensure compliance with the relevant certification standards.

SILVICULTURE

The Acer Klamath Forest will be managed under a standard program of silviculture and supported by the F&W Forest Planning group, as described in the F&W Forestry documents: DESCRIPTION OF MAJOR FOREST TYPES AND MANAGEMENT OPTIONS TO MEET LANDOWNER OBJECTIVES.

Generally, management will follow standard management practices including unevenaged and evenaged silvicultural practices, as well as special prescriptions designed on a case-by-case basis to restore and enhance special habitats and sensitive areas.

The primary objective is to have a continuous production of high-quality timber products and a conservation of natural resources including but not limited to soils, water, air, and wildlife. With a staff of technically trained and professional foresters and wildlife biologists we intend to proactively manage our timberlands for maximum current and long-term production of various timber products as the market warrants and the law permits. Each of our management units will provide a mosaic of wildlife habitats with spatial and temporal diversity as a secondary goal. Except where environmental sensitivity or resource protection is an issue, our lands are open to public recreation.

Silviculture is applied on a site-specific need basis. Maximum stand health and vigor in terms of wood production is our primary goal. Stands that lend themselves are regularly thinned to promote board foot production and minimize risks posed by wildfire and pests. Target stocking levels range from SDI 100 to 200 based on species, site capacity and size of standing timber. Evenaged stands are regenerated when it becomes necessary due to maturity and/or disease, and is accomplished generally through planting of both appropriate seed zone seedlings and genetically superior stock of the species or species mix that naturally occurs on each site. Interplanting and vegetation management are applied until conifers are established and can successfully compete for site resources. Aggressive plantation management is utilized and is key to plantation success in terms of resource conservation and yield of timber products.

A portion of our stands have been silviculturally prepared for evenaged regeneration (Seed Tree and Shelterwood Seed step). The established regeneration in these stands is from ten to forty years of age while the shelterwood or seed trees can be from sixty to one hundred or more years of age. Each year a portion of our annual harvest will be from these seed tree and shelterwood units prioritized by condition, maturity and need for additional regeneration. This will promote balanced age class distribution on our forests while producing current harvests.

Uneven aged stands are regenerated as part of a regular thinning schedule. For many years our policy in these stands has been "Cut the slowers, leave the growers, and make some openings for natural regeneration." For the most part this policy has maintained the health of our forest both in terms of wood production and biodiversity, but has not in all cases maximized wood production. Stocking control in these stands has been governed by crown maintenance - that is regardless of stem size, if a tree has a healthy crown it is typically not harvested. This has led to an irregular structure in many of our all-aged stands. Maximizing the wood production of each tree does not necessarily maximize the wood production of a stand, much less a forest.

Our primary objectives in this model are to balance the age class distribution of our forests, put as many acres as feasible into full production as soon as possible, develop and maintain a full complement of wildlife habitats over our landbase, and, of course, maximize timber production for generations to come.

SUSTAINING FOREST HEALTH AND PRODUCTIVITY

As a company, F&W Forestry believes that it has a professional and ethical obligation to recommend and implement forest practices that assure that the long-term health and productivity of the forests it manages are sustained. Maintaining the integrity of forest ecosystems, promoting biodiversity and forest productivity, and protecting critical habitat are all aspects of forest management that must be considered to assure forest health is maintained over the long term. Forest practices must also consider the larger landscape in which the forest ownership is located and managed within the context of the regional ecosystem.

Although in most cases ownership investment objectives, timber production and protecting forest health are entirely compatible and often synonymous, situations may arise where they are not. In these situations, F&W Forestry has an obligation to advise owners against activities that are detrimental to forest health and to recommend alternatives. F&W also has an obligation to owners to advise on the financial impact to the investment of protecting forest health and sustainability.

To be sustainable, forest management must assure that future generations are not more limited in resource use options than present conditions allow. The following management principles are endorsed by F&W Forestry to assure this objective is met.

1. *Regeneration* - All harvest systems and final harvest cuts, except those where a change of land use is planned, are designed to provide for or accommodate acceptable regeneration of a healthy new stand. Specifically, forests certified under the SFI Standard are managed to comply with the following requirement: *Documented reforestation plans, including designation of all harvest areas for either natural, planted or direct seeded regeneration and prompt reforestation, unless delayed for site-specific environmental or forest health considerations or legal requirements, through planting within two years or two planting seasons, or by planned natural regeneration methods within five years.*

2. *Genetic Quality* - Tree quality and health are controlled not only by environmental factors but also genetic factors. Management decisions are therefore designed to favor vigorous, superior quality stems over lesser quality stems to assure that genetic quality is maintained. Cutting that removes only the highest quality stems for short term financial gain, leaving a residual stand with reduced long-term potential, is strongly discouraged.

3. *Biodiversity* - Many natural forests are naturally biodiverse, with a healthy mix of tree species, plants and habitat types occurring in fairly homogeneous stands. While management is generally designed to make specific stands more homogeneous in pursuit of productivity and quality, biodiversity may be maintained within the stand and, on a forest wide level, enhanced through regulation of the overall forest structure. Planted forests are non-diverse by definition. Biodiversity may be achieved by tract-level diversity of stands or age classes. Conversion of existing healthy natural stands to planted forests is discouraged. Where biologically and economically appropriate,

management may recommend maintaining ecological reserves where portions of the forest are allowed to reach biological maturity rather than financial maturity to further enhance biodiversity.

4. Wetland, Streams, and Soil Erosion - All logging and road construction activities are conducted to have no permanent adverse impact on water quality and wetlands. Most states have established "Best Management Practices" (BMPs) as guidelines or regulations for protecting streams and wetlands, and preventing soil erosion. Standards required by F&W Forestry routinely meet or exceed state BMPs. Documented post-harvest inspections note adherence to BMPs and the quality of protection of soil and water resources.

5. Wildlife - Planning of forest practices and timber harvesting will include consideration of impact on wildlife populations. Management objectives will be to protect and preserve any critical habitat areas, to encourage a diversity of habitat conditions that allow a diversity of wildlife species to thrive, and to control populations where appropriate to assure the carrying capacity of the forest is not exceeded and overall forest health is maintained.

6. Cultural Resources - Forest practices must be considered in the context of the local community and the social values the forest provides. Aesthetic impact on the surrounding community must be considered in planning forest practices. Historical public use and access to the forest, where not in conflict with management activities and landowner objectives, and when not creating undue liability exposure, should be allowed to continue. Historical sites, such as abandoned settlements, mill sites, graveyards and Native American sites should be identified and protected as appropriate. Local contractors, mills and other businesses should be employed where appropriate.

WATER QUALITY PROTECTION

Typically, if water quality degradation occurs on a harvesting operation, it is likely to occur as a result of sedimentation from roads, skid trails or landings. Another more minor, but still important, detriment to water quality is an increase in temperature.

F&W Forestry has a water quality protection policy and water quality protection guidelines that depend on the type of stream or water body. The State of California has rules and regulations that also guide and limit operations based on stream type, adjacent slopes and soil erosion factors to protect waters of the State. The overriding goal is to keep sediment out of the water and maintain water temperature.

HARVEST OPERATIONS

Logging is not unduly limited, although the terrain over portions of the forest can be demanding due to steep slopes, and some of the wetter soils will need to be operated under frozen conditions.

Harvesting will be accomplished either by a mechanized operation or hand crews. A typical mechanized operation currently utilizes a feller buncher and grapple skidders to extract the timber. The trees are usually processed on the landing with the aid of a loader/slasher. Hand crews typically fell the trees using a chain saw. The trees are removed from the woods using a cable or grapple skidder, or a cable yarder. Landing work is often similar to the mechanized operation but may include product separation with a person using a chain saw. Other harvesting techniques and equipment will be used as developed over time and as appropriate to the site.

By its nature, timber harvesting is a disruptive process. Silvicultural operations may be intended to mimic a natural disturbance such as windthrow or fire. Therefore, reduction of canopy density, overstory removal and ground scarification are intended to have significant environmental impacts. Harvest operations are designed to effectively create the desired conditions of density, species composition and ground disturbance, while minimizing detrimental environmental impacts, such as erosion and sedimentation. It is acknowledged that, while these detrimental impacts can be significantly reduced, they cannot be completely eliminated in all situations.

ROAD CONSTRUCTION AND MAINTENANCE

The Acer Klamath Forest is accessed by a network of public and private roads. The public roads are maintained by a Co-op, and the private roads are maintained by Acer Klamath Forest and, during timber operation, their Licensed Timber Operators.

BOUNDARY MAINTENANCE

The Acer Klamath Forest is bounded by permanent property boundaries that have been monumented in the Public Land Survey system by Certified Public Land Surveyor. This is recorded at the County Assessor's office.

CLIMATE RISKS, MITIGATION AND ADAPTATION

Introduction

Climate change resulting from the emission of excess carbon dioxide and other greenhouse gases into the atmosphere by human activity presents several substantial risks to the natural world and to human populations and cultures. These risks include but are not limited to:

- Increasing global temperatures
- Forest fire risk
- Increasing extreme weather
- Droughts and desertification
- Sea level rise and inundation of coastal areas
- Maladaptation to changes by native plants and animals
- Migration of non-native and invasive species
- Plant diseases and pest insects

Forest management has a unique position in the various responses to climate change. Forest management can be adapted to respond to and mitigate these risks (such as through enhancing resilience in systems), but it can also be adapted as a strategy to address the foundational cause of climate change: the level of atmospheric carbon dioxide.

Forest landowners and forest managers are therefore key players in the response to climate change, and can influence both the climate risk to their forests and the effect of their forest management on the climate broadly, through their actions.

Climate Risks

The following table demonstrates an assessment of climate change related risks for the Acer Klamath Forest.

Ranking	Climate Change Risk	Rating (Severity / Likelihood)
1	Increased wildfires	High (Severe / Very Likely)
2	Extreme Weather	High (Severe / Very Likely)
3	Drought / Mortality	High (Major / Very Likely)
4	Heavy Rainfall	Med High (Major / Likely)
5	Increased Invasives, Pests and Pathogens	Med High (Major / Likely)
6	Changes in Forest Habitat and Composition	Med (Moderate / Likely)
7	Warming temperatures	Med Low (Minor / Likely)

Opportunities to enhance ecosystem resilience in the face of Climate Change

Forest management can be adapted to enhance the resiliency of natural ecosystems.

Resiliency can be understood as broad forest health, adaptability to changing conditions, and sufficient systems to avoid the risk of catastrophic losses from stresses and damaging elements (fire, insects, disease, drought, etc.). Forest management can enhance resiliency in many ways and there are opportunities for action at several points within forest management systems.

1. Maintain and enhance diversity, diverse forests and diverse landscapes are generally more resilient than homogenous ones. Diversity can be enhanced by:
    a. Planning for a diversity of age classes and forest types in the planning process.
    b. Maintaining multiple species within stands and forests
    c. Protecting and encouraging habitat features such as snags and cavity trees, CWD, and structural diversity
    d. Protecting RTE species and habitats
    e. Protecting special sites and old forests
2. Prompt Successful Reforestation: Well-stocked healthy forests are generally more resilient and provide more benefits than understocked or unsuccessfully regenerated forests. Successful regeneration can be achieved through such practices as:
    a. Prompt reforestation or planned natural reforestation as per SFI Indicator 2.1.1;
    b. Adequate regeneration and appropriate actions to correct understocked areas;
    c. Evaluation for afforestation of areas that are not ecologically important;
    d. Protection of desirable or planned advanced regeneration during harvest and the retention of vigorous trees during partial harvest;
    e. Participate in seedling coops and research into improved varieties of planting stock.
3. Maintenance of Forest Health:
    a. Address any identified forest health issues in a timely manner
    b. Maintain a robust monitoring program.
4. Participation in Forest Protection Programs
    a. Participation in forest protection research programs,

b. Cooperation with local, regional, State and Federal Forest protection agencies and programs (such as USDA APHIS and State fire agencies).

Adaptation Plan to Address Climate Change for the Acer Klamath Forest:

The following mitigations and adaptations address both the climate risk to this forest and the effect of forest management on the climate broadly.

- **Periodic inventory and analysis of inventory to assess effects of current management and impacts of climate change influences.**
- **Analysis of growth and yield modeling to assess effects of current management and impacts of climate change influences.**
- **Document harvest trends per management plan.**
- **Incorporate the results of research into management.**
- Work with state or federal governmental agencies or adjacent timberland owners to collaborate on fire suppression.
- Ensure prompt salvage and regeneration after events.
- Promote healthy stands: Manage to desired trees per acre, increase thinning, select proper species for the site, support improved tree genetics, and increase control of competition to reduce the effects of drought.
- Monitor road conditions.
- Use BMPs.
- Design and maintain infrastructure, including roads, buildings, and stream crossings, to accommodate increases in flooding and geologic hazards such as landslides.
- Support invasive eradication plans and treat seedlings against pests and pathogens.
- Support improved tree genetics, consider using a diversity of tree sizes, species, and ages in stands at a landscape level of planning where appropriate for management objectives to increase forest resiliency.
- Consider adaptive silviculture planning and operations, adjust mgmt. activities to accommodate precipitation variability, encourage stand species and age diversity, and increase use of soil stabilization techniques.
- Consider identifying and protecting ecologically significant areas such as spawning grounds, and areas of high species diversity and critical habitats as the locations of these areas change with climate and connect landscapes with corridors to enable migrations.
- Consider adjusting equipment mix to better handle less frozen ground conditions, upgrade road infrastructure to support wider seasonality, implement BMPs during harvest activities instead of waiting until the end.
- Consider identifying and protecting and restoring the structural complexity and biodiversity.
- Maintain onsite tools and protocols to fight wildfire.
- Consider increased thinning's to reduce density of stands.
- Consider planting fire-adapted species and species native to lower elevations, drier, and/or warmer areas nearby, or areas with more frequent fire.
- Support outlets for salvaging timber.

- Manage harvest permits, (where applicable) for flexibility in timing and intensity to allow for agile responses to drought.
- Consider monitoring, and long-term research at experimental forests to evaluate the effectiveness of management actions to help ecosystems adapt to the effects of climate-driven disturbances.
- Increase forester training for early detection monitoring.
- Consider expanding the planning horizons of land use planning to incorporate longer climate predictions.

Regional Risks, Fire Resiliency Mitigations and Adaptations

Introduction

The risk of undesirable impacts of wildfire varies based on climate and forest conditions, forest management practices, regional and public infrastructure related to fire management, and the surrounding landscape. Wildfire poses a risk to human health and safety, forest assets, and property.

Mitigations and Adaptations to Promote Resiliency

The following stand and landscape level management techniques, actions and policies may be used to promote forest health and resilience, and to mitigate the risk of undesirable impacts of wildfire. Risk is assessed based on specific circumstances, and some, none, or all of these actions may be appropriate in a given situation of risk.

- Prescribed fire
- Cultural burning
- Thinning
- Mastication or hazardous fuel reduction
- Pile burning
- Targeted herbicide use when burning isn't feasible based on risk
- Maintaining and brushing roads for fire control lines
- Creating and maintaining firebreaks and shaded fuelbreaks on the forest and in collaboration with adjacent landowners
- Maintaining updated locations of water sources, gates and codes, and property boundaries to share with local fire suppression agencies and personnel.

Regional Risks, Fire Resiliency Mitigations and Adaptations:

Pacific Northwest (Northern California and Southern Oregon)

Due to historic drought conditions and a history of fire suppression, the wildfire risk in the Pacific Northwest region is high. All risks are at a high level, including human health and safety, forest assets, and property. Fire awareness is also high and a culture of fire response and adaptation exists in this region. Fire response is directed by well-established State (CalFire) and Federal (USFS) programs. F&W Forestry collaborates with and participates in programs and fire suppression efforts with these programs. In addition, extensive fire mitigation practices are put in place on F&W Forestry managed lands, including

brush control, woody debris control, thinning, operational restrictions during hot and dry times of the year, establishment of water drafting sites, etc.

In some situations, typical practices include the retention of stand features which would have typically been left following historic wildfires (e.g., snags for cavity-nesting birds, large woody debris, etc.) and regeneration that allows for early seral species to recolonize promptly.

Forest health is also addressed through tree density control with evenaged management and intermediate treatments that protect residual trees to reduce injury vectors for insect and disease.

Habitat elements associated with mature forest may be retained, and silvicultural techniques that mimic natural disturbance processes may be used to create a mosaic of forest conditions similar to what would exist under a natural disturbance regime.

F&W Forestry's program to assess the risk of undesirable impacts of wildfire in this region is structured by the landowners internal programs. F&W Forestry prepares a risk assessment for the forest annually and this assessment serves the SFI requirement for a program to assess the risk of undesirable impacts of wildfire.

Fire plays an important role in the natural ecology of the region. Historically, this area has supported a seasonally arid ecosystem which is prone to lightning-caused wildfire, generally in the summer and fall. Martin, Robinson and Schaeffer (1974) provided the following review of historical fire intervals in this region:

> Weaver (1959) reported fire intervals between 11 and 47 years on ponderosa pine stumps in the Warm Springs Indian Reservation in north central Oregon. Soeriaatmadja (1966) examined over 300 stump sections on the same reservation and arrived at fire intervals which were directly correlated with elevation and ranged from 6 to 36 years. His observation seems quite logical with the increased precipitation and fewer days of very low relative humidity at higher elevations. On the Klamath Indian Reservation, Weaver (1961) recorded a fire interval of just over 10 years on ponderosa pine.

Generally, these fires are thought to have played a role in forest regeneration and stand structure.

The current historically significant drought conditions have changed the role of fire in the region from one of relatively frequent and less damaging fires to potentially catastrophic fires threatening forest assets, and human lives and property in the "wildland/urban interface". As such, fire management must now include extensive mitigations and control measures, in which F&W Forestry participates.

DESCRIPTION OF LAND CLASSIFICATION SYSTEM

The following land classification system is used to organize data for the Acer Klamath Forest.

INTRODUCTION

A comprehensive forest information system includes inventories of all resources, natural and manmade, found in the forest (e.g., timber, landbase, wildlife, habitat, roads, minerals, etc.). The scope of this inventory includes those resources related to timber production and wildlife habitat management. Other resources are inventoried through geographic information systems maintained in-house.

The purpose of the system is to provide forestry staff and managers with the information required for planning purposes: current standing inventory; annual volume increment; and landbase classification. The system incorporates forest stratification based on cover type with a sampling design and statistical analysis to provide information at many levels of resolution.

This document's objective is to establish and maintain an efficient, unbiased data and map base from which a variety of useful reports can be generated, and analyses completed.

SYSTEM DESIGN

Current timber inventories are primarily governed by the species mix, and the size and density of standing trees. In addition to these factors, future inventories are also influenced by site potential, condition of growing stock, and management practices.

The landbase is first divided into Inventory Units (*IU*) unique in physiological growing conditions, such as climate, elevation, soils, average site potential, and past management practices. Each *IU* is then stratified into timber types; a process which subdivides the landbase on the basis of vegetative cover, which in turn defines management opportunities. The attributes of primary concern are those which are known to be correlated to timber volumes (e.g., tree species, size, & density). Site potential and operability are also key factors for management. In many cases one or more of these factors are compromised to obtain a mappable polygon (*Stand)*. In general, vegetative cover is averaged to produce manageable stands of twenty acres and larger. The objective here is to reduce the variability for sampling purposes as each timber type or stand is more homogeneous than the aggregated forest area.

There are two main components of this system: the geographic information system (*GIS*), which contains stand location data; and the forest information system, which contains stand and tree attribute data. Stands (individual polygons) within a type can differ in understory, site potential, and/or operability, but are similar in the merchantable component. Data is collected for each stand and accumulated by type. This allows the timber base to be represented from broad type summaries to individual stand conditions. In instances of stands too small or remote to efficiently sample, data from similar stands is applied.

TIMBER TYPES

A) Introduction - Timber typing involves subdividing the forest area into strata or types, each of which is more homogeneous than the aggregated forest area. Types are delineated based on attributes observable on aerial photos or digital imagery which are known to be correlated with timber volumes (e.g., tree size and density).

B) Minimum Acreage - For purposes of this inventory, 20 acres is the minimum size timber type that will be delineated. Exceptions to this minimum occur when a significant type change, such as a lake or planted forest, occurs within a timber stand. In these "sharp contrast" cases a 5 acre minimum will be used. Upon completion, visual differences between strata should be discernible to the naked eye.

C) Symbols - Timber type symbols are broken into 3 groups: Non-forest types; Forest types; and Understory types.

Non-forest - Polygons that have less than ten percent (10%) of their area covered in conifer crowns are typed as non-forested and are labeled with one of the following symbols:

NCFL - Non-commercial forest land = land incapable of supporting a stand of commercial conifers - e.g., rock.
NSFL - Non-stocked forest land = land presently non-stocked, but capable of supporting a stand of commercial conifers.

Forest-types - Polygons that have more than ten percent (10%) of their area covered in conifer crowns are typed as forest types and labeled using a three part labeling system which includes species, size and density (e.g. PP4M). Definitions and symbols for each follow:

a) Species - A forested polygon is labeled with its appropriate conifer species symbol when more than 70% of the board-foot volume in the stand can be described by the symbol. If no one species represents more than 70% of the volume, a mixed species designation is used.

Conifer Species Symbols

PP - Ponderosa pine
DF - Douglas-fir
WF - White fir
RF - Red fir
LP - Lodgepole pine
MC - Mixed conifer
IC - Incense cedar

TIMBER TYPES - Symbols continued

b) Size Classes - A forested polygon is labeled with the size class symbol of the largest size class present which contributes significantly to the volume of the stand. Size is defined in terms of diameter in inches at breast height (DBH) and is broken into four management categories - Reprod., Poles, Small Merch., and Large Merch.

Symbol	DBH	Comments (photo appearance)
1	2-5”	Crowns 5' diameter – appearance similar to brush, but more textured
2	5-12”	Crowns 6-12'diameter - very pointed in appearance
3	12-24”	Crowns 13-25' diameter
4	24”+	Crowns over 25' diameter - tend to have rounded appearance

c) Density classes - A forested polygon is labeled with the density class symbol of the main volume contributing component. Crown closure is defined as the percentage of forest area occupied by the vertical projection of tree crowns for the represented size class only.

Symbol	*TPA*	*Merch BA/A*	*Crown Closure*	*Spacing*
Size Cls 1 & 2				
Open	*50*		*10 - 20*	*40'*
Light	*51 - 100*		*21 - 40*	*24'*
Medium	*101 - 200*		*41 - 70*	*17'*
Dense	*201 +*		*71 +*	*Closer*
Size Cls 3				
Open	*6 - 17*	*10 - 30*	*10 - 20*	*51'*
Light	*18 - 34*	*31 - 60*	*21 - 40*	*36'*
Medium	*35 - 68*	*61 - 120*	*41 - 70*	*26'*
Dense	*69 +*	*121 +*	*71 +*	*Closer*
Size Cls 4				
Open	*3 - 12*	*10 - 50*	*10 - 20*	*60'*
Light	*13 - 25*	*51 - 100*	*21 - 40*	*42'*
Medium	*26 - 43*	*101 - 200*	*41 - 70*	*32'*
Dense	*44 +*	*201 +*	*71 +*	*Closer*

Figure B - 1 *Timber Type Classification System*

TIMBER TYPES - Symbols continued

d) Understory types - Understories of timbered polygons that have Open or Light crown closures are labeled with a symbol that describes the predominant understory (e.g., PP3O/RP). Understory classifications in Non-timbered polygons refer to management category and/or best use.

AG - Agricultural land (Fenced or irrigated)
BG - Bare ground
BR - Brush
GR - Grass
HW – Hardwoods (Also noted as **WO**)
PT – Planted forest (see G Planted Forest Type Coding)
RP - Reproduction (natural) < 5" DBH
PL - Poles 5" - 12" DBH
SS - Small saw timber 12" - 24" DBH
RG - Range or Meadow
RK - Rock Outcrops or Shallow soils
SV - Specified Value (Residential, Borrow Pits, etc., also noted as **BP**, **HY** highway, **IN** industrial, **FB** fire break)
PW - Powerlines or Pipelines
JN – Juniper
MW – Meadow (also noted as **MD**, **RG**)
RD – Road

RH - Rehab
RZ – Riparian Zone (also noted as **RN**, **CR, WA**)
2O, 2L, 2M, 2D - Pole understories noted as Szc & Den as determined in FORSEE
3O, 3L, 3M, 3D - SS understories noted as Szc & Den as determined in FORSEE

D) Site - Site trees are selected as average dominant or co-dominant conifers across the range of sites for each IU. Breast height age and total height are compared to Biging site curves to quantify site for timbered stands. Site is estimated for each stand relative to the range of sites for each IU. As of 2009, site trees are measured for each conifer species for each stand. Non-timbered stands are classified by dominant brush species, soils, slope, aspect and elevation.

E) Stand Numbering - Stands are uniquely numbered per IU, multiple polygons can have the same stand number if they are associated by cruise data and/or vicinity for non-cruised stands. Numbers will not be reused as stands are altered over time.

F) Acreage Measurement - As of 2007, stand mapping is transferred directly from field maps/photos to the GIS with on-screen digitizing on the most recent ortho-corrected imagery (NAIP or other). Gross map acres are derived in the GIS. Road acres as derived in the GIS are removed from stand acres to yield stand net acres for volume expansion purposes.

G) Planted forest Type Coding - When a forested polygon is laid bare due to clear cut or wildfire a new planted forest unit will be created. If the polygon represents a clear-cut code **CC** is temporarily added to the Type field. After the area is planted the species, size and density as described in C) a, b, and c on the previous pages replace the CC code. Code **PT** is added in the understory position in the Type field. (e.g. DF13 PT). If a new planted forest is made due to wildfire code RH is added in the understory position in the Type field. (e.g. DF13 RH)

STAND OR TYPE DESCRIPTIONS

The following table summarizes forest stands or types for the FOREST NAME Forest. Reference is made to the F&W document: MAJOR FOREST TYPES AND MANAGEMENT OPTIONS TO MEET LANDOWNER OBJECTIVES, which is considered a component of this management plan.

Acer Klamath Forest – Major Forest Type (majority volume)

Douglas-Fir	53,471 acres
White/Red Fir	30,653 acres
Pines	60,206 acres
Cedars	2,293 acres
Other Conifers	289 acres
Hardwoods	1,749 acres

Acer Klamath Forest Planted– Major Forest Type (percentage of forest types by unit)

Douglas-Fir	25%
Mixed Conifer	50%
Ponderosa Pine	25%

APPENDIX

F&W FORESTRY STATEMENT ON INVASIVE PLANT SPECIES

Original Draft: February 23, 2021
Revised: March 30, 2021

POLICY STATEMENT
F&W Forestry understands that invasive plants can pose a substantial threat to the management, health, sustainability, and economic viability of forests, agricultural lands, and water resources.

F&W Forestry understands that invasive plant species pose challenges at both the individual forest level and at the landscape level and, as such, effective solutions may require action by both the individual landowner and by institutional and/or governmental bodies to successfully address the problem.

F&W Forestry understands that invasive plants do not recognize property boundaries, that effective control measures can be prohibitively expensive, and that control strategies are evolving and have not yet been fully developed. In some cases, the complexities of the invasive plant problem can exceed the capabilities of individual landowners.

THUS, F&W COMMITS TO …

- Follow all laws and regulations regarding control of invasive plant species.
- Provide our foresters with the tools and training necessary to allow them to recognize invasive species in the regions where they work.
- When invasive plants are recognized on F&W-managed forestland, F&W will evaluate, on a case-by-case basis, the control options available, taking into account the level of threat, the cost of control, and the likely impact of no control.
- Communicate management options and any pertinent stewardship, compliance, or environmental issues to our clients, so that they can make appropriate and informed decisions.
- Implement control measures, upon the approval of our client, and if both operationally and economically feasible.
- If control measures involve the application of herbicides; F&W will assure that herbicides are applied by appropriately trained and licensed personnel, and only according to all label instructions and precautions.
- When required by law, regulation or applicable certification program, F&W will record herbicide applications in an appropriate manner.

As to the use of mulch and seed for erosion control, F&W recognizes that while mulch and seed are commonly used to stabilize soil disturbed by logging and road building activities, such products often contain a variety of ingredients, some of which may contain the seed of invasive species.

THUS, F&W COMMITS TO …

- Obtain from the vendor a listing of the contents of seed and mulch products.
- If required by regulation or an applicable certification program, utilize products certified by the vendor as containing only native non-invasive plant species. In other situations, products certified

by the vendor as containing only seed of native non-invasive plant species will be strongly preferred.

- If required by regulation or an applicable certification program, only hay, straw, or other matting material certified by the vendor as weed-free shall be used. In other situations, hay, straw, or other matting material certified as weed-free by the vendor will be strongly preferred over hay or other products with respect to which such certification cannot be obtained or which are known to contain invasive or unknown seed.
- Should products with non-native or invasive species seed be used, the application date, location and species will be recorded in the project file. If required, the site will be monitored for the designated period.

CERTIFICATION PROGRAM GUIDANCE

American Tree Farm (See ATF Standard 4.2)

Landowner shall consider a range of forest management activities to control pests, pathogens and unwanted vegetation.

Sustainable Forestry Initiative (See Performance Measures 2.2 and 2.4)

Performance Measure 2.2. Program Participants shall minimize chemical use required to achieve management objectives while protecting employees, neighbors, the public and the environment, including wildlife and aquatic habitats.

Performance Measure 2.4. Program Participants shall manage so as to protect forests from damaging agents, such as environmentally or economically undesirable wildfire, pests, diseases, and invasive exotic plants and animals, to maintain and improve long-term forest health, productivity, and economic viability.

To conserve biological diversity: Participation in programs and demonstrations of activities as appropriate to limit the introduction, spread and impact of invasive exotic plants and animals that directly threaten or are likely to threaten native plant and animal communities.

Forest Stewardship Council (See FSC Standard C6.3, 6.6, 6.9, and 7.1)

Indicator 6.3.h The forest owner or manager assesses the risk of, prioritizes, and as warranted, develops and implements a strategy to prevent or control invasive species

C6.6 Management systems shall promote the development and adoption of environmentally friendly non-chemical methods of pest management and strive to avoid the use of chemical pesticides. World Health Organization Type 1A and 1B and chlorinated hydrocarbon pesticides; pesticides that are persistent, toxic or whose derivatives remain biologically active and accumulate in the food chain beyond their intended use; as well as any pesticides banned by international agreement, shall be prohibited. If chemicals are used, proper equipment and training shall be provided to minimize health and environmental risks.

Indicator 6.6.d Whenever chemicals are used, a written prescription is prepared that describes the site-specific hazards and environmental risks, and the precautions that workers will employ to avoid or minimize those hazards and risks and includes a map of the treatment area.

Indicator 6.9.a The use of exotic species is contingent on the availability of credible scientific data indicating that any such species is non-invasive, and its application does not pose a risk to native biodiversity. (This indicator is pertinent to erosion control seed mixes)

Indicator 7.1.f If invasive species are present, the management plan describes invasive species conditions, applicable management objectives, and how they will be controlled.

GLOSSARY OF FORESTRY TERMS COMMON IN THE EASTERN UNITED STATES

AGS	Acceptable Growing Stock. Trees that either are quality sawlogs or have the potential to grow into quality sawlogs (grade 2 or better).
Advance Growth	Young trees that have become established naturally before regeneration cuttings are begun, or a clear-cutting is made.
Basal Area	The area of the cross-section of a tree inclusive of bark at breast height (4.5 ft or 1.37 meters above the ground) most commonly expressed as square feet per acre or square meters per hectare. For a stand, basal area is computed from all living trees.
Biomass	The total quantity, at a given time, of living organisms of one or more species usually expressed in weight per unit area.
Board Foot	A piece of lumber one inch thick, 12 inches wide and 12 inches long or its equivalent. It is used as a volume measure of sawlogs and is commonly expressed by the thousand (MBF).
Cleaning	Elimination or suppression of competing vegetation from stands not past the sapling stage (2-4 inches or 5-10 centimeters) in diameter as measured 4.5 feet or 1.37 meters above the ground. Specifically, removal of (a) weeds, climbers, or sod-forming grasses, as in plantations or (b) trees of similar age and of less desirable species or form than crop trees which they are or may soon be over topping.
Clearcutting	The cutting method that describes the silvicultural system in which the old crop is cleared over a considerable area at one time. Regeneration then occurs from (a) natural seeding from adjacent stands, (b) seed contained in the slash or logging debris, (c) advance growth, or (d) planting or direct seeding. An even-aged forest usually results.
Climax Forest	A plant community that represents for its locality and its environment the culminating stage of a natural succession. When the culminating stage is influenced by topography, it is termed a topographic climax and when maintained by regular fires, it is termed a fire climax.

Co-dominant A tree with its crown in the upper forest canopy but less free than the dominant trees and freer and taller than the intermediates and suppressed trees. A crown class.

Coppice A regeneration method in which standing trees are cut and subsequent crops originate mainly from adventitious or dormant buds on living stumps; but also as suckers from roots and rhizomes.

Cord A pile of 4 foot long pieces of wood, 4 feet high and 8 feet long, occupying 128 cubic feet of space. Solid wood volume of a cord is approximately 85 cubic feet but can vary significantly. It is used as a volume measure of pulpwood, firewood and boltwood. The cord is sometimes defined by its weight equivalent. This, however, is not standardized and varies by species and by mill. The green (fresh cut) weight of a cord of hardwood is commonly 5000 pounds.

Crop Tree A tree that forms, or is selected to form, a component of the final crop, specifically, one selected to be carried through to maturity. Also known as a final crop tree or growing stock tree.

Crown Class Any class into which trees of a stand may be divided based on their crown development and crown position relative to crowns of adjacent trees. Commonly used crown classes are dominant, co-dominant, intermediate and suppressed.

Crown Thinning A thinning that favors the most promising (not necessarily the dominant) stems, with due regard to even distribution over the stand by removing those trees that interfere with them. Also called thinning from above.

DBH Tree diameter at breast height (4.5 feet or 1.37 meters above the ground).

Dominant A tree with its largely free-growing crown in the upper most layers of the forest canopy. A crown class.

Even-Aged The condition of a forest or stand composed of trees having no, or relatively small, differences in age, although differences of as much as 30% are admissible in rotations greater than 100 years of age.

Even-Aged Management The application of a combination of actions that results in the creation of stands in which trees of essentially the same age grow together. The difference in age between trees forming the main canopy level of a stand usually does not exceed 20% of the age of the stand at maturity. Regeneration in a particular stand is obtained during a short period at or near the time that a stand has reached the desired age or size for regeneration, and is harvested. Cutting methods producing even-aged stands are clear-cut, shelterwood, or seed-tree.

Group Selection	The cutting method which describes the silvicultural system in which trees are removed periodically in small groups resulting in openings that do not exceed an acre or two in size. This leads to the formation of an uneven-aged stand in the form of a mosaic of age-class groups in the same forest.
Improvement Cutting	The elimination or suppression of less valuable trees in favor of more valuable trees, typically in a mixed, uneven-aged forest.
Individual Tree Selection	The cutting method that describes the silvicultural system in which trees are removed individually, here and there, each year over an entire forest or stand. The resultant stand usually regenerates naturally and becomes all-aged.
Intermediate	A tree of the middle canopy dominated by others in the dominant and co-dominant crown classes. A crown class.
Intermediate Cutting	Any removal of trees from a stand between the time of its formation or establishment and the harvest cut. Generally taken to include cleaning, thinning, liberation and improvement cuttings, increment felling and sometimes even salvage and sanitation cuttings.
Intolerance	Trees unable to survive or grow satisfactorily under specific conditions, most commonly used with respect to their sensitivity to shade but also to conditions such as wind, drought, salt and flooding.
Low Thinning	A thinning that favors the dominants or selected dominants more or less evenly distributed over the stand by removing a varying proportion of the other trees. Also called a thinning from below.
Overstory	The trees in a forest of more than one story that form the upper or uppermost canopy layer.
Preparatory Cutting	The removal of trees near the end of a rotation, which permanently opens the canopy and enables the crowns of seed bearers to enlarge, to improve conditions of seed production and natural regeneration. Typically done in the shelterwood system.
Regeneration	The removal of tree crop whether by natural or artificial means. Also the young crop itself, which commonly is referred to as reproduction.
Regeneration Cutting	Any removal of trees intended to assist regeneration already present or to make regeneration possible.
Release	Freeing a tree or group of trees from competition by cutting or otherwise eliminating growth that is over topping or closely surrounding them.

Relative Density	A measure of stand density that takes into account variations in growing space requirements of different species and tree sizes within a stand. Usually expressed as a percentage of average maximum density.
Salvage Cutting	The exploitation of trees that are dead, dying or deteriorating (e.g. because they are over mature or have been damaged by fire, wind, insect, fungi, or other injurious agents) before their timber becomes worthless.
Sanitation Cutting	The removal of dead, damaged, or susceptible trees done primarily to prevent the spread of pests or pathogens and so promote forest hygiene.
Scarification	Loosening of the topsoil of open areas, or breaking up the forest floor, in preparation for regenerating by direct seeding or natural seed fall.
Seed Cutting	Removal of trees in a mature stand to effect permanent openings in the canopy (if not done in preparatory cutting) and thereby provide conditions for securing regeneration from the seed of trees retained for this purpose. Also the first of the shelterwood cuttings.
Seed-Tree	The cutting method that describes the silvicultural system in which the dominant feature is the removal of all trees in one cut except for a small number of seed bearers left singly or in small groups, usually 8-10 per acre (20-25 per hectare). The seed trees generally are harvested when regeneration is established. An even-aged stand results.
Shelterwood	The cutting method that describes the silvicultural system in which in order to provide a source of seed and/or protection for regeneration, the old crop (the shelterwood) is removed in two or more successive shelterwood cuttings. The first cutting is ordinarily the seed cutting, and the last is the final cutting. Any intervening cutting is termed removal cutting. An even-aged stand results.
Site	An area considered in terms of its environment as determined by the type and quality of the vegetation it can carry.
Site Index	A measure of site class based upon the height of the dominant trees in a stand at an arbitrarily chosen age, most commonly at 50 years in the East and 100 years in the West.
Stand	A community of naturally or artificially established trees of any age sufficiently uniform in composition, constitution, age, spatial arrangement, or condition to be distinguishable from adjacent communities thereby forming a silvicultural or management entity.

Stand Density A quantitative measure of the degree of crowding of stems within a stand. Usually expressed in number of stems, basal area or crown closure.

Stocking A relative term to describe the adequacy of a given stand density in meeting management objectives. Three levels of stocking are generally recognized:

1. "A" level stocking - The maximum stocking a stand can carry without overcrowding and the resultant loss of growth. Stands with stocking above this level are overstocked.

2. "B" level stocking - The minimum stocking a stand can carry and fully utilize the site. Stands with stocking below the "B" level are under stocked.

3. "C" level stocking - Stands that will require 10 years or less of growth to reach "B" level stocking. These stands are considered potentially adequately stocked.

Structure Of a forest, crop, or stand, the distribution and representation of age and/or size (particularly diameter) classes and of crown and other tree classes.

Succession The gradual supplanting of one community of plants by another.

Suppressed One of the four main crown classes. Very slowly growing trees with crowns in the lower layer of the canopy and leading shoots not free. Suppressed trees are subordinate to dominant, co-dominant, and intermediates in the crown canopy.

Thinning A felling made in an immature stand primarily to maintain or accelerate diameter increment and also to improve the average form of the remaining trees without permanently breaking the canopy. An intermediate cutting.

Type An aggregate of similar stands grouped together to improve statistical analysis and simplify management.

UGS Unacceptable Growing Stock. Sound trees that either do not have the potential to make quality sawlogs, or that have some damage, disease or other conditions that make them a poor risk to survive for future management.

Understory Trees and woody species growing under an overstory.

Uneven-Aged	The condition of a forest, crop, or stand composed of intermingling trees that differ markedly in age. In practice a minimum age difference of 25% of the length of the rotation usually is used.
Uneven-Aged Management	The application of a combination of actions needed to simultaneously maintain continuous high-forest cover, recurring regeneration of desirable species, and the orderly growth and development of trees through a range of diameter or age classes. Cutting methods that develop and maintain uneven-aged stands are single tree selection and group selection.
Yield	The amount of forest produce that may be harvested periodically from a specified area over a stated period in accordance with the objectives of management.

Definitions contained in this glossary are based on those that appear in the December 1983 edition of *Silvicultural Systems for the Major Forest Types of the United States* published by the United States Forest Service, United States Department of Agriculture. In instances where definitions were not available or were not appropriate in the Forest Service publication, composites were prepared from other sources or new definitions developed.

STATEMENT ON WATER QUALITY AND QUANTITY PROTECTION

Original: June 7, 2021
Updated: December 19, 2022

The health and functions of aquatic systems, the human use and enjoyment of surface water resources, and the quality and quantity of groundwater supplies all depend on clean surface waters. As a company, we believe that the production and protection of clean surface water and the production of timber are compatible systems, when forest management follows appropriate practices.

Forested landscapes provide water of outstanding quality. Forestry operations are not typically major contributors to soil erosion and water pollution, but if water quality degradation occurs during operations, it is most often caused by sedimentation and, to a lesser extent, increased water temperature. Most sedimentation originates from roads, skid trails and landings.

It is an objective of all F&W Forestry operations to protect water **quality** in streams, rivers, ponds, lakes, and wetlands on the forests we manage. Primary concerns are the proper construction and maintenance of roads, skid trails and landings, stream and wetland crossings, handling of slash and maintaining adequate riparian protection zones (streamside management zones).

It is an objective of all F&W Forestry operations to protect water **quantity** in streams, rivers, ponds, lakes, and wetlands on the forests we manage.
This objective can be met with such practices as:

- Protections that consider the water quantity baselines and thresholds determined by State agencies.
- Consideration of water quantity in decisions related to water drafting for dust abatement and fire control.

STATEMENT ON WET SEASON/ WET SITE PRACTICES

Original Policy (Fountains Forestry): September 29, 2004
Revised Practices: June 10, 2021

F&W Forestry Services, Inc. takes appropriate steps to plan its forest management activities and operations to avoid damaging water quality and soil productivity when soils are saturated.

F&W Forestry foresters will use appropriate procedures to plan for and manage adverse weather conditions, including:

- Follow all applicable state Best Management Practices and any local regulations in the harvesting of timber and construction of road, landings and skid trails.
- Identify when soil and road conditions are not conducive to forest management and logging activities and plan such activities when conditions are more favorable.
- Schedule harvests to coincide with proper weather conditions and landowner requirements.
- Access drier and more accessible sites that can be harvested during periods of inclement weather.
- Harvest upland portions of tracts that are appropriate for wet weather conditions.
- Maintain several optional sites that can be harvested without causing excessive rutting or other environmental damage.
- Evaluate operations that may require the use of alternative logging systems or should be suspended until weather and soil moisture conditions improve.
- Construct roads during the dry season to allow them to settle and be available for later use.
- Use rock, gravel, filter fabric, tops and branches or other practices as appropriate to stabilize roads and skid trails, minimize erosion, and improve accessibility during adverse weather.

WATER QUALITY AND QUANTITY PROTECTION GUIDELINES

Revised July 2008,
June 2011,
June 2021,
December 19, 2022

Typically, if water quality degradation occurs on a harvesting operation, it is likely to occur as a result of sedimentation from roads, skid trails or landings. Another more minor, but still important, detriment to water quality is an increase in temperature.

Our protection guidelines depend on the type of stream or water body. The overriding goal is to keep sediment out of the water and maintain water temperature. To accomplish the task, we will establish streamside management zones (SMZs). A SMZ is vegetated land adjacent to perennial, intermittent and ephemeral streams and ponds or lakes requiring special attention during forestry operations. It is an area of undisturbed forest soils between disturbed soils and a stream bank. It provides a protective zone to trap and filter out suspended sediments before these particulates reach the stream. For some bodies of water as described below, the SMZ may need to be lightly cut or uncut to protect the aquatic ecosystem. In general, the larger the body of water and the steeper the slope, the wider the SMZ must be.

Every State has Best Management Practices (BMPs) to protect water quality on logging jobs. In some States the BMPs are law. In most States they are recommended practices with varying degrees of enforcement afforded. In all cases, if the laws of the State are more stringent than the guidelines provided here, State law always supersedes these guidelines. In all cases, if protection in excess of these guidelines is necessary to achieve our overall goal of protecting water quality from sedimentation and excessive temperatures, we will provide that added protection.

Every forester will know and understand the BMPs for every State in which he/she operates. Foresters will attend BMP and water quality training and field sessions as they are available and applicable to their operating conditions. As needed in particular situations, the appropriate water quality enforcement officer should be consulted to determine the right level of water protection.

Often, ongoing operations are suspended for any number of reasons including markets, logging labor availability, season, weather, etc. When logging jobs are suspended, water quality control structures should be installed sufficient to ensure soil stability and to prevent sediment from entering water bodies.

It is an objective of all F&W Forestry operations to protect water quantity in streams, rivers, ponds, lakes, and wetlands on the forests we manage. These protections may consider the water quantity baselines and thresholds determined by State agencies. Additional measures relate to water drafting for dust abatement and fire control.

As an example of practices related to harvest season, in the northeast, winter logging jobs come to a halt for spring “mud season”. Sometimes the harvesting is complete while at other times operations are simply suspended until ground conditions allow the operation to continue. Usually, the ground is still frozen solid when winter operations are shut down. On winter logging jobs suspended because of spring conditions or completed by winter’s end when the ground is still frozen, temporary water diversion structures will be installed if possible and as necessary. Once the snow melts, a forester will inspect the site to determine if more substantial, emergency action is necessary. If so, water diversions will be

installed immediately or as soon as conditions allow. If the site is stable, permanent close out will occur within the term of the timber sale/service contract but in no case later than mid-July. On winter logging jobs, the need for waterbars or other water diversions can often be anticipated pre-harvest. Foresters should consider pre-installing water diversions where there exists the risk of significant erosion during and after snowmelt. Resulting decisions will be recorded in the Pre-Harvest Plan.

The guidelines below refer most specifically to skid trail placement, operational buffers, etc. Road and landing location and construction should occur outside the delineated SMZs except that roads should cross streams at right angles. Culvert placement and size should closely follow BMP recommendations by the State. SMZ widths stated are a minimum. They should be increased as slope increases.

These guidelines are provided for application in areas without specific BMP requirements. Practice should follow either State BMP's or these standards, whichever is more protective.

Ephemeral Streams

Definition - Ephemeral streams are streams that flow as a result of wet weather conditions when the ground is saturated (less than 40% of the year). They disappear soon after the rain or snowmelt event has ceased. Ephemeral streams do not provide permanent aquatic habitat. Typically, ephemeral streams are not depicted on USGS topographic maps.

Operational Protection – Ephemeral streams are often difficult to find, especially under snow cover. Overall, protection is aimed at keeping machinery from skidding in them, exposing mineral soil to the next runoff. Skid trail crossings will be kept to a minimum and will be at right angles to the flow.

Intermittent Streams

Definition – Intermittent streams have well defined banks and natural channels but typically have water flow for only a portion (40%-90%) of the year. Intermittent streams do not provide permanent aquatic habitat. They are usually depicted on USGS topographic maps as a broken blue line.

Operational Protection – A 25-foot machine exclusion zone on either side of the centerline of the channel should be painted or flagged. Logging debris should be removed from the stream channel. Skid trail crossings should be kept to a minimum, will be pre-approved by the inspecting forester and at right angles to the flow.

Perennial Streams

Definition – Perennial streams have well defined banks and natural channels and have continuously flowing water most years. Perennial streams do provide habitat for aquatic plants and animals. They are usually depicted on USGS topographic maps as a solid blue line.

Operational Protection – A 50-foot buffer zone on either side of the stream channel should be flagged if the harvest will exceed the removal constraints within the buffer. Within this buffer zone, no more than 50% of the basal area should be removed in any 10-year period with the intent of always maintaining shade for the stream. A machine exclusion should be painted or otherwise delineated 25 feet on either side of the stream channel. Logging debris should be removed from the stream channel. This protection should apply to ponds smaller than 10 acres and open wetlands. All stream crossings will allow for passage by aquatic species by matching the natural stream depth, velocity, and substrate.

Large Streams/Rivers/Ponds/Lakes

Definition - Large Streams/Rivers are defined as double line streams as depicted on a USGS topographic map. Ponds/Lakes as defined here are open water bodies larger than 10 acres.

Operational Protection – A no cut, machine exclusion zone of a minimum of 25 feet is recommended and should be painted. Between this zone and 100 feet only a third of the basal area should be removed every 10 years. This zone should be flagged. Logging debris should be pulled out of the 25 foot no cut zone.

QUALITY AND QUANTITY PROTECTION GUIDELINES
ROAD CONSTRUCTION

Original (Fountains Forestry): September 2004
Revised: June 2021
December 19, 2022

Typically, if water quality degradation occurs on a harvesting operation, it is likely to occur as a result of sedimentation from roads, skid trails or landings. Another more minor, but still important, detriment to water quality is an increase in temperature.

Our protection guidelines depend on the type of stream or water body. The overriding goal is to keep sediment out of the water and maintain water temperature. To accomplish the task, we will establish streamside management zones (SMZs). A SMZ is vegetated land adjacent to perennial, intermittent and ephemeral streams and ponds or lakes requiring special attention during forestry operations. It is an area of undisturbed forest soils between disturbed soils and a stream bank. It provides a protective zone to trap and filter out suspended sediments before these particulates reach the stream. For some bodies of water as described below, the SMZ may need to be lightly cut or uncut to protect the aquatic ecosystem. In general, the larger the body of water and the steeper the slope, the wider the SMZ must be.

Every State has Best Management Practices (BMPs) to protect water quality on logging jobs. In some States the BMPs are law. In most States they are recommended practices with varying degrees of enforcement afforded. In all cases, if the laws of the State are more stringent than the guidelines provided here, State law always supersedes these guidelines. In all cases, if protection in excess of these guidelines is necessary to achieve our overall goal of protecting water quality from sedimentation and excessive temperatures, we will provide that added protection.

Every forester will know and understand the BMPs for every State in which he/she operates. Foresters will attend BMP and water quality training and field sessions as they are available and applicable to their operating conditions. As needed in particular situations, the appropriate water quality enforcement officer should be consulted to determine the right level of water protection.

These guidelines refer most specifically to stream crossings. Culvert placement and size, cross drainage structures, ditch placement, etc. should closely follow BMP's. The following guidelines should be followed as closely as practically possible.

- Use stream crossings only when absolutely necessary. Keep stream crossings to a minimum.

- Cross streams by the most direct route and at right angles to the stream channel.

- Whenever possible, find crossing sites that have stable banks, a firm stream bottom, minimal surface runoff and gentle slopes on the approaches.

- Avoid direct ditch termination by using cross drainage culverts. Divert road drainage into undisturbed vegetation, preferably outside the SMZ, so that drainage does not directly enter a stream.

- Fill over a culvert or construct a bridge so it is higher than the road approach on either side to prevent surface road runoff from draining directly into the stream. If making the crossing higher than the approaches in not possible, use a broad-based dip on either side of the crossing to accomplish the same result.

- Stabilize exposed soil around culverts and bridges immediately after installation using seed and mulch (free of anu non-native invasive species) and install temporary sediment control structures as necessary to control siltation.

- Generally, install stream crossings that are 2.5 times the cross-sectional area of the stream for roads that will be maintained on a regular basis and 3.5 times for infrequently maintained roads.

- Except in unusual circumstances, cross drainage culverts should be no smaller than 12” in diameter.

Most state BMP publications have a more complete discussion on the above and should be consulted prior to any road construction project.

COUNTY OF SISKIYOU
COMMUNITY DEVELOPMENT DEPARTMENT – PLANNING DIVISION
806 South Main Street · Yreka, CA 96097

REGISTERED PROFESSIONAL FORESTER CERTIFICATION OF LIST C CONFORMANCE

Project: Z2406 – Acer Klamath Forest Willow Creek /Williamson Act Agricultural Preserve to TPZ Rezone

Property Owner: Acer Klamath Forest, LLC

Assessor's Parcel Number (APN)	Existing Use / Land Cover	Current Zoning	Proposed Zoning	Approx. Acreage
004-150-040	Timberland / Grazing	WA – Ag Preserve	TPZ	640 acres
004-150-100	Timberland / Grazing	WA – Ag Preserve	TPZ	160 acres
004-160-010	Timberland / Grazing	WA – Ag Preserve	TPZ	160 acres
004-160-020	Timberland / Grazing	WA – Ag Preserve	TPZ	160 acres
004-160-030	Timberland / Grazing	WA – Ag Preserve	TPZ	640 acres
004-160-040	Timberland / Grazing	WA – Ag Preserve	TPZ	360 acres
004-170-020	Timberland	WA – Ag Preserve	TPZ	40 acres
004-170-030	Timberland	WA – Ag Preserve	TPZ	160 acres
004-170-130	Timberland	WA – Ag Preserve	TPZ	280 acres
Total Acreage				≈ 2,600 acres

RPF Statement

I, John Vona, Registered Professional Forester No. 3044, have personally reviewed the

Acer Klamath Forest Management Plan prepared by F&W Forestry Services (August 2, 2023) and the associated maps and parcel information submitted for the above-referenced application, including the Zone Change Application for the Willow Creek Parcels (April 23, 2025).

Based on my review and knowledge of the above listed properties, identified by their APN, I hereby certify that:

1. The subject parcels are devoted to and used for the growing and harvesting of timber, consistent with Government Code §§ 51104(f) and 51113.

2. The Acer Klamath Forest Management Plan meets the informational and technical content requirements of the Siskiyou County "List C" Criteria for Timber Preserve Zoning (adopted April 11, 1978).

3. The property currently meets the stocking standards of the California Forest Practice Rules (14 CCR § 932.7) and is managed to maintain those standards through periodic inventory and reforestation.

4. The forest stands, access, silvicultural systems, and fire-protection measures described in the plan and accompanying documents represent sustained-yield timber management appropriate for TPZ zoning.

RPF Certification

I certify under penalty of perjury that the foregoing statements are true and correct and that the management plan meets the applicable requirements of State law and County policy for List C conformance.

Signature: John Vona

Name (Print): John Vona

RPF No.: 3044

Date: 11/11/202

Company / Affiliation: FWS Forestry, managing consultant for Acer Klamath Forest

Phone / Email: jvona@fwsforestry.com 206-384-7440

RESOLUTION ADOPTING THE CRITERIA
FOR LIST "C" FOR TIMBER PRESERVE
ZONING

WHEREAS, pursuant to Section 51100 of the Government Code the Board of Supervisors has adopted procedures for zoning Timber Land preserve and,

WHEREAS, the Board of Supervisors formed a Timber Advisory Committee and has requested said committee to prepare a criteria for inclusion of timberland under List "C", and;

WHEREAS, the Timber Preserve Advisory Committee on February 15, 1978 prepared said criteria for presentation to the Board of Supervisors and;

WHEREAS, the Board of Supervisors has reviewed said criteria and deemed said criteria appropriate;

NOW THEREFORE BE IT RESOLVED BY THE BOARD OF SUPERVISORS has adopted the attached Exhibit "A" as the criteria for List "C" for Timber Preserve Zoning.

The foregoing resolution was adopted at a regular meeting of the Board of Supervisors of the County of Siskiyou, State of California, held the 11th day of April 1978 by the following vote:

AYES: Supervisors McArdle, Hayden, Belcastro and Torrey.

NOES: None.

ABSENT: None.

Signed and approved by me after its passage this 11th day of April 1978.

Chairman of the Board of Supervisors

ATTEST: Norma Price, County Clerk

by Lou Jurkovsky
Deputy

RESOLUTIONS
NO. 119
BOOK 8

EXHIBIT "A"

CRITERIA FOR LIST C

TO BE CONSIDERED FOR INCLUSION INTO TIMBER PRESERVE ZONING ALL APPLICANTS SHALL PROVIDE THE FOLLOWING INFORMATION AND/ OR MEET THE FOLLOWING MINIMUM STANDARDS:

1) Map showing legal description and the assessor's parcel number(s) and map(s). Additionally, as part of the management plans, the map shall contain the following elements.

   a.) stated scale (scale shall not be less than 4 inches per mile).
   b.) location of existing roads and principal streams.
   c.) broad timber types including any unstocked areas.
   d.) estimated site classes.
   e.) name of owners of surrounding lands and type of zoning.
   f.) total number of areas in parcel.
   g.) total number of stocked areas.
   h.) total areas of the various site classes.
   i.) date.
   j.) name of preparer.

2) A plan for forest management of the parcel prepared by, or approved as to content by a registered professional forester. The plan shall address the following considerations:

   a.) Status of access, both legal and physical.
   b.) Approximate age and condition of forest stands.
   c.) Statement of owner's objective in owning and managing the property.
   d.) Measures to be employed for the control of insects & diseases.
   e.) Measures, if any, for stocking understocked areas and for treating overstocked areas.
   f.) Plan for protection from fire, trespass and other agents.
   g.) Timetable for eventual harvest.
   h.) Schedule for inventory.
   i.) Evidence that the owner possesses the knowledge to manage the forest property, or has sought advice and information from appropriate sources.
   j.) Signature and License number of Registered Professional Forester.
   k.) Signature of owner
   l.) Date.

3) The parcel shall currently meet the stocking standards of the Forest Practice Rules, or the owner must enter into an agreement with the Board to meet the standards within five years.

4) The parcel shall contain a minimum equivalency to 40 acres of site Class III Timberland to the following productivity schedule:

Site Class	Minimum Number of Acres*	Minimum Parcel Equillivency
I	18 Acres	2.2:1
II	25 Acres	1.6:1
III	40 Acres	1:1
IV	80 Acres	1:2
V	120 Acres	1:3

* Based on Relative productivity of Site Classes. Tech. Bulletin #354 USDA Dunning & Reineke