

**DEPARTMENT OF FORESTRY AND FIRE PROTECTION**

P.O. Box 944246
SACRAMENTO, CA 94244-2460
(916) 653-7772
Website: www.fire.ca.gov



Date: January 18, 2017
RE: THP # 1-97NTMP-002 MEN
Major Amendment #5

Kristen McMenomy, GSA Director
County of Mendocino
501 Low Gap Road
Ukiah, CA 95482

Dear Mrs. McMenomy:

As plan submitter signatory to the above Nonindustrial Timber Management Plan (NTMP), I am writing to notify you of the disapproval of Major Amendment #5. The basis for the disapproval is provided below.

Factual Background

NTMP # 1-97NTMP-002 MEN (the NTMP) is located in Mendocino County in the Coast Forest District. The legal description of the NTMP's location is Sections 9 and 10, Township 16 North, Range 17 West, Mount Diablo Base & Meridian, and is located in the Comptche SW 7.5' USGS Quadrangle. The NTMP is 535 acres in size.

Major Amendment #5 to the NTMP (the amendment) was submitted to CAL FIRE on August 27, 2014. The amendment proposed to update the timber stand information in the NTMP, including revising the growth and yield projections and the cutting cycle. The amendment was returned on September 2, 2014, due to deficiencies in the analysis.

The amendment was resubmitted on September 5, 2014, and accepted for filing on September 11, 2014. On September 25, 2014, CAL FIRE conducted a preharvest inspection (PHI) of the amendment area. The CAL FIRE PHI Report made the following recommendation:

CAL FIRE PHI Recommendation #1: *Prior to the Second Review Team meeting, the RPF shall work with CAL FIRE to verify the model outputs generated by the cruise data.*

On February 18, 2015, Kristin McMenomey, GSA Director with Mendocino County sent an email to Chris Maranto from CAL FIRE indicating that the Registered Professional Forester (RPF) who prepared the amendment (Rodger Sternberg) was no longer authorized to conduct any further work on the amendment. On August 6, 2015, CAL FIRE's Charles Martin spoke with Mr. Robert Morgan from Mendocino County, and Mr. Morgan indicated that the County would proceed with the amendment.

On December 29, 2016, CAL FIRE conducted the Final Interagency Review (Second Review) of the amendment, and CAL FIRE Review Team Chair Charles Martin recommended that the amendment not be found in conformance with the Forest Practices Rules. Specifically, the Second Review Team recommendation stated:

NOTE TO DIRECTOR'S DECISION MAKER: *This amendment was submitted to conform to the requirements of the NTMP to reinventory the timberstands by 2016 (NTMP page #23). Review of the inventory growth and yield data found inconsistencies between observed volume per acre and the modeled value. The PHI focused on verification of inventory methods and found the methods appropriate and the data accurate. Review of the information determined that there was a modeling error that overestimated volume values. The review requested updated modeling. Review halted at this point and no further information was developed by the Timberland Owner.*

The last correspondence from the Timberland Owner was an email dated 2/18/15 stating that the Board of Supervisors had not authorized any further work on the project. The Timberland Owner contacted the department on 8/6/15 stating that they would move forward with the amendment but no additional information was received. To date, the RPF no longer is employed to work on the amendment. I have attempted to get clarification from County Planning but have received no additional direction. At this time, the Timberland Owner appears to have abandoned the amendment. Additionally, the time-laps between the inventory, modeling and any further review would likely require additional inventory work to update the data and complete remodeling to account for the growth since the inventory was conducted in 2013.

Second Review Team Recommendation: The major deviation shall be found not in conformance per 14CCR 898.2(c). There is evidence that the information contained in the plan is incorrect, incomplete in a material way. Per 14CCR 1090.2, it is my professional judgment that due to the laps in time between the submitted inventory and any required remodeling of the data, the information provided cannot be brought into conformance. New information submitted through the deviation process is required to meet the intent of the approved NTMP.

Legal Background

A non-industrial timber management plan may be filed with the department in writing by a person who intends to become a nonindustrial tree farmer with the long-term objective of an unevenaged timber stand and sustained yield through the implementation of a nonindustrial timber management plan [ref. PRC 4593.3]. To meet the objective of maintaining and/or developing an unevenaged timber stand and producing a sustained yield of timber, 1-97NTMP-002 MEN page 23 states that "the plan requires a reinventory by 2016 to insure a growth rate above 2% and still meet MSP [Maximum Sustained Production of High Quality Timber Products]". The amendment proposed to

update the information in the NTMP in order to comply with PRC 4593.3 and page 23 of the NTMP, but through the review of the amendment, it was determined that the information in the amendment was not accurate. As of the date of this letter, it was determined that enough time has elapsed that the modelling should be updated to the current year (2017).

Amendment #2 to the NTMP added Mr. Rodger Sternberg as the RPF responsible for this NTMP, including "the responsibility to perform any and all work required of an RPF [in] relation to NTMP implementation, including the authority to submit NTMP amendments and Notice of Timber Operations". It appears that Mr. Sternberg has not been retained as an RPF by the plan submitter as required by 14 CCR 1090.9(a), yet Mr. Sternberg has not been amended off the NTMP. Per 14 CCR 1090.9(d), "within five (5) working days of a change in RPF responsibilities for NTMP implementation or substitution of another RPF, the plan submitter is required to file with the Director a notice which states the RPF's name and registration number, address, and subsequent responsibilities for any RPF required field work, amendment preparation, or operations supervision".

The Director shall review plans to determine if they are in conformance with the provisions of the rules adopted by the Board and with the Forest Practice Act [ref. 14 CCR 898.1; PRC § 4593.7]. On December 29, 2016, the Second Review Team Chairman determined that the amendment shall be found not in conformance per 14CCR 898.2(c). There is evidence that the information contained in the plan is incorrect or incomplete in a material way. "If the director determines that the plan is not in conformance with the rules and regulations of the board or of this chapter, the director shall return the plan, stating his or her reasons and advising the person submitting the plan of the person's right to a hearing before the board" [ref. PRC 4593.7(a)].

Reasons the Plan is Not in Conformance

Major Amendment #5 to 1-97NTMP-002 MEN is not in conformance with the California Forest Practice Rules and is being returned for the following reasons [ref. 14 CCR 4593.7(b)]:

- a) Review of the amendment has determined that the inventory modelling is no longer accurate. Per 14 CCR 1090.5(h) and the requirement of NTMP page 23, the inventory modelling shall be updated to the current year (2017). This updating is required to meet the intent of the NTMP and the Forest Practice Rules.
- b) Per 14 CCR 1090.9(a), the plan submitter shall ensure that an RPF conducts any activities that require an RPF.

Without the incorporation of the information and/or analysis outlined above, the amendment is not in conformance with the Act and Rules and is being denied for approval under 14 CCR 898.1, PRC 4593.7(b), and PRC 4593.8.

Timber operations proposed under 1-97NTMP-002 MEN and Major Amendment #5 are not approved and shall not commence.

You have the right to a public hearing before the State Board of Forestry and Fire Protection, provided you request such a hearing within ten (10) days of your receipt of this returned Amendment # 5 in accordance with the provisions of 14 CCR 1054, *et seq.* The appeal should be directed to:

Matt Dias, Executive Officer
California State Board of Forestry and Fire Protection
1416 Ninth Street, P.O. Box 944246
Sacramento, CA 94244-2460

Sincerely,



Dominik Schwab
Forester III, Forest Practice
RPF #2823

Cc: Unit
File

[ftp://thp.fire.ca.gov/THPLibrary/North Coast Region/](ftp://thp.fire.ca.gov/THPLibrary/North_Coast_Region/)

AMENDMENT NO 5 (major) to NTMP

Santa Rosa Review Team@CALFIRE

From: Roger Sternberg <rsternberg@mcn.org>
Sent: Friday, September 05, 2014 8:13 AM
To: Santa Rosa Review Team@CALFIRE
Cc: Markham, Leslie@CALFIRE; Maranto, Chris@CALFIRE; Michael.Powers@fire.ca.gov; Martin, Charlie@CALFIRE; McMenomey, Kristin@CoMendocino; Tom Peters; Bob Morgan; Greg Giusti; Steve Smith; Mitch Haydon; Adam Steinbuck; Linda Perkins
Subject: Revised Request for Deviation No 5
Attachments: Little River Airport Request for Deviation No 5. NTMP 1-97 NTMP-002 MEN 9-5-14 (Autosaved).pdf

Accepted for filing SEP 11 2014

Santa Rosa Review Team,

Attached is a revised Request for Deviation #5 for the Little River Airport NTMP.

Please contact me if you have any questions.

Roger Sternberg

--
Roger Sternberg Forestry and
Land Conservation Consulting Services
P.O. Box 1211
Mendocino, CA 95460

Tel: (707) 937-0776

This email is free from viruses and malware because avast! Antivirus protection is active.
<http://www.avast.com>

OFFICE OF MENDOCINO
BOARD OF SUPERVISORS
2017 JAN 25 PM 11 40
EXECUTIVE OFFICE
PER
MENDOCINO

RECEIVED

SEP 05 2014

COAST AREA OFFICE
RESOURCE MANAGEMENT

**Request for Deviation No. 5: 1-97-NTMP-002 MEN
Little River Airport**

Page 14.

(1) First paragraph, last sentence. Revise the language to read:

“To create and maintain an unven aged forest, all tree sizes (greater than 10”) will be harvested as well as a percentage of all tree sizes will be protected.

Explanation: The diameter of trees to be harvested is proposed to be decreased from 12” to 10”.

Justification: It was determined by the RPF that clumps of redwoods and other conifer would benefit from thinning by harvesting a limited number of 10” DBH trees that have some commercial value. This will enhance the growth of the remaining trees.

Note that the number of 10” marked to date is approximately 20, which has no statistical effect on the data submitted in this amendment. These 10” trees were lumped in with 12” trees in the data analysis.

Pages 17-18.

(1) Substitute the attached tables entitled “Per-Acre Stand Statistics,” “Per Acre Stand and Stock Table – All Stands” and the “Timber Inventory as of January 1, 2014 – Forsee Growth Model Summary” for those provided on these pages.

Explanation: These tables provide updated data that have been used for remodeling growth and determining harvesting levels. Data are provided on the overall forest and individual stands (A-C) per the Vegetation Map on page 62 of the NTMP.

Justification: An update of the stand data and modeling was scheduled for 2016. However, the decision was made that forest management should be based on updated information to meet the objectives identified in the NTMP.

Insert the following additional information on pages 17-18:

Sampling procedures used in the 2013 cruise were as follows:

- 1) *A 1/100 acre circular fixed plot was used to measure trees 4.5' in height in the 8" class and below. The following data were recorded:*
 - a) *Species*
 - b) *DBH*
 - c) *Total tree height subsample of each species to the nearest foot*
 - d) *Live crown ratio to the nearest 5% on the trees measured for height*
- 2) *A distance limited (1/4 acre) variable plot sampling was used via a relascope employing a 40 BAF in stands A and C, and a 62.5 BAF in stand C. The following data were recorded:*
 - a) *Species*
 - b) *DBH in 1" classes*

RECEIVED

SEP 05 2014

**COAST AREA OFFICE
RESOURCE MANAGEMENT**

- c) Total tree height subsample of each trees species per sample point
- d) Live crown ratio to nearest 5% of each tree sampled for height
- e) Defect in 16ft logs in 10% increments
- 3) A 1/4 acre circular fixed plot was used to measure all live trees over 42" DBH in the areas sampled with a 40 BAF and 59" DBH in the areas sampled with a 62.5 BAF
- 4) 5 site trees were sampled for each stand. The following data were recorded:
 - (a) Species
 - (b) DBH to nearest .1"
 - (c) Height to nearest 1 foot
 - (d) DBH Age
 - (e) Live crown ration to nearest 5%
- 5) Heights were measured using a clinometer or laser rangefinder
- 6) Diameters were measured using a diameter tape

Merchantability specifications used in the 2013 cruise and resultant Coefficient of Variation and Standard Error:

- 1) Redwood volume equation = Bulletin 1907, 16 foot logs, 6" dib Minimum DBH for Volume = 8"
- 2) Douglas-fir/Grand Fir volume equation = Bulletin 1907, 16 foot logs, 6" dib
- 3) Bishop Pine vol equ = Wensel/Olsen, Hilgardia v62, PP 16 foot logs, 6" dib
- 4) Cypress and Hemlock = Bulletin 1907, Other conifer, 16 foot logs, 6" dib
- 5) Merchandized using field log defect
- 6) Tree volume rounded to the nearest 1 board foot
- 7) Conk was examined on fir trees and deductions were made based on level of conk infestation; Defect measured in 10% increments
- 8) Broken tops were noted at the 16' log increment

Standard error is a standard output of the FORSEE model. The standard error is the standard deviation (or amount of variation from the average) of the sampling distribution of a statistic. The coefficient of variation is not a standard output of the FORSEE model. Coefficient of variation is a normalized measure of dispersion of a frequency distribution, and is a ratio of the standard deviation to the mean. For this inventory, coefficient of variation has been calculated as a percentage (and sometimes referred to as a relative standard deviation), for individual species, conifer and hardwood totals for each stand. The following table summarizes the percent standard error and percent coefficient of variation for each species within each stand.

Stand A

Species	TPA %SE	TPA %CV	BA %SE	BA %CV	Gvol %SE	Gvol %CV
Conifers	28.8	64.5	19.9	44.5	35.6	79.5
Redwood	96.9	216.6	61.3	137.2	89.0	199.0
Douglas-fir	100.0	223.6	100.0	223.6	-	-
Bishop Pine	37.8	84.6	24.9	55.6	39.0	87.1
Cypress	46.0	102.9	23.5	52.6	62.8	140.4
Hardwoods	100.0	223.6	100.0	223.6	-	-
Chinquapin	100.0	223.6	100.0	223.6	-	-

Stand B

RECEIVED

SEP 05 2014

COAST AREA OFFICE
RESOURCE MANAGEMENT

Species	TPA %SE	TPA %CV	BA %SE	BA %CV	Gvol %SE	Gvol %CV
Conifers	28.5	139.6	9.3	45.7	13.1	64.1
LS	44.6	218.5	46.2	226.5	48.4	237.0
Redwood						
Redwood	38.7	189.6	14.7	71.8	13.7	67.3
Douglas-fir	31.3	153.5	29.7	145.6	33.0	161.9
W. Hemlock	45.0	220.4	62.7	307.0	73.9	361.9
Grand Fir	89.7	439.2	68.7	336.4	69.6	341.2
Bishop Pine	54.1	265.1	26.8	131.3	27.3	133.5
Cypress	69.3	339.3	97.8	479.2	100.0	489.9
Hardwoods	44.2	216.6	58.4	285.8	70.7	346.5
Tanoak	50.3	246.4	49.2	240.8	-	-
Chinquapin	62.0	303.7	63.6	311.5	70.7	346.5

Stand C

Species	TPA %SE	TPA %CV	BA %SE	BA %CV	Gvol %SE	Gvol %CV
Conifers	40.9	81.7	11.3	22.6	5.9	11.8
Redwood	43.6	87.3	15.2	30.5	19.7	39.3
Douglas-fir	100.0	200.0	100.0	200.0	100.0	200.0
Bishop Pine	63.8	127.5	60.0	120.0	57.8	115.5
Hardwoods	100.0	200.0	100.0	200.0	100.0	200.0
Tanoak	100.0	200.0	100.0	200.0	100.0	200.0

RECEIVED

SEP 05 2014

COAST AREA OFFICE

Variance between inventory values:

Stand values from the inventory for the 1997 NTMP and the 2013 inventory differ. This variance occurs primarily in Stand C. It should first be noted that there is very little difference in inventory values in the stand B, which represents 80% of the productive forest. The differences in inventory values in both stands A and C are likely the direct result of the difference in location of the sample points taken in 1996 and 2013.

To ensure that the sampling conducted in 2013 was accurate, on August 5, 2014 the RPF checked the heights, diameters, and basal area in the 4 sample points in Stand C – the stand with the most difference in values. The RPF confirmed that the original measurements were accurate.

Combining Site Classes II and III in Stand B in the 2013 inventory:

Cruise data were not broken down in Stand B by Site Class for the following reasons: 1) There were no available cruise data indicating where the Site II and Site III Class break occurred in the inventory conducted for the 1997 NTMP. 2) The majority of the soils in Stand B is Ferncreek Sandy Loam, which has a Site Class of III for both redwood and Douglas-fir. 3) Site Class is averaged in the growth model component of FORSEE based on site trees that were measured. 4) The small size of the overall forest.

Inventory Plot Configuration (See Inventory Plot Map in Appendices.):

Plot number 49 was added to generate an additional sample in the middle portion of Stand A in

an attempt to avoid the edges of the stand and improve the statistical confidence of the estimate. Plot numbers 50, 51 and 52 were added to Stand B at the conclusion of the inventory because the RPF felt that the grid sampled locations did not reflect the variability of composition and structure of the stand. However, based on the data, the average of these three plots almost exactly matches the average gross volume of all Stand B plots combined. It is important to note that the addition of these plots are still considered a random sample and were technically unnecessary to obtain a valid sample for the individual stands.

The lack of plot distribution in the southern end of Stand B was a function of problems that we ran into in the field. After reviewing the aerial photo covering Stand B, the RPF determined that the vegetation in the southern area was homogenous with the other areas sampled and that additional sampling was unnecessary.

Variance in Acreage Sizes of Stands:

There is a slight difference in the acreage size of Stands A-C in the 1997 NTMP and the current stand reports. This difference is attributed to using GIS measurements of the stand versus acreage calculations using the grid method in 1997.

(2) Under "Current Condition of the Redwood-Douglas-fir –Grand fir Forest: Delete the second sentence in the second paragraph that states, "Species composition will be maintained at current levels throughout the NTMP."

Substitute the following language: *Maintaining components of all conifer and hardwood species is an important goal for forest management in terms of wildlife and forest health. As the Foresee Growth Model Summary for 2014 indicates, all conifer and hardwood species are represented post-harvest. Future inventories shall evaluate the species distribution to ensure the retention of all species, recognizing that climate change, catastrophic events, disease, and infestation may have an impact on species distribution that is unassociated with forest management.*

At the present time, post-harvest volumes of Bishop pine represent approximately 15.5% of conifer by volume. The mature pine in the overall stand is approximately 80-100 years old, and as the 1997 NTMP correctly predicted, "blowdowns and beetle infestation are expected in these stands as they mature." Currently, there is a substantial amount of mortality and dieback of pine, which is anticipated to continue. As a result, the percentage of Bishop pine in the overall stand is expected to decline naturally.

Combined volumes of tanoak, chinquapin, and other hardwoods represent approximately 2.4% of the post-harvest volume of the overall stand. In Stand B, current stocking of these species represents 1.9% of the current combined volume of conifer and all hardwood species. All hardwood species in Stand B represent 4.5% of the total basal area. The current level of hardwood stocking is, thus, consistent with the goal of maintaining species diversity in the overall stand and very little hardwood is to be harvested in the proposed 2014 operations.

Given the above data, it is not anticipated that the low levels of stocking of all hardwood species will affect long-term sustained yield of redwood and Douglas-fir in Stand B or the overall stand. Harvest of hardwoods, however, may be appropriate in the future to maintain long-term sustained yield and will be a result of analyzing the results of future cruise data.

RECEIVED

SEP 05 2014

COAST AREA OFFICE

Description of FORSEE model:

The Forest and Stand Evaluation Environment (FORSEE) is a software product of the California Growth and Yield Modeling Cooperative (CAGYM). FORSEE is a distance independent tree model volume compiler and growth and yield modeling program. Tree growth projections were made using the CRYPTOS (Cooperative Redwood Yield Project Timber Output Simulator) tree growth model, as this model is appropriate for the coast redwood forest type (Wensel et al. 1987). Growth and yield outputs are modeled in a series of 5 year periods.

Individual tree data (Species, DBH, Height, Crown, etc.), stand data (forest type, acres, number of samples, inventory date, etc.), and site tree data (Stand, Species, Height, Age, etc.) are loaded into FORSEE, sample design and inventory merchantability specifications are selected, and FORSEE compiles individual tree metrics (basal area, volume, etc.). FORSEE returns computed metrics in the form of MS Access tables for individual trees, plots, stands, and property totals.

The FORSEE program has two separate procedures for modeling growth and harvest projections: a Visual Stand Environment (VSE) module in which the user interactively sets each modeling parameter for each time period modeled; and a Batch Processing module where the user scripts the parameters for each scenario (harvest, regeneration, and growth period) and then runs the model for all stands in one session. For this project, the Batch Processing module was used.

Because the NTMP dictates the level of harvest based on growth, the FORSEE harvest regime was set to harvest the appropriate amount allowed by the NTMP. The FORSEE modeled activities to begin at the start of the period. After harvest a sprout routine was run for redwood and tanoak which was projected to sprout at 70% of normal rate and ingrowth was added at the end of the 5 year growth period. Following these treatments the stand was "grown" for 15 years at which time the harvest and sprout routines were repeated.

A series of MS Access queries and reports were created to report the information that forest managers typically want/need for effective management of forest lands.

Explanation: Species distributions by volume have changed since the 1997 NTMP (see table below). This change is due in part to increased mortality of grand fir and Douglas-fir (attributed to age) since the 1997 Plan. The difference in species distribution may also be attributed to the variance inherent in the sampling that occurred. Thus, adhering to the specific species distributions cited on page 17 is unattainable based on the realities on the ground.

Redwood-Douglas-fir –Grandfir Forest

Species	Percentages in 1997	Percentages in 2014
RW	51	60.8
DF	33	21.6
GF	16	4.1
BP	-	9.5
CYP	-	1.0

RECEIVED

SEP 05 2014

**COAST AREA OFFICE
RESOURCE MANAGEMENT**

In addition, the concept of maintaining a fixed percentage of species distribution is infeasible due to the natural variability that is anticipated throughout the life of the NTMP. Regeneration of some species may occur at greater levels than projected or desired. This is currently the case with western hemlock. Growth rates of different species will likely vary, which will in turn result in differences in volumes of species that will directly affect overall species distribution.

Justification

The revised language is consistent with the original intent of the NTMP to retain a diversity of tree species within this stand, as well as throughout the harvest area.

RECEIVED

SEP 05 2014

**COAST AREA OFFICE
RESOURCE MANAGEMENT**

Little River Airport NTMP

Timber Inventory as of January 1, 2014

FORSEE Growth Model Summary

<i>Year</i>	<i>Average Basal Area per acre pre- harvest</i>	<i>Average Gross Volume per acre pre- harvest</i>	<i>Total Standing Volume pre- harvest</i>	<i>Harvest Volume</i>	<i>Average Basal Area per acre post- harvest</i>	<i>Average Gross Volume per acre post- harvest</i>	<i>Average Gross Volume per acre period end</i>	<i>QMD start</i>	<i>QMD post- harvest</i>
<i>Species Group</i>									
2014.									
Conifers	308	50,495	2,918,591	694,693	223	38,230	41,748	11.52	11.64
Late Seral Redwood	25	6,730	388,997	0	25	6,730	6,730	41.99	41.99
Redwood	173	23,971	1,385,548	400,783	116	16,896	18,845	9.99	10.16
Douglas-fir	46	10,933	631,905	177,870	32	7,792	8,342	21.31	19.85
Grand Fir	3	787	45,462	28,053	1	291	307	9.35	5.96
Western Hemlock	5	628	36,301	21,070	2	256	290	5.86	4.11
Bishop Pine	46	6,996	404,389	60,824	39	5,923	6,670	14.70	14.24
Cypress	10	450	25,990	6,093	8	342	563	5.64	5.20
Hardwoods	6	468	27,038	0	6	465	528	5.06	5.12
Tanoak	1	24	1,398	0	1	21	24	2.36	2.33
Chinquapin	5	444	25,639	0	5	444	504	8.64	8.64
Totals	314	50,962	2,945,629	694,693	229	38,695	42,276	11.08	11.05

***Little River Airport NTMP
Timber Inventory as of January 1, 2014***

Per Acre Stand Statistics

<i>Stand</i>	<i>A</i>	<i>Acres</i>	<i>5.6</i>	<i>Number of Plots</i>	<i>5</i>
<i>Volume Units: Conifers in Board Feet to 6" Top; Hardwoods in Cubic Feet to 4" Top</i>					
<i>Species</i>	<i>Trees per Acre</i>	<i>QMD</i>	<i>BA</i>	<i>Gross Vol</i>	<i>Net Vol</i>
Conifers	739.48	8.32	278.88	25,140	24,154
Redwood	138.18	6.67	33.50	2,561	2,561
Douglas-fir	20.00	3.00	0.98	0	0
Dishop Pine	219.14	13.20	208.24	21,838	20,853
Cypress	302.15	4.28	30.10	740	740
Hardwoods	40.00	1.57	0.54	0	0
Chinquapin	40.00	1.67	0.64	0	0

Basis: December 2013 Timber Inventory

Compiled in FORSEE

Environmental Resources Solutions, Inc.

Page 1

***Little River Airport NTMP
Timber Inventory as of January 1, 2014***

Per Acre Stand Statistics

Stand B Acres: 46.5 Number of Plots: 24

*Volume Units: Conifers in Board Feet to 6" Top;
Hardwoods in Cubic Feet to 4" Top*

<i>Species</i>	<i>Trees per Acre</i>	<i>QMD</i>	<i>BA</i>	<i>Gross Vol</i>	<i>Net Vol</i>
Conifers	405.13	11.10	272.30	48,016	47,278
Late Seral Redwood	2.13	52.20	31.67	8,366	8,366
Redwood	299.07	9.48	146.55	20,034	19,994
Douglas-fir	17.59	23.39	52.48	12,719	12,022
Western Hemlock	23.03	6.82	5.84	758	758
Grand Fir	4.64	11.51	3.35	968	968
Bishop Pine	23.47	13.99	25.07	4,759	4,758
Cypress	35.19	6.18	7.34	414	414
Hardwoods	47.28	4.99	6.41	537	537
Tanoak	37.50	1.70	0.59	0	0
Chinquapin	9.76	10.45	5.82	537	537

Basis: December 2013 Timber Inventory

Compiled in FORSEE

Environmental Resource Solutions, Inc.

Page 2

Per Acre Stand Statistics

Number of Plots: 4

Net
Vol

<i>Species</i>	<i>Acre</i>	<i>QMD</i>	<i>BA</i>	<i>Grass Vol</i>	<i>Net Vol</i>
Conifers	396.21	16.36	578.08	86,810	86,810
Redwood	380.72	15.91	498.08	72,209	72,209
Douglas-fir	12.82	20.71	30.00	5,601	5,601
Bishop Pine	22.66	20.11	50.00	9,000	9,000
Hardwoods	25.00	8.00	8.73	242	242
Tanoak	25.00	8.00	8.73	242	242

Page 3

COAST AREA OFFICE
RESOURCE MANAGEMENT

SEP 05 2014

RECEIVED

***Little River Airport NTMP
Timber Inventory as of January 1, 2014***

Per-Acre Stand and Stock Table - All Stands

			3 Units	57.8 Acres
<i>Species: Conifers</i>			16 foot logs to a 6 inch top i.b.	
			Thousands of Board Feet Scribner Log Scale	
<i>DBH Subset</i>	<i>Number of Trees</i>	<i>Sq. Ft. Basal Area</i>	<i>Net</i>	<i>Gross</i>
0 - 2	171.11	0.93	0.00	0.00
2 - 4	62.96	1.81	0.00	0.00
4 - 6	50.60	5.26	0.00	0.00
6 - 8	24.51	5.09	0.00	0.00
8 - 10	10.08	3.96	0.18	0.18
10 - 12	25.63	15.09	0.74	0.78
12 - 14	19.20	16.29	1.10	1.13
14 - 16	11.29	12.62	1.07	1.08
16 - 18	10.30	15.16	1.57	1.58
18 - 20	8.68	16.58	1.72	1.72
20 - 22	8.61	19.74	2.70	2.70
22 - 24	4.03	11.07	1.65	1.65
24 - 26	4.85	15.87	2.18	2.18
26 - 28	3.45	13.47	2.16	2.19
28 - 30	4.89	21.87	4.28	4.28
30 - 32	3.77	19.36	3.92	3.92
32 - 34	3.10	17.92	3.49	3.79
34 - 36	2.21	14.39	3.09	3.29
36 - 38	1.61	11.71	2.89	2.89
38 - 40	1.72	14.04	3.19	3.24
40 - 42	1.14	10.37	2.65	2.67
42 - 44	0.75	7.34	1.89	1.89
44 - 46	0.58	6.35	1.45	1.45
46 - 48	0.22	2.68	0.63	0.63
48 - 50				
50 - 52	0.19	2.68	0.67	0.67
52 - 54	0.36	5.36	1.23	1.23
54 - 56	0.24	4.02	1.13	1.13
56 - 58	0.15	2.68	0.83	0.83
58 - 60	0.07	1.34	0.36	0.36
60+	0.34	8.04	2.16	2.16
Total	436.64	303.09	48.94	49.63

Basis: December 2013 Timber Inventory

Compiled in FORSEE

Environmental Resource Solutions, Inc.

Page 1

RECEIVED

SEP 05 2014

**COAST AREA OFFICE
RESOURCE MANAGEMENT**

Page 19. Delete Protection of Timber Resources section.

Explanation: This section is repeated on page 19a.

Justification: See above.

Page 19.a. Insert the following tables: “NTMP Harvest Limitations by Diameter Class and Trees Marked,” Comparison of Stocking Levels of Trees in Commercial Size Classes: Pre-harvest and Post Harvest,” and “Pre- and Post-harvest Species Stocking for Stands A-C.

Explanation: The first table provides information comparing the constraints in the NTMP on harvesting by diameter class per the Southern Subdistrict Rules with the actual marking and trees to be harvested. The second and third tables provide additional comparative information on pre- and post-harvest stocking.

Justification: This information demonstrates that the marking and proposed harvest in 2014 conforms to, and in fact exceeds, the requirements of the Southern Subdistrict Rules

Page 19a. Under Protection of Timber Resources, 3rd paragraph: Delete first and second sentences: “Most of the present old growth shall be retained. Occasional old growth trees that will be cut have little wildlife or aesthetic value, impact the growth of younger coniferous trees, and most likely will contain no merchantable wood for the next entry.”

Page 21. Under Timber Management: Delete the last sentence of the third paragraph: “Old growth trees that have little wildlife or aesthetic value, impact the growth of younger coniferous trees, and most likely will contain no merchantable wood for the next entry, may be cut.”

Explanation: The deletions on pages 19a and 21 clarify the intent of the County to permanently retain residual old growth trees on the property.

Justification: The public, California Department of Fish and Wildlife, and the County of Mendocino are in agreement that Wildlife Trees, including residual old growth trees, are important elements of the Little River Airport forest and should be retained.

RECEIVED

SEP 05 2014

**COAST AREA OFFICE
RESOURCE MANAGEMENT**

NTMP Harvest Limitations by Diameter Class and Trees Marked As of July 16, 2014

<i>NTMP Diameter Categories</i>	<i>Estimated Total Number of Trees</i>	<i>Required Percentage of Trees to be Retained</i>	<i>Number of Trees Required to be Retained</i>	<i>No. Trees Marked by DBH Category</i>	<i>Number of Trees Retained</i>	<i>Percentage of Trees To Be Retained (Unmarked) of Total Number of Trees</i>
12"-18"	2358	50%	1179	405	1953	83%
All trees >18"	2945	40%	1178	683	2262	77%
All trees >24"	1713	40%	685	398	1315	77%
All trees >30"	951	30%	285	158	793	83%

Notes:

1. The total of trees actually marked to date is 1,088 and not the sum of the 4th column, since "All trees" includes everything above the identified diameter classification.. For instance, all trees greater than 18" includes all the succeeding diameter classifications.
2. The total number of trees marked for harvest is approximately 20% of the total number of trees 12"+ DBH.
3. An additional 50,000 board feet of conifer will be marked within the required diameter limitations.

Comparison of Stocking of Trees in Commercial Sizes: Pre-harvest and Post-harvest in 2014

Pre-harvest Stocking - Trees 12"+ DBH					Trees Marked as of 7/16/14		Post-harvest Stocking – All Trees	
<i>DBH</i>	<i>Acres</i>	<i>Stems/ac</i>	<i>All Trees</i>	<i>% of All Trees</i>	<i>Total Trees</i>	<i>% of All Trees</i>	<i>Total Trees Remaining</i>	<i>% of Total Trees</i>
12-16"	57.8	48.40	2797.52	46.32%	275	9.8%	2522.52	50.92%
18-24"	57.8	28.90	1670.42	27.66%	413	24.7%	1257.42	25.38%
26-34"	57.8	18.7	1080.86	17.89%	294	27.2%	786.86	15.88%
36"+	57.8	8.5	<u>491.3</u>	<u>8.13%</u>	104	21.2%	<u>387.3</u>	<u>7.82%</u>
	-	-	6040.1	100.00%	1088	-	4954.1	100.00%

Pre- and Post-harvest Species Stocking for Stands A, B and C

Stand	Year	Species/Group	Pre Harvest				Post Harvest			
			QMD	Trees per Acre	Basal Area per Acre	Gross Volume per acre	QMD	Trees per Acre	Basal Area per Acre	Gross Volume per acre
A	2014	Conifers	8.5	732	288	25,938	8.1	658	234	20,267
A	2014	Redwood	6.8	137	35	2,648	5.8	124	23	1,538
A	2014	Douglas-fir	3.5	20	1	0	3.5	14	1	0
A	2014	Cypress	4.6	358	41	830	4.3	328	33	617
A	2014	Bishop Pine	13.3	218	211	22,459	13.0	193	177	18,112
A	2014	Hardwoods	1.7	40	1	0	1.7	40	1	0
A	2014	Chinquapin	1.7	40	1	0	1.7	40	1	0
B	2014	Conifers	11.3	399	277	48,784	11.4	280	200	37,166
B	2014	Late Seral Redwood	52.2	2	32	8,366	52.2	2	32	8,366
B	2014	Redwood	9.6	295	149	20,461	9.9	186	100	14,384
B	2014	Douglas-fir	23.5	18	53	12,881	21.9	14	36	9,195
B	2014	Grand Fir	11.6	5	3	978	7.4	4	1	362
B	2014	Western Hemlock	7.3	21	6	781	5.1	19	3	318
B	2014	Bishop Pine	14.2	23	25	4,859	13.6	21	21	4,191
B	2014	Cypress	6.5	35	8	459	5.9	33	6	351
B	2014	Hardwoods	5.1	47	7	551	5.2	45	7	551
B	2014	Tanoak	2.0	37	1	0	1.9	35	1	0
B	2014	Chinquapin	10.5	10	6	551	10.5	10	6	551
C	2014	Conifers	16.5	395	583	88,574	16.8	258	399	64,561
C	2014	Redwood	16.0	359	503	73,557	16.3	230	335	52,479
C	2014	Douglas-fir	20.9	13	30	5,775	19.3	10	21	4,007
C	2014	Bishop Pine	20.2	23	50	9,242	21.0	18	42	8,075
C	2014	Tanoak	8.0	25	9	245	8.0	22	8	216
C	2014	Hardwoods	8.0	25	9	245	8.0	22	8	216

Page 24. Insert the following information on Marbled Murrelet Surveys:

According to the California Fish and Wildlife Department (CDFW), as of the date of this Request for Deviation, there are no marbled murrelet (MAMU) occurrences within the Cumulative Impacts Assessment Area. However, CDFW notes that there are known occurrences 0.5 to 1.0 miles off-shore of Van Damme. Russian Gulch is designated Critical Habitat and has at least presence.

Since the CDFW identified potential MAMU habitat in the NTMP area, it was determined that surveys for MAMUs were warranted.

After consultation with CDFW, four MAMU surveys were conducted by certified wildlife biologists

RECEIVED

SEP 05 2014

COAST AREA OFFICE

in 2013 and six surveys in 2014. Two meetings to discuss the MAMU survey protocol were held with CDFW: on July 10, 2013 and an on-site meeting on January 7, 2014. No detections were made.

On August 22, 2014, the CDFW determined “probable absence for MAMU in the identified potential habitat. Activities associated to the NTMP are not like to “take” or adversely affect current MAMU individuals or populations.” (See Section VII for a copy of the CDFW email “Marbled Murrelet Post-Survey Re-consultation.”)

A MAMU Survey Station Map and the 2013 and 2014 Report Forms shall be submitted with the next Notice of Timber Operations.

Pages 24 & 25. Insert the following information on northern spotted owl surveys:

Six surveys in 2013 and 2014 for northern spotted owls were conducted. The survey stations and protocols were developed in consultation with Wildlife Biologist Bill McIver of the U.S. Fish and Wildlife Service and consulting Wildlife Biologist Pam Town. No detections were made. A Request for Technical Assistance from the U.S. Fish and Wildlife Service was provided to CAL FIRE on August 6, 2014 indicating that proposed timber harvest operations “are not likely to result in take of a northern spotted owl, provided operations are complete prior to February 1, 2017.” (See Section VII for a copy of the Letter of Technical Assistance.)

A map of the NSO survey stations and the survey reports shall be submitted with the next Notice of Timber Operations.

Explanation: Two years of northern spotted owl surveys are required under the current protocols prior to commencing timber operations. An updated Letter of Technical Assistance was required from the one obtained from the USFWS prior to the 1996 harvest.

Justification: See above.

Page 25. Under Protection of Wildlife and Habitat Resources. Insert after the following sentence:

1. “Wildlife Trees” and snags shall be marked by the RPF and his designee and remain uncut. “

Wildlife trees are defined as trees containing a mix of the following characteristics:

- Large diameters: 48” or greater for redwood; 36” or greater for other conifer; 24” or greater for hardwoods;
- Large lateral limbs, in excess of 8” in diameter
- High presence of lichens or moss
- Deeply fissured or flattened bark
- Broken or reiterated tops
- Cat faces or fire basal cavities
- Platforms

RECEIVED

SEP 05 2014

**COAST AREA OFFICE
RESOURCE MANAGEMENT**

Wildlife trees include residual old growth trees that were identified in 2013 and 2014 by the RPF, his designee, and the assistance of consulting wildlife biologists. Wildlife trees also include the

large-diameter trees to be retained along Class II watercourses, per item 10 on page 16b. Based on the RPF's tally in 2013 and 2014, it is estimated that 198 Wildlife Trees will have been marked for permanent retention prior to the commencement of the next timber operations. Retained Wildlife Trees represent approximately 20% of the current total conifer volume. Wildlife trees shall be marked with an orange "W" on each side of the tree or with small, yellow plastic signs.

Explanation: The description of "Wildlife Trees" noted in the 1997 NTMP is further defined, per a request made by the California Department of Fish and Wildlife.

Justification: Both the California Department of Fish and Wildlife and members of the public requested that further definition be provided on the selection of trees to be retained.

Pages 31-33

Insert the following information to replace the Harvest Schedule developed for the 1996 NTMP.

Ingrowth in FORSEE modeling:

The FORSEE growth model included a sprouting simulation. At the conclusion of each harvest entry, a stump sprout routine was modeled to take effect and add trees 1" DBH and 7 feet tall at the end of the first 5 year period. The sprout routine modeled 70% of normal sprouting to account for reduced sunlight and growing space due to the light harvest intensity. The number of sprouts per stump ranged from 0 to 6 based on diameter, with the 0-2" class stumps sprouting 0; the 2-8" stumps sprouting 1; the 8-18" stumps sprouting 2; the 18-30" stumps sprouting 3; the 30-50" stumps sprouting 4; the 50-60" stumps sprouting 5; and the 60"+ stumps sprouting 6 trees. The following table summarizes the ingrowth added to each stand in the FORSEE growth model.

Year	Stand	Number of Sprouts
2014	A	19
2014	B	76
2014	C	196
2014	Total	291
2029	A	47
2029	B	84
2029	C	161
2029	Total	292
2044	A	34
2044	B	63
2044	C	159
2044	Total	256

RECEIVED

SEP 05 2014

COAST AREA OFFICE
RESOURCE MANAGEMENT

LITTLE RIVER AIRPORT REVISED TIMBER HARVEST SCHEDULE						
Year	Volume Equation Gross vol preharvest	Volume Equation Gross vol Harvest*	Volume Equation Post Harvest	Volume Equation Growth % per year	Volume Equation Growth % per period	Comment
1996	3,131,000	772,540	2,358,460			
2014	2,918,591	694,693	2,223,898	1.40%		
					23.75%	17 year period
2019	2,413,022		2,413,022	1.78%		
2024	2,645,315		2,645,315	1.84%		
2029	2,920,514	651,111	2,269,403		31.31%	15 year period
2034	2,491,543		2,491,543	1.96%		
2039	2,738,679		2,738,679	1.98%		
2044	2,998,413	649,191	2,349,222		32.12%	15 year period
2049	2,578,801		2,578,801	1.95%		
* 1996 harvested volume Net of 722,000 adjusted to Gross by 7%						

RECEIVED
 SEP 05 2014
 COAST AREA OFFICE
 RESOURCE MANAGEMENT

Cutting cycle:

A cutting cycle of 15 years was used for modeling purposes. The original NTMP called for harvesting every 10-12 years, but it has been 18 years since the last harvest. Should a harvest occur on less than a 15-year cutting cycle, a new inventory will be conducted to determine allowable harvest levels.

Overall decrease in growth rates:

It is unclear how the 2.9% growth rate projection was derived in 1997, although it seems like a reasonable figure for redwood-Douglas-fir stands. Factors that likely contribute to the lower growth rate include:

- 1) Age of the larger trees (other than old growth) which are approximately 120-130 years old*
- 2) Dense canopy levels and high levels of stocking*
- 3) Considerable mortality in the grand-fir and decline in the Douglas-fir due to age*
- 4) Noticeable levels of windthrow of fir and hemlock in the southwestern portion of the forest*
- 5) Site in combination with location. As indicated previously, the predominant site is Class III. In addition, the NTMP area is 1.15 miles west of the Pacific Ocean. Growth may be been impacted by salt in windborne moisture.*

Explanation: These tables and additional information are the basis for the revised harvesting schedule, which was based on the 2013 cruise.

Justification: Although the NTMP required a re-cruise in 2016, no harvest has occurred since 1996, and it was deemed important to obtain current information on tree species distribution, volumes, and growth in order to ensure that proposed management and harvest levels were

The revised harvest schedule has been adjusted based on the new cruise data and modeling. The planned 2014 harvest level was *decreased* in order to harvest only the growth that has occurred since the 1996 harvest.

It should be noted that the proposed 2014 harvest of 694,693 board is less than the amount harvested in 1996 and represents 23.8% of the current standing volume. Approximately 12,300 board feet/acre will be harvested, which is at the lower range of the 12,000-16,000 board feet/acre planned for each harvest entry in the NTMP. Pre-harvest volume will be reduced from approximately 50,495 board feet/acre per acre to 38,230 board feet/acre.

Page 33.

Under “Marking and Growing Guidelines”, third paragraph: delete the second paragraph on “Present stocking level occupancy” and the second to the last sentence

RECEIVED**SEP 05 2014****COAST AREA OFFICE
RESOURCE MANAGEMENT**

in the third paragraph: "The present percent distribution of the larger size class sizes should remain constant throughout the life of the NTMP."

Substitute the following language: *As provided on page 19a, Protection of Timber Resources, section 913.8 of the Forest Practice Rules for the Southern Subdistrict will be followed, ensuring that large diameter trees will always be retained in the Little River Airport forest. Future inventories shall evaluate the diameter class distribution to ensure the retention of large-diameter trees, per section 913.8, recognizing that climate change, catastrophic events, disease, and infestation may have an impact on diameter class distribution that is unassociated with forest management.*

Explanation: Rather than have a fixed distribution of size classes, this revision allows for variance of percentages of size classes, but within the requirements of 913.8.

Justification:

The new tables to be inserted on page 19a demonstrate that the stated goal of the NTMP to retain large-diameter trees is being met. The proposed harvest far exceeds the guidelines of the Southern Subdistrict rules, with the majority of the trees in the larger diameter classes being retained. For example, of the estimated 491 trees in the 36"+ DBH class, approximately 104 (21% of the total) will be harvested.

Constraining the diameter distribution to a "constant" percentage is infeasible for the following reasons:

- 1) Regeneration (0-10" DBH) now represents about 76% of the total number of trees versus 30% measured in 1997. (Refer to Per Acre Stand and Stocking Table.) This percentage results mathematically in reducing the number of 36"+ DBH trees to 2% of the total number of trees. Yet the current low growth rate of 1.4% indicates that a conservative harvest of these trees is warranted to increase growth closer to the 2% rate identified as a goal in the NTMP.
- 2) Not harvesting any trees in the upper diameter class will significantly impact the County's stated goal in the NTMP of sustained production of high-quality forest products.
- 3) Factors unrelated to forest management have already affected the distribution of larger-diameter trees, particularly the larger-sized grand-fir, northern bishop pine, and cypress, which have high levels of mortality. It is likely that this trend will continue, and prudent forest management suggests harvesting some of the larger-diameter classes before the trees die or degrade to the point of having no value.

In addition, it is the management goal for the forest at the Little River Airport to manage for large-diameter conifer (28"-36" DBH), as these trees will provide the most value for the County.

RECEIVED

SEP 05 2014

COAST AREA OFFICE
RESOURCE MANAGEMENT

Further, the NTMP ensures that Wildlife Trees will be permanently retained. Approximately 198 Wildlife Trees -- the majority of which are in the larger-diameter class -- will be marked for this purpose. While the number of Wildlife Trees relative to the total number of trees is small, they represent approximately 20% of the total volume and 11% of the total basal area.

Lastly, the percentages by DBH class in the 1997 NTMP add up only to 90%, making it impossible to determine what the total distribution was at the time.

RECEIVED

SEP 05 2014

**COAST AREA OFFICE
RESOURCE MANAGEMENT**

Additions to Part VII - Appendices to the NTMP

RECEIVED

SEP 05 2014

**COAST AREA OFFICE
RESOURCE MANAGEMENT**

Marbled Murrelet Post-Survey Re-consultation 11-R1-CTP-015-M...

Subject: Marbled Murrelet Post-Survey Re-consultation 11-R1-CTP-015-MAMU for Non-industrial Timber Harvest Plan 1-97NTMP-002MEN "Little River Airport"

From: "Hutchins, Adam@Wildlife" <Adam.Hutchins@wildlife.ca.gov>

Date: 8/22/2014 4:18 PM

To: "rsternberg@mcn.org" <rsternberg@mcn.org>, "Markham, Leslie@CALFIRE" <Leslie.Markham@fire.ca.gov>

CC: "Hendrix, Jon@Wildlife" <Jon.Hendrix@wildlife.ca.gov>, "Valentine, Brad@Wildlife" <Brad.Valentine@wildlife.ca.gov>

Leslie,

This email responds to a request by Roger Sternberg, Registered Professional Forester, on August 21, 2014 for a post-survey consultation with California Department of Fish and Wildlife (CDFW) for marbled murrelet (*Brachyrampus marmoratus*)(MAMU). CDFW has received and reviewed the completed 2013/2014 *Intensive Surveys* for identified potential habitat associated with the non-industrial timber management plan 1-97NTMP-002MEN Little River Airport (NTMP), performed under CDFW a re-consultation of 11- R1-CTP-015-MAMU.

This is the second Post-Survey Consultation under 11-R1-CTP-015-MAMU. CDFW determined "probable absence-not likely to adversely affect" after ten "Intensive Survey" protocol surveys occurring in 2008 and 2009. In 2013 and 2014, ten surveys occurred following the NTMP specific guidelines under re-consultation, a modification of standardized MAMU protocols. A total of four surveys performed to protocol standards on July 15, 20, 25 and 30 in 2013 resulted in zero detections. A total of six surveys performed to protocol standards on May 2 and 23; June 13 and 22; and July 06 and 15, in 2014 resulted in zero detections. This survey effort included six surveys after June 30th and before August 5th across both years to bolster detection probability and offset protocol deviation. CDFW determines these surveys where appropriately conducted; and concludes "probable absence" for MAMU in the identified potential habitat. Activities associated to the NTMP are not likely to "take" or adversely affect current MAMU individuals or populations. This determination shall remain valid through 5 years, expiring before the breeding season in 2020. CDFW re-consultation would be necessary for NTMP operations occurring on or after March 24, 2020. Thank you,

Adam Hutchins
Environmental Scientist
California Department of Fish and Wildlife
Timberland Conservation Planning
Northern Region

32330 North Harbor Drive
Fort Bragg, CA 95437

707-964-1980 - Fort Bragg Office
707-734-1487 - Fax

RECEIVED

SEP 05 2014

COAST AREA OFFICE
RESOURCE MANAGEMENT



In Reply Refer To:
AFWO-14B0064-14TA0157

United States Department of the Interior

FISH AND WILDLIFE SERVICE

Arcata Fish and Wildlife Office
1655 Heindon Road
Arcata, California 95521
Phone: (707) 822-7201 FAX: (707) 822-8411



AUG 06 2014

Ms. Leslie Markham
Deputy Chief, Forest Practice
California Department of Forestry and Fire Protection
135 Ridgeway Avenue
Santa Rosa, California 95402

Subject: Response to Request for Technical Assistance for the Little River Airport Non-industrial Timber Management Plan (1-97NTMP-002 MEN), Mendocino County, California

Dear Ms. Markham:

This responds to your request for Fish and Wildlife Service (Service) technical assistance, received in our office on July 24, 2014, on the above proposed Non-industrial Timber Management Plan (NTMP). The Service's responsibilities include administering the Endangered Species Act of 1973, as amended (Act). According to Section 3(19) of the Act, "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. Incidental take is defined as take that is incidental to, but not the purpose of, carrying out an otherwise lawful activity. At issue in your request is the potential for incidental take of the federally listed northern spotted owl (*Strix occidentalis caurina*) as a result of the implementation of your NTMP. After review of the information pertaining to this request, the Service provides the following technical assistance.

The Little River Airport NTMP (1-97NTMP-002 MEN) encompasses 57 acres and is located in Section 9, Township 16 North, Range 17 West, M.D.B. & M., in Mendocino County, California. The NTMP area occurs within the California Department of Forestry and Fire Protection's Coast Forest District. There is one northern spotted owl territory (MEN0460) with an activity center located within 0.7 mile of the NTMP area; specifically, MEN0460 is located approximately 0.55 mile west of the western boundary of the NTMP area. In 2013 and 2014, surveys for northern spotted owls were conducted at the NTMP area by Registered Professional Forester Roger Sternberg, and on lands adjacent to the NTMP area by biologists with the Mendocino Redwood Company, an adjacent landowner. Northern spotted owls were not detected in the NTMP area in 2013 or 2014; however, a nesting pair of northern spotted owls was found at MEN0460 in 2014.

In 2014, timber harvest (selection) operations are proposed to occur in the NTMP area. Forested areas in the NTMP area have been categorized as nesting/roosting habitat, and would retain, post-harvest, the following characteristics: greater than 60 percent cover of trees that are greater to or equal to 11 inches DBH, and have a basal area of greater than or equal to 100 square feet

RECEIVED

SEP 05 2014

COAST AREA OFFICE
RESOURCE MANAGEMENT

Ms. Leslie Markham (AFWO-14B0064-14TA0157)

2

per acre of trees greater or equal to 11 inches DBH. In other words, the proposed harvest would retain northern spotted owl nesting/roosting and foraging habitats according to standards for tree size and canopy closure, as outlined in the Service's *2011 Revision of the Northern Spotted Owl Take Avoidance and Guidance for California Coast Forest District* ("Attachment A"), dated March 15, 2011.

For the Little River Airport NTMP, should the timber harvest activities proposed for 2014 not occur until 2015 or 2016, the Service recommends implementation of the following measures to avoid take of a northern spotted owl:

- Habitat in association with northern spotted owl activity centers will be retained, roads will be used, and timber harvest operations (including no February extensions in each year) will be conducted as outlined in "Attachment A."
- Per the Service's 2012 northern spotted owl survey protocol, surveys will be conducted prior to commencement of timber operations in 2015 and 2016, and results (i.e., paper copies of the original survey forms and mapped survey routes) from these surveys will be sent to the Service as soon as practicable, upon completion of the surveys in each year.
- If the proposed timber harvesting activities change in any manner that may impact a northern spotted owl, or if future surveys reveal that a northern spotted owl has established an activity center not evaluated in this technical assistance letter, then the Registered Professional Forester (RPF) associated with the NTMP will contact the Service to evaluate and determine appropriate take avoidance measures through additional technical assistance.
- The aforementioned proposed operations will not occur after January 31, 2017, until the RPF or landowner seeks northern spotted owl technical assistance for this NTMP from the Service, to re-evaluate northern spotted owl take avoidance measures.

We have determined that operations conducted as proposed for the Little River Airport NTMP are not likely to result in take of a northern spotted owl, provided operations are complete prior to February 1, 2017. We base this determination on: our recommended avoidance measures (described above); the distance (greater than 0.25 mile) of the proposed timber harvesting activities from any active northern spotted owl activity center; and the proposed harvest methods, which will not change northern spotted owl nesting/roosting habitats, as defined in "Attachment A."

The Service's 2012 Northern Spotted Owl Survey Protocol was designed to be implemented across the entire geographic range of the northern spotted owl. However, under some circumstances, site-specific habitat conditions and past northern spotted owl survey information may justify deviations from the current survey protocol, through coordination between foresters/forestry consultants and the Service. Thus, technical assistance recommendations from the Service may differ slightly from recommendations contained in the recent survey guidance.

RECEIVED

SEP 05 2014

**COAST AREA OFFICE
RESOURCE MANAGEMENT**

Ms. Leslie Markham (AFWO-14B0064-14TA0157)

3

All maps and data used to provide this technical assistance are on file at this office. If you have questions regarding this response, please contact fish and wildlife biologist Bill McIver at (707) 822-7201.

Sincerely,



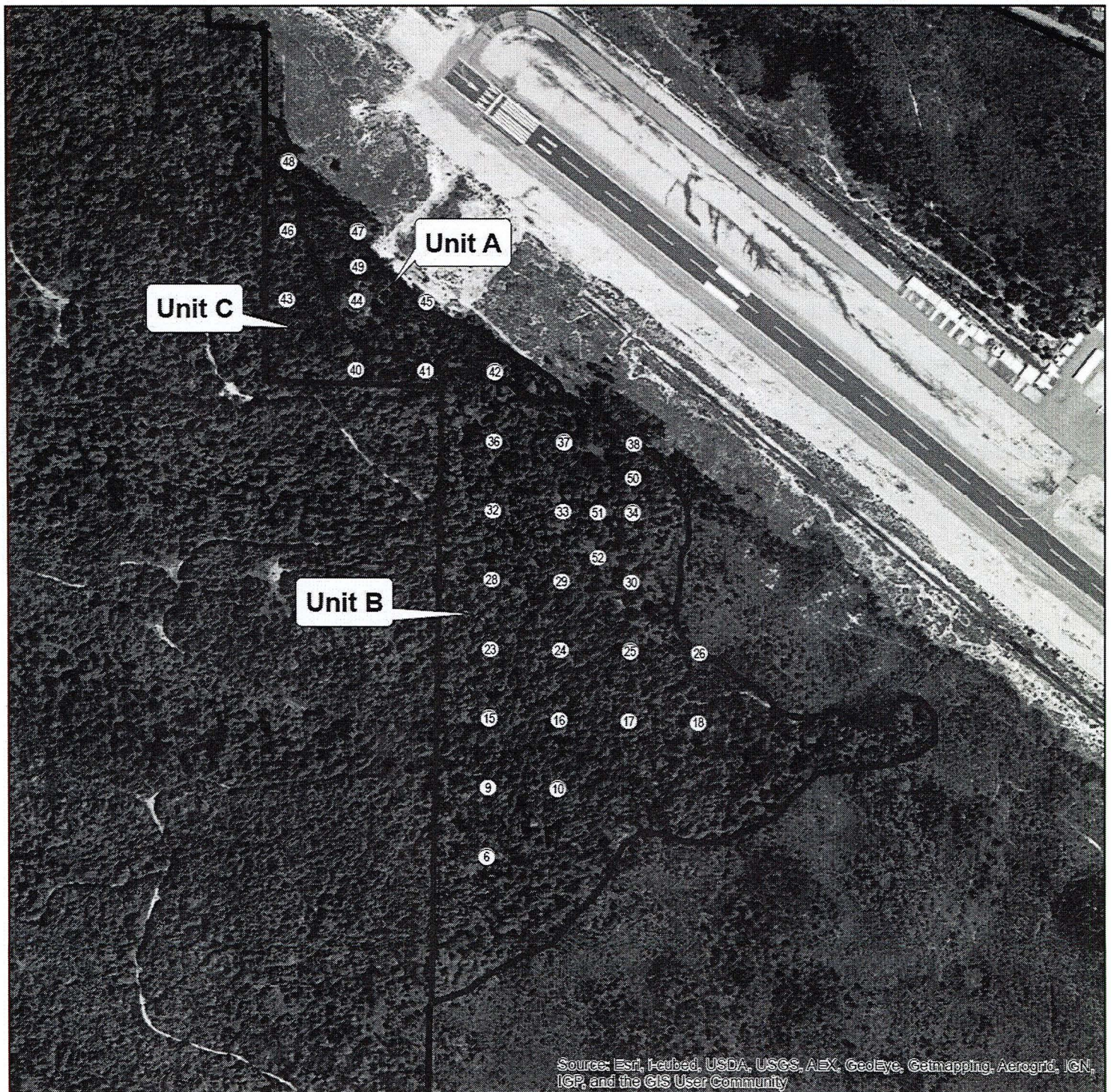
Bruce Bingham
Field Supervisor

cc: Roger Sternberg Forestry & Land Conservation Consulting Services, Mendocino, CA (Attn: Roger Sternberg)

RECEIVED

SEP 05 2014

**COAST AREA OFFICE
RESOURCE MANAGEMENT**



Little River Airport NTMP Inventory Plots January 2014

RECEIVED

SEP 05 2014

COAST AREA OFFICE

Legend

- Inventory Plots
- NTMP Units
- Property Boundary

1:6,000

1 inch = 500 feet