Board of Forestry and Fire Protection

“Stocking and Silvicultural Standards Amendments, 2019”

Title 14 California Code of Regulations

Division 1.5, Chapter 4

Subchapters 4, 5, 6 Articles 2, 3, 6

Subchapter 7 Article 5, 6

Amend:

§912.7, 932.7, 952.7 Resource Conservation Standards for Minimum Stocking

§913.2, 933.2, 953.2 Regeneration Methods Used in Unevenaged Management

§ 913.3, 933.3, 953.3 Intermediate Treatments

§913.4, 933.4, 953.4 Special Prescriptions

§916.9, 936.9, 956.9 Protection and Restoration of the Beneficial Functions of the Riparian Zone in Watersheds with Listed Anadromous Salmonids.

§1080.1 Stocking Requirements for Substantially Damaged Timberlands

Adopt:

§912.7(e), 932.7(e), 952.7(e)

912.7, 932.7, 952.7 Resource Conservation Standards for Minimum Stocking [All Districts, note (b)(1)(D)]

The following resource conservation standards constitute minimum acceptable stocking in the Coast [Northern, Southern] Forest District after timber operations have been completed.
(a) Rock outcroppings, meadows, wet areas, or other areas not normally bearing commercial species shall not be considered as requiring stocking and are exempt from such provisions.

(b) An area on which timber operations have taken place shall be classified as acceptably stocked if either of the standards set forth in (1) or (2) below are met within five (5) years after completion of timber operations unless otherwise specified in the rules.

(1) An area contains an average point count of 300 per acre on Site I, II and III lands or 150 on site IV and V lands to be computed as follows:

(A) Each countable tree [Ref. PRC § 4528(b)] which is not more than 4 inches d.b.h. counts 1 point.
(B) Each countable tree over 4 inches and not more than 12 inches d.b.h. counts 3 points.
(C) Each countable tree over 12 inches d.b.h. counts as 6 points.
(D) [Coast] Root crown sprouts will be counted using the average stump diameter 12 inches above average ground level of the original stump from which the sprouts originate, counting one sprout for each foot of stump diameter to a maximum of 6 per stump.

(1)[Coast] An area contains an average point count of two hundred (200) per acre on Site I and II lands, one hundred twenty-five (125) on Site III lands, or one hundred (100) on site IV and V lands. The point count to be computed as follows:

(A) Each countable tree [Ref. PRC § 4528(b)] which is not more than four (4) inches d.b.h. counts one (1) point.
(B) Each countable tree over four (4) inches and not more than twelve (12) inches d.b.h. counts two (2) points.

(C) Each countable tree over twelve (12) inches d.b.h. counts as four (4) points.

(D) Root crown sprouts will be counted using the average stump diameter twelve (12) inches above average ground level of the original stump from which the sprouts originate, counting one sprout for each foot of stump diameter to a maximum of six (6) per stump.

(1) [Northern, Southern] An area contains an average point count of one hundred twenty-five (125) per acre on Site I, II and III lands or one hundred (100) on site IV and V lands to be computed as follows:

(A) Each countable tree [Ref. PRC § 4528(b)] which is not more than four (4) inches d.b.h. counts one (1) point.

(B) Each countable tree over four (4) inches and not more than twelve (12) inches d.b.h. counts two (2) points.

(C) Each countable tree over twelve (12) inches d.b.h. counts as three (3) points.

(D) [Northern] Sprouts over one (1) foot in height will be counted, counting one sprout for each six (6) inches or part thereof of stump diameter to a maximum of four (4) per stump.

(D) [Southern] Root crown sprouts over one (1) foot in height will be counted, using the average stump diameter at one (1) foot above the average ground level of the original stump, counting one (1) sprout for each foot of stump diameter to a maximum of six (6) per stump.
(2) The average residual basal area measured in stems one (1) inch or larger in diameter, is at least eighty-five (85) square ft. per acre on Site I lands, and fifty (50) square ft. per acre on lands of Site II classification or lower. Site classification shall be determined by the RPF who prepared the plan.

(3) To the extent basal area standards are specified in the rules in excess of 14 CCR § 912.7(b)(2) [932.7(b)(2), 952.7(b)(2)], up to fifteen (15) square feet of basal area of those standards higher than the minimum may be met by counting snags, and decadent or deformed trees of value to wildlife in the following sizes:

(A) Thirty (30) inches or greater d.b.h. and fifty (50) feet or greater in height on Site I and II lands;

(B) Twenty-four (24) inches or greater d.b.h. and thirty (30) feet or greater in height on Site III lands; and

(C) Twenty (20) inches or greater d.b.h. and twenty (20) feet or greater in height on Site IV and V lands.

(c) The substitution provided for in 14 CCR § 912.7(b)(3) [932.7(b)(3), 952.7(b)(3)] may only be done when the potential spread of insects and diseases will not have a significantly adverse impact on long term productivity or forest health.

(d) The resource conservation standards of the rules may be met with Group A and/or B commercial species. The percentage of the stocking requirements met with Group A species shall be no less than the percentage of the stand basal area they comprised before harvesting. The site occupancy provided by Group A species shall not be reduced relative to Group B species. When considering site occupancy, the Director shall consider the potential long term effects of relative site occupancy of Group A species versus Group B species as a result of harvest. If Group A species will likely recapture the site after harvest, Group B species do not need to be reduced. The time
frames for recapturing the site shall be consistent with achieving MSP. The Director may prohibit the use of Group A and/or B commercial species which are non-indigenous or are not physiologically suited to the area involved. Exceptions may be approved by the Director if the THP provides the following information and those exceptions are agreed to by the timberland owner:

(e) An RPF may propose an alternative stocking standard for any proposed regeneration method, intermediate treatment or special prescription.

(1) The proposed alternative shall not fall below resource conservation standards for minimum stocking described above. The proposed alternative stocking shall contribute to one (1) or more of the following forest health and ecological goals:

(A) Improved fire resilience; or

(B) Increased drought tolerance; or

(C) Improved forest pest and disease resistance; or

(D) Increased carbon sequestration rates and climate benefits related to forests and durable wood products; or

(E) Appropriate stocking for resilient forests in a changing climate; or

(F) Avoidance of large-scale disturbances which promote homogeneity in forests.

(2) The RPF shall describe the management objective for the stand, state the alternative stocking standard for the proposed regeneration method, intermediate treatment or special prescription and explain and justify the proposed alternative stocking standard by providing the following information:
(A) Site specific characteristics including site class, aspect, soil type, elevation, slope, understory shrub composition, and a general discussion of available water in the soil.

(B) Economic factors supporting the proposed alternative and associated risks if the alternative stocking is not implemented.

(C) A description of the current Harvest Area, including species composition and current Stocking measured using the applicable basal area method.

(D) A discussion of the projected post-harvest species composition and Stocking using the same measure of Stocking used for the description of the current stand.

(E) A discussion of how the proposed alternative stocking will contribute to the Board’s forest health and ecological goals of 14 CCR § 912.7(e)(1)(A) through (F).

(F) A description of stand maintenance and vegetation treatments that will be applied where necessary to ensure suitable resource conservation and site occupancy post-harvest.

(3) The proposed alternative stocking area shall be inspected on site by the Director. A sample mark may be required based upon the type of harvest. The Director will verify on-site conditions and certify that the proposed alternative Stocking will contribute to one or more of the forest health and ecological goals identified in 14 CCR § 912.7 [932.7, 952.7](e)(1)(A)-(F). The Director may approve the proposed alternative if the intent of the Act and the Rules will be met, and there will not be an immediate or long-term significant harm to the natural resources of the state.
913.2, 933.2, 953.2 Regeneration Methods Used in Unevenaged Management

Unevenaged management is utilized to establish and maintain an unevenaged stand structure. Unevenaged management attributes include the establishment and/or maintenance of a multi-aged, balanced stand structure, promotion of growth on leave trees throughout a broad range of diameter classes, and encouragement of natural reproduction.

(a) Selection Under the selection regeneration method, the trees are removed individually or in small groups sized from one-quarter (0.25) acres to two and one-half (2.5) acres.

(1) Trees to be harvested or trees to be retained shall be marked by or under the supervision of the RPF prior to felling operations. When openings greater than one-quarter (0.25) acres will be created, the boundaries of the small group(s) may be designated in lieu of marking individual trees within the small group areas. A sample area must be marked prior to a preharvest inspection for evaluation. The sample area shall include at least ten (10%) percent of the harvest area up to a maximum of twenty (20) acres per stand type which is representative of the range of conditions present in the area.

(2) Post-harvest stand stocking levels shall be stated in the THP. The level of residual stocking shall be consistent with maximum sustained production of high quality timber products. In no case shall stocking be reduced below the following standards:
(A) Selection System.

1. On Site I lands at least one hundred twenty-five (125) Coast square feet per acre of basal area shall be retained.
2. On Site II and III lands at least seventy-five (75) square feet per acre of basal area shall be retained.
3. On Site IV and V lands at least fifty (50) square feet per acre of basal area shall be retained.
4. Unless the plan submitter demonstrates how the proposed harvest will achieve MSP pursuant to 14 CCR § 913.11 [933.11, 953.11] (a) or (b), the residual stand shall contain sufficient trees to meet at least the basal area, size, and phenotypic quality of tree requirement specified under the seed tree method.

(B) Group Selection.

1. At least eighty (80%) percent of the stocked plots must meet the Basal Area stocking standards of 14 CCR § 913.2(a)(2)(A), [933.2(a)(2)(A); 953.2(a)(2)(A)].
2. Not more than twenty (20%) percent of the stocked plots may meet stocking standards utilizing the 300 point count standards of 14 CCR § 912.7(b)(1) [932.7(b)(1), 952.7(b)(1)] with trees that are at least 40 (ten) (10) years old.
3. An RPF or supervised designee may offset up to eight (8) plots per forty (40) plots where those plot centers are initially placed within small group clearings created during the current harvest. Unless substantially damaged by fire, the RPF or supervised
designee shall not exclude small group clearings created by previous timber harvesting from the stocking survey.

4. Unless the plan submitter demonstrates how the proposed harvest will achieve MSP pursuant to 14 CCR § 913.11 [933.11, 953.11] (a) or (b), the residual stand shall contain sufficient trees to meet at least the basal area, size, and phenotypic quality of tree requirements specified under the seed tree method.

(3) Within any THP, small group clearings under the selection method shall be separated by a logical logging area.

(4) Following completion of Timber Operations (including site preparation) not more than twenty (20) percent of the THP area harvested by this method shall be covered by small group clearings.

(5) Exceptions to stocking standards in 14 CCR § 913.2(a)(2), [933.2(a)(2), 953.2(a)(2)] above may be granted only when proposed by the RPF and explained and justified in the plan, but in no case will the exceptions be less than specified in 14 CCR § 912.7 (b)(2), [932.7(b)(2), 952.7(b)(2)]. Exceptions may only be granted when the RPF clearly demonstrates that the existing stand will grow substantially less than both the potential site productive capacity and the proposed post-harvest stand.

Note: Authority cited: Sections 4551 and 4561, Public Resources Code. Reference: Sections 4561, 4582(h) and 4587, Public Resources Code.
913.3, 933.3, 953.3 Intermediate Treatments

(a) Commercial Thinning. Commercial thinning is the removal of trees in a young-growth stand to maintain or increase average stand Diameter of the residual crop trees, promote timber growth, and/or improve forest health. The residual stand shall consist primarily of healthy and vigorous dominant and codominant trees from the preharvest stand.

(1) Post harvest stand Stocking levels shall be stated in the THP. The level of residual Stocking shall be consistent with maximum sustained production of high quality timber products. Generally, stands will develop stand structures with considerably higher levels of basal area than provided in these minimum standards as stand age increases.

In no case shall Stocking be reduced below the following standards:

(A) Where the preharvest dominant and codominant crown canopy is occupied primarily by trees greater than fourteen (14) inches d.b.h.:

1. On Site I lands at least one hundred twenty-five (125) sq.ft. per acre of basal area shall be left.
2. On Site II and III lands at least one hundred (100) sq.ft. per acre of basal area shall be left.
3. On Site IV lands at least seventy-five (75) sq.ft. per acre of basal area shall be left.
4. On Site V lands, at least fifty (50) sq.ft. per acre of basal area shall be left.

(B) Where the preharvest dominant and codominant crown canopy is occupied primarily by trees less than fourteen (14) inches d.b.h., a minimum of one hundred (100) trees per acre over four (4) inches d.b.h. shall be retained for site I, II and III. For site IV and V the Coast District and a minimum of sixty-five (65) trees per acre over four (4) inches d.b.h. shall be retained for the Northern and Southern Districts.
(2) Exceptions to these Stocking Standards may be proposed by the RPF when explained and justified in the Plan, but in no case will the standards be below those specified in 14 CCR § 912.7(b)(2).

(3) For stands harvested in compliance with 14 CCR § 913.3(a)(1)(A), the trees to be harvested or the trees to be retained shall be marked by or under the supervision of an RPF prior to felling operations. For all thinning proposals, a sample area must be marked prior to a preharvest inspection for evaluation. The sample area shall include at least ten (10%) percent of the thinning area up to a maximum of twenty (20) acres per stand type which is representative of the range of conditions present in the area. The Director may waive the Marking requirements for the remainder of the THP area when explained and justified in the THP.

(4) Within six (6) months following completion of Timber Operations as described in the Plan a report of Stocking shall be filed as stated in PRC § 4587.

(b) Sanitation-Salvage. Sanitation is the removal of insect-attacked or Diseased Trees in order to maintain or improve the health of the stand. Salvage is the removal of only those trees which are dead, dying or deteriorating, because of damage from fire, wind, insects, disease, flood or other injurious agents. Salvage provides for the economic recovery of trees prior to a total loss of their wood product value. Sanitation and salvage may be combined into a single operation. The following requirements apply to the use of the sanitation-salvage treatment:

(1) The RPF shall estimate in the THP expected level of Stocking to be retained upon completion of Timber Operations.

(2) Immediately upon completion of Timber Operations, the area shall meet the Stocking Standards of 14 CCR § 912.7(b) unless explained and justified in the Plan. If Stocking is to be met immediately following completion of Timber Operations, a report
of Stocking shall be filed within six (6) months of completion. If this standard cannot be met, the area must be planted during the first planting season following completion of Timber Operations and the minimum Stocking Standards of 14 CCR § 912.7(b)(1) must be met within five (5) years following completion of Timber Operations.

(3) Trees to be harvested or trees to be retained shall be marked by or under the supervision of an RPF prior to felling operations. When openings greater than one-quarter (0.25) acres will be created, the boundaries of the Small Group(s) may be designated in lieu of Marking individual trees within the Small Group areas. A sample area must be marked prior to a preharvest inspection for evaluation. The sample area shall include at least ten (10%) percent of the area, up to a maximum of twenty (20) acres per stand type, whichever is less, which is representative of the range of conditions present in the area. The Director may waive the Marking requirement for the remainder of the THP area when explained and justified in the THP.

Note: Authority cited: Sections 4551 and 4561, Public Resources Code. Reference: Sections 4582(d), (h) and 4587, Public Resources Code.

913.4, 933.4, 953.4 Special Prescriptions

The following special harvesting methods are appropriate under certain conditions:

(a) Special Treatment Area Prescriptions. Special consideration in Special Treatment Areas shall be given to selection of a regeneration method or intermediate treatment compatible with the objectives for which the special area was established. Such areas shall be identified in the plan. To assure the integrity of legally designated historical and archaeological sites and legally designated ecological reserves, and that the objectives of the special treatment areas are met, the RPF and the Director may
agree, after on-the-ground inspection, if requested by either party, on specific
silvicultural and logging practices to protect such areas. The Director shall notify
affected agencies or groups with expertise in the resource involved in the special
treatment area of any such areas located during the THP review process.

(b) Rehabilitation of Understocked Area Prescription. For the purposes of restoring
and enhancing the productivity of commercial timberlands which do not meet the
stocking standards defined in 14 CCR 912.7 [932.7, 952.7] prior to any Timber
operations on such lands, an area may be harvested provided it is restocked in
accordance with Subsections (1) or (2). To facilitate restocking, a regeneration plan
must be included in the THP. The regeneration plan shall include site preparation,
method of regeneration, and other information appropriate to evaluate the plan.

(1) If the area meets the standards of 14 CCR 912.7 [932.7, 952.7] within five
years of completion of Timber operations, the area shall be considered
acceptably stocked, or shall be considered acceptably stocked if it contains at
least ten (10) planted countable trees for each tree harvested on sites I, II, and
III, and five (5) planted countable trees for each tree harvested on site IV and V.

(2) On understocked timberlands where no countable conifer trees are to be
harvested and the broadleaf species are not designated for management, the
area shall be planted to equal or exceed the stocking standards of 14 CCR
912.7(b)(1) [932.7(b)(1), 952.7(b)(1)] and shall be considered acceptably
stocked if within five years of completion of Timber operations it contains at
least an average point count of 450 100 of Group A species on all site
classifications.

c) Fuelbreak/Defensible Space. Where some trees and other vegetation and fuels
are removed to create or maintain a shaded fuel break or defensible space in an area
to reduce the potential for wildfires and the damage they might cause. Minimum
stocking standards within the timber operating area shall be met immediately after
harvest and shall be those found in 14 CCR 912.7 [932.7, 952.7]. The RPF shall
describe in the plan specific vegetation and fuels treatment, including timing, to reduce
fuels to meet the objectives of the a Community Fuelbreak Area or other objectives
identified by the RPF with the written concurrence of a public fire agency and
determined by the Director to be consistent with the purpose of the Act.

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Note: Authority cited: Sections 4551 and 4553, Public Resources Code. Reference:
Sections 4512, 4551.5, 4561, 4561.2, 4582 and 4582.5, Public Resources Code.

916.9, 936.9, 956.9 Protection and Restoration of the Beneficial Functions of the
Riparian Zone in Watersheds with Listed Anadromous Salmonids. [All Districts]
In addition to all other district Forest Practice Rules, the following requirements shall
apply in any watershed with listed anadromous salmonids. Requirements of 14 CCR
§§ 916.9, 936.9, 956.9
precede other sections of the FPRs.****

****(t) Emergency notices - No timber operations are allowed in a WLPZ, or within
any ELZ or EEZ designated for watercourse or lake protection, under emergency
notices except for:

(1) Hauling on existing roads.
(2) Road maintenance.
(3) Operations conducted for public safety.
(4) Construction or reconstruction of approved watercourse crossings.
(5) Temporary crossings of dry Class III watercourses that do not require notification under Fish and Game Code §1600 et seq.

(6) Harvesting recommended in writing by CDFW to address specifically identified forest conditions.

(7) The harvest of dead or dying conifer trees subject to the following conditions:

(A) Retention of all trees in the core zone of Class I and Class II-L watercourses.

(B) Within any WLPZ, ELZ, or EEZ designated for Class II or III watercourse protection, a minimum of two dead, dying, or diseased conifer trees per acre at least sixteen (16) inches diameter breast high and fifty (50) feet tall shall be retained within fifty (50) feet of the watercourse transition line.

(C) Trees to be harvested or retained shall be marked by, or under the supervision of, an RPF prior to timber operations within the WLPZ or ELZ/EEZ.

(D) Within the WLPZ or ELZ/EEZ, if the stocking standards of 14 CCR § 912.7 [932.7, 952.7] are not met upon completion of timber operations, unless the area meets the definition of substantially damaged timberlands, at least ten trees shall be planted for each tree harvested but need not exceed the point count standards contained in 14 CCR § 912.7 [932.7, 952.7](b)(1), as appropriate an average point count of 300 trees per acre.

Note: Authority cited: Sections 4551, 4562.7 and 21000(g), Public Resources Code.

Reference: Sections 751, 4512, 4513, 4551.5, 4750, 4750.3, 4750.4, 21000(g).
§ 1072.6. Point Count Stocking Sampling Procedure

The silvicultural Rules of each forest District and the Act contain point count Stocking Standards to be met following the completion of a Timber Operation. The following procedure shall be used to determine if these Stocking Standards have been met.

Since there are separate values for three different size classes, three circular concentric plots may be needed at each plot center. The following standards are for a 300-point count per Forest District listed below:

(1) Coast Forest District (two hundred (200) point count)

(a1) For trees counted as one point each, a plot with an 6.808.33 foot radius is used (1/300200th of an acre). If a Countable Tree of a value of at least one point is found in the plot, it is stocked, so recorded, and the Timber Owner or agent thereof moves on to the next plot center. If no Countable Tree is found, the next concentric plot is measured.

(b2) For trees counted as three two (2) points each, a plot with an 11.78 foot radius is used (1/100th of an acre). If a Countable Tree of a value of at least three points is found in the plot, it is stocked, so recorded, and the Timber Owner or the agent thereof moves on to the next plot center. If no Countable Tree is found, the next larger concentric plot is measured.

(c3) For trees counted as six four (4) points each, a plot with a 16.65 foot radius is used (1/50th of an acre). If a Countable Tree of a value of at least six (6) points is found in the plot, it is stocked. If no Countable Trees of the required sizes are found in the three (3) concentric plots, the plot center is recorded as
being unstocked and the Timber Owner or agent thereof moves on to the next plot center. For point counts of 450 one hundred twenty-five (125) per acre, the three (3) concentric circular plot radius sizes are: 5.55 - 10.53 feet (1/450 125th of an acre), 9.61 - 14.89 feet (1/450 62.5th of an acre), and 13.6 - 21.06 feet (1/75 31.25th of an acre). For point counts of 150 one hundred (100) per acre, the three (3) concentric circular plot radius sizes are: 9.61 - 11.78 feet (1/150 100th of an acre), 16.65 feet (1/50th of an acre), 23.55 feet (1/25th of an acre).

(4) The point count values of various size trees and for determining how sprouts will be counted is found in 14 CCR §§ 912.7, 932.7 and 952.7.

(b) Northern and Southern (one hundred twenty-five (125) point count)

(1) For trees counted as one (1) point each, a plot with a 10.53 foot radius is used (1/125th of an acre). If a Countable Tree of a value of at least one (1) point is found in the plot, it is stocked, so recorded, and the Timber Owner or agent thereof moves on to the next plot center. If no Countable Tree is found, the next concentric plot is measured.

(2) For trees counted as two (2) points each, a plot with a 14.89 foot radius is used (1/62.5th of an acre). If a Countable Tree of a value of at least two (2) points is found in the plot, it is stocked, so recorded, and the Timber Owner or the agent thereof moves on to the next plot center. If no Countable Tree is found, the next larger concentric plot is measured.

(3) For trees counted as three (3) points each, a plot with an 18.24 foot radius is used (1/41.67th of an acre). If a Countable Tree of a value of at least three (3) points is found in the plot, it is stocked. If no Countable Trees of the required sizes are found in the three concentric plots, the plot center is recorded as being unstocked and the Timber Owner or agent thereof moves on to the next plot.
center. For point counts of one hundred (100) per acre, the three concentric circular plot radius sizes are: 11.78 feet (1/100th of an acre), 16.65 feet (1/50th of an acre), and 20.39 feet (1/33.34th of an acre).

(4) The point count values of various size trees and for determining how sprouts will be counted is found in 14 CCR §§ 912.7, 932.7 and 952.7.


1080.1 Stocking Requirements for Substantially Damaged Timberlands

(a) The stocking standards to be maintained or established where substantial damage has occurred prior to the start of timber operations, or where such damage has occurred following the start of timber operations but before a stocking report has been submitted or approved by the Director, are:

(1) On Sites III and better, the stocking shall consist of at least ten (10) countable trees planted for each live tree harvested during conduct of salvage operations following the substantial damage, but need not exceed an average point count of those standards established within 14 CCR § 912.7, 932.7, or 952.7, as appropriate 300 per acre (741.3 per ha). The number of live trees harvested shall be determined by stump count or by an equivalent procedure proposed by the RPF and approved by the Department.

(2) Where only dead, down, or dying trees were salvage logged following the substantial damage, no restocking is required.

(3) No restocking requirements need be met on substantially damaged timberlands on Sites IV and V after timber operations.
Note: Authority cited: Sections 4551, 4553 and 4561.6, Public Resources Code.

Reference: Section 4561.6, Public Resources Code.

END