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, 7

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 200 per acre on Site I and II lands, 125 on Site III lands, or 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 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 2 points.
(C) Each countable tree over 12 inches d.b.h. counts as 4 points.

(D) 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) [Northern, Southern] An area contains an average point count of 125 per acre on Site I, II and III lands or 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 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 2 points.

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

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

(D) [Southern] Root crown sprouts over 1 foot in height will be counted, using the average stump diameter at 1 foot above the average ground level of the original stump, counting 1 sprout for each foot of stump diameter to a maximum of 6 per stump. *****

(2) The average residual basal area measured in stems 1 inch or larger in diameter, is at least 85 square ft. per acre on Site I lands, and 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
CRR § 912.7(b)(2) [932.7(b)(2), 952.7(b)(2)], up to 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) 30 inches or greater dbh and 50 feet or greater in height on site I and
   II lands;

(B) 24 inches or greater dbh and 30 feet or greater in height on site III
   lands; and

(C) 20 inches or greater dbh and 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)(2), 952.7(b)(2)] 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 achieve suitable resource conservation and contributes to one 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.

(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 (D).

(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 § 913.7 [933.7, 953.7](e)(1)(A)-(D), achieve suitable resource conservation. 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 significant and long-term significant harm to the natural resources of the state.


913.2, 933.2, 953.2 Regeneration Methods Used in Unevenaged Management [All Districts, Note variations by District in (a)(2)(A)(1)]

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 .25 acres to 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 .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 10% of the harvest area up to a maximum of
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 [125 Coast] [100 Northern & Southern]
square feet per acre of basal area shall be retained.

2. On Site II and III lands at least 75 square feet per acre of basal
area shall be retained.

3. On Site IV and V lands at least 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 80% 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 20% 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 10 (ten) years old.

3. An RPF or supervised designee may offset up to 8 plots per 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 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 14 inches dbh:
1. On Site I lands at least 125 sq.ft. per acre of basal area shall be left.
2. On Site II and III lands at least 100 sq.ft. per acre of basal area shall be left.
3. On Site IV lands at least 75 sq.ft. per acre of basal area shall be left.
4. On Site V lands, at least 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 14 inches dbh, a minimum of one hundred (100) trees per
acre over 4 inches dbh shall be retained for site I, II and III. For site IV and V the
Coast District and sixty-five (65) trees per acre over 4 inches dbh 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 10% of the thinning area up to a maximum of 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.
Within six 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 operations.

(2) Immediately upon completion of 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 operations, a report of Stocking shall be filed within 6 months of completion. If this standard cannot be met, the area must be planted during the first planting season following completion of operations and the minimum Stocking Standards of 14 CCR § 912.7(b)(1) must be met within 5 years following completion of 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 .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 10% of the area, up to a maximum of 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 (l) 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 10 planted countable trees for each tree harvested on sites I, II, and III, and 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 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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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 16 inches diameter breast high and 50 feet tall shall be retained within 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 [932, 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 an average point count of 300 200 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), 21001(b) and 21002.1, Public Resources Code; Sections 100, 1243 and 13050(f), Water Code; and Sections 1600 and 5650(c), Fish and Game Code.

§ 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 each Forest District:

(a) Coast Forest District (200 point count)

(a1) For trees counted as one point each, a plot with a 6.888.33 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 points each, a plot with a 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.

(e3) For trees counted as six-four 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 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 450125 per acre, the three concentric circular plot radius sizes are: 5.55 10.53 feet (1/450125th of an acre), 9.61 14.89 feet (1/45062.5th of an acre), and 13.621.06 feet (1/7531.25th of an acre). For point counts of 450100 per acre, the three concentric circular plot radius sizes are: 9.6111.78 feet (1/450100th 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 (125 point count)

(1) For trees counted as one 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 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 three 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 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.

(3) For trees counted as six 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 six 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 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.

Note: Authority cited: Sections 4551 and 4587, Public Resources Code. Reference:
Sections 4587 and 4561.2 Public Resources Code.

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 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, 952.7, as appropriate 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.