

HOUSE BILL NO. 1100

AMENDMENT IN THE NATURE OF A SUBSTITUTE

(Proposed by the House Committee on Counties, Cities and Towns

on \_\_\_\_\_)

(Patrons Prior to Substitute--Delegates Carr, Keys-Gamarra [HB 170], and Seibold [HB 534])

A BILL to amend and reenact § 15.2-961.1 of the Code of Virginia, relating to conservation of trees.

**Be it enacted by the General Assembly of Virginia:**

**1. That § 15.2-961.1 of the Code of Virginia is amended and reenacted as follows:**

**§ 15.2-961.1. Conservation of trees during land development process.**

A. For purposes of this section, "tree canopy" or "tree cover" includes all areas of canopy coverage by self-supporting and healthy woody plant material exceeding five feet in height, and the extent of planted tree canopy at 20-years maturity.

~~B. Any locality within Planning District 8 that meets the population density criteria of subsection A of § 15.2-961 and is classified as an eight-hour nonattainment area for ozone under the federal Clean Air Act and Amendments of 1990, in effect as of July 1, 2008, may adopt an ordinance providing for the conservation of trees during the land development process pursuant to the provisions of this section. In no event shall any local tree conservation ordinance adopted pursuant to this section also impose the tree replacement provisions of § 15.2-961.~~

C. The ordinance shall require that the site plan for any subdivision or development provide for the preservation or replacement of trees on the development site such that the minimum tree canopy or tree cover percentage 20 years after development is projected to be as follows:

- 1. Ten percent tree canopy for a site zoned business, commercial, or industrial;
- 2. Ten percent tree canopy for a residential site zoned 20 or more units per acre;
- 3. Fifteen percent tree canopy for a residential site zoned more than eight but less than 20 units per acre;

26 4. Twenty percent tree canopy for a residential site zoned more than four but not more than eight  
27 units per acre;

28 5. Twenty-five percent tree canopy for a residential site zoned more than two but not more than  
29 four units per acre; and

30 6. Thirty percent tree canopy for a residential site zoned two or fewer units per acre.

31 In meeting these percentages, (i) the ordinance shall first emphasize the preservation of existing  
32 tree canopy where that canopy meets local standards for health and structural condition, and where it is  
33 feasible to do so within the framework of design standards and densities allowed by the local zoning and  
34 other development ordinances; and (ii) second, where it is not feasible in whole or in part for any of the  
35 justifications listed in subsection E to preserve existing canopy in the required percentages listed above,  
36 the ordinance shall provide for the planting of new trees to meet the required percentages.

37 D. Except as provided in subsection E, the percentage of the site covered by tree canopy at the  
38 time of plan submission shall equate to the minimum portion of the requirements identified in subsection  
39 C that shall be provided through tree preservation. This portion of the canopy requirements shall be  
40 identified as the "tree preservation target" and shall be included in site plan calculations or narratives  
41 demonstrating how the overall requirements of subsection C have been met.

42 E. The ordinance shall provide deviations, in whole or in part, from the tree preservation target  
43 defined in subsection D under the following conditions:

44 1. Meeting the preservation target would prevent the development of uses and densities otherwise  
45 allowed by the locality's zoning or development ordinance.

46 2. The predevelopment condition of vegetation does not meet the locality's standards for health  
47 and structural condition.

48 3. Construction activities could be reasonably expected to impact existing trees to the extent that  
49 they would not likely survive in a healthy and structurally sound manner. This includes activities that  
50 would cause direct physical damage to the trees, including root systems, or cause environmental changes  
51 that could result in or predispose the trees to structural and health problems.

52 If, in the opinion of the developer, the project cannot meet the tree preservation target due to the  
53 conditions described in subdivision 1, 2, or 3, the developer may request a deviation from the preservation  
54 requirement in subsection D. In the request for deviation, the developer shall provide a letter to the locality  
55 that provides justification for the deviation, describes how the deviation is the minimum necessary to  
56 afford relief, and describes how the requirements of subsection C will be met through tree planting or a  
57 tree canopy bank or fund established by the locality. Proposed deviations shall be reviewed by the  
58 locality's urban forester, arborist, or equivalent in consultation with the locality's land development or  
59 licensed professional civil engineering review staff. The locality may propose an alternative site design  
60 based upon adopted land development practices and sound vegetation management practices that take into  
61 account the relationship between the cost of conservation and the benefits of the trees to be preserved as  
62 described in ANSI A300 (Part 5) — 2005 Management: Tree, Shrub, and Other Woody Plant Maintenance  
63 — Standard Practices, Management of Trees and Shrubs During Site Planning, Site Development, and  
64 Construction, Annex A, A-1.5, Cost Benefits Analysis (or the latest version of this standard). The  
65 developer shall consider the alternative and redesign the plan accordingly, or elect to satisfy the unmet  
66 portion of the preservation threshold through on-site tree planting or through the off-site planting  
67 mechanisms identified in subsection G, so long as the developer provides the locality with an explanation  
68 of why the alternative design recommendations were rejected. Letters of explanation from the developer  
69 shall be prepared and certified by a licensed professional engineer as defined in § 54.1-400. If  
70 arboricultural issues are part of explanation then the letter shall be signed by a Certified Arborist who has  
71 taken and passed the certification examination sponsored by the International Society of Arboriculture  
72 and who maintains a valid certification status or by a Registered Consulting Arborist as designated by the  
73 American Society of Consulting Arborists. If arboricultural issues are the sole subject of the letter of  
74 explanation then certification by a licensed professional engineer shall not be required.

75 F. The ordinance shall provide for deviations of the overall canopy requirements set forth in  
76 subsection C to allow for the preservation of wetlands, the development of farm land or other areas  
77 previously devoid of healthy and/or suitable tree canopy, or where the strict application of the  
78 requirements would result in unnecessary or unreasonable hardship to the developer.

79 G. The ordinance shall provide for the establishment of a tree canopy bank or fund whereby any  
80 portion of the tree canopy requirement that cannot be met on-site may be met through off-site tree  
81 preservation or tree planting efforts. Such provisions may be offered where it can be demonstrated that  
82 application of the requirements of subsection C would cause irresolvable conflicts with other local site  
83 development requirements, standards, or comprehensive planning goals, where sites or portions of sites  
84 lack sufficient space for future tree growth, where planting spaces will not provide adequate space for  
85 healthy root development, where trees will cause unavoidable conflicts with underground or overhead  
86 utilities, or where it can be demonstrated that trees are likely to cause damage to public infrastructure. The  
87 ordinance may utilize any of the following off-site canopy establishment mechanisms:

88 1. A tree canopy bank may be established in order for the locality to facilitate off-site tree  
89 preservation, tree planting, stream bank, and riparian restoration projects. Banking efforts shall provide  
90 tree canopy that is preserved in perpetuity through conservation easements, deed restrictions, or similar  
91 protective mechanisms acceptable to the locality. Projects used in off-site banking will meet the same  
92 ordinance standards established for on-site tree canopy; however, the locality may also require the  
93 submission of five-year management plans and funds to ensure the execution of maintenance and  
94 management obligations identified in those plans. Any such bank shall occur within the same  
95 ~~nonattainment area~~ planning district in which the locality approving the tree banking is situated.

96 2. A tree canopy fund may be established to act as a fiscal mechanism to collect, manage, and  
97 disburse fees collected from developers that cannot provide full canopy requirements on-site. The locality  
98 may use this fund directly to plant trees on public property, or the locality may elect to disburse this fund  
99 to community-based organizations exempt from taxation under § 501(c)(3) of the Internal Revenue Code  
100 with tree planting or community beautification missions for tree planting programs that benefit the  
101 community at large. For purposes of establishing consistent and predictable fees, the ordinance shall  
102 establish cost units that are based on average costs to establish 20-year canopy areas using two-inch caliper  
103 nursery stock trees. Any funds collected by localities for these purposes shall be spent within a five-year  
104 period established by the collection date, or the locality shall return such funds to the original contributor,  
105 or legal successor.

106 H. The following uses shall be exempt from the requirements of any ordinance promulgated under  
107 this section: bona fide silvicultural activity as defined by § 10.1-1181.1 and the areas of sites included in  
108 lakes, ponds, and the normal water elevation area of stormwater retention facilities. The ordinance shall  
109 modify the canopy requirements of dedicated school sites, playing fields, and other nonwooded active  
110 recreation areas by allowing these and other facilities and uses of a similar nature to provide 10 percent  
111 tree canopy 20 years after development.

112 I. 1. In recognition of the added benefits of tree preservation, the ordinance shall provide for an  
113 additional tree canopy credit of up to one and one-quarter times the canopy area at the time of plan  
114 submission for individual trees or the coalesced canopy of forested areas preserved from the  
115 predevelopment tree canopy.

116 2. The following additional credits may be provided in the ordinance in connection with tree  
117 preservation:

118 a. The ordinance may provide canopy credits of up to one and one-half times the actual canopy  
119 area for the preservation of forest communities that achieve environmental, ecological, and wildlife  
120 conservation objectives set by the locality. The ordinance may establish minimal area, dimensional and  
121 viability standards as prerequisites for the application of credits. Forest communities shall be identified  
122 using the nomenclature of either the federal National Vegetation Classification System (FGDC-STD-005,  
123 or latest version) or the Natural Communities of Virginia Classification of Ecological Community Groups,  
124 Second Approximation (Version 2.2, or latest version).

125 b. The ordinance may provide canopy credits of up to three times the actual canopy area of trees  
126 that are officially designated for preservation in conjunction with local tree conservation ordinances based  
127 on the authority granted by § 10.1-1127.1.

128 J. The following additional credits shall be provided in the ordinance in connection with tree  
129 planting:

130 1. The ordinance shall provide canopy credits of one and one-half the area normally projected for  
131 trees planted to absorb or intercept air pollutants, tree species that produce lower levels of reactive volatile

132 organic compounds, or trees that act to reduce air pollution or greenhouse gas emissions by conserving  
133 the energy used to cool and heat buildings.

134 2. The ordinance shall provide canopy credits of one and one-quarter the area normally projected  
135 for trees planted for water quality-related reforestation or afforestation projects, and for trees planted in  
136 low-impact development and bioretention water quality facilities. The low-impact development practices  
137 and designs shall conform to local standards in order for these supplemental credits to apply.

138 3. The ordinance shall provide canopy credits of one and one-half the area normally projected for  
139 native tree species planted to provide food, nesting, habitat, and migration opportunities for wildlife. These  
140 canopy credits may also apply to cultivars of native species if the locality determines that such a cultivar  
141 is capable of providing the same type and extent of wildlife benefit as the species it is derived from.

142 4. The ordinance shall provide canopy credits of one and one-half the area normally projected for  
143 use of native tree species that are propagated from seed or tissue collected within the mid-Atlantic region.

144 5. The ordinance shall provide canopy credits of one and one-quarter the area normally projected  
145 for the use of cultivars or varieties that develop desirable growth and structural patterns, resist decay  
146 organisms and the development of cavities, show high levels of resistance to disease or insect infestations,  
147 or exhibit high survival rates in harsh urban environments.

148 K. Tree preservation areas and individual trees may not receive more than one application of  
149 additional canopy credits provided in subsection I. Individual trees planted to meet these requirements  
150 may not receive more than two categories of additional canopy credits provided in subsection J. Canopy  
151 credits will only be given to trees with trunks that are fully located on the development site, or in the case  
152 of tree banking projects only to trees with trunks located fully within easements or other areas protected  
153 by deed restrictions listed in subsection G.

154 L. All trees planted for tree cover credits shall meet the specifications of the American Association  
155 of Nurserymen and shall be planted in accordance with the publication entitled "Tree and Shrub Planting  
156 Guidelines," published by the Virginia Cooperative Extension.

157 M. In order to provide higher levels of biodiversity and to minimize the spread of pests and  
158 diseases, or to limit the use of species that cause negative impacts to native plant communities, cause

159 damage to nearby structures, or possess inherent physiological traits that prone trees to structural failure,  
160 the ordinance may designate species that cannot be used to meet tree canopy requirements or designate  
161 species that will only receive partial 20-year tree canopy credits.

162 N. The locality may allow the use of tree seedlings for meeting tree canopy requirements in large  
163 open spaces, low-density residential settings, or in low-impact development reforestation/afforestation  
164 projects. In these cases, the ordinance shall allow the ground surface area of seedling planting areas to  
165 equate to a 20-year canopy credit area. Tree seedling plantings will be comprised of native species and  
166 will be planted in densities that equate to 400 seedlings per acre, or in densities specified by low-impact  
167 development designs approved by the locality. The locality may set standards for seedling mortality rates  
168 and replacement procedures if unacceptable rates of mortality occur. The locality may elect to allow native  
169 woody shrubs or native woody seed mix to substitute for tree species as long as these treatments do not  
170 exceed 33 percent of the overall seedling planting area. The number of a single species may not exceed  
171 10 percent of the overall number of trees or shrubs planted to meet the provisions of this subsection.

172 O. The following process shall be used to demonstrate achievement of the required percentage of  
173 tree canopy listed in subsection C:

174 1. The site plan shall graphically delineate the edges of predevelopment tree canopy, the proposed  
175 limits of disturbance on grading or erosion and sedimentation control plans, and the location of tree  
176 protective fencing or other tree protective devices allowed in the Virginia Erosion and Sediment Control  
177 Handbook.

178 2. Site plans proposing modification to tree canopy requirements or claiming supplemental tree  
179 canopy credits will require a text narrative.

180 3. The site plan shall include the 20-year tree canopy calculations on a worksheet provided by the  
181 locality.

182 4. Site plans requiring tree planting shall provide a planting schedule that provides botanical and  
183 common names of trees, the number of trees being planted, the total of tree canopy area given to each  
184 species, variety or cultivars planted, total of tree canopy area that will be provided by all trees, planting

185 sizes, and associated planting specifications. The site plan will also provide a landscape plan that  
186 delineates where the trees shall be planted.

187 P. The ordinance shall provide a list of commercially available tree species, varieties, and cultivars  
188 that are capable of thriving in the locality's climate and ranges of planting environments. The ordinance  
189 will also provide a 20-year tree canopy area credit for each tree. The amount of tree canopy area credited  
190 to individual tree species, varieties, and cultivars 20 years after they are planted shall be based on  
191 references published or endorsed by Virginia academic institutions such as the Virginia Polytechnic  
192 Institute and State University and accepted by urban foresters, arborists, and horticulturalists as being  
193 accurate for the growing conditions and climate of the locality.

194 Q. The ordinance shall establish standards of health and structural condition of existing trees and  
195 associated plant communities to be preserved. The ordinance may also identify standards for removal of  
196 trees or portions of trees that are dead, dying, or hazardous due to construction impacts. Such removal  
197 standards may allow for the retention of trunk snags where the locality determines that these may provide  
198 habitat or other wildlife benefits and do not represent a hazardous condition. In the event that existing tree  
199 canopy proposed to be preserved for tree canopy credits dies or must be removed because it represents a  
200 hazard, the locality may require the developer to remove the tree, or a portion of the tree and to replace  
201 the missing canopy area by the planting of nursery stock trees, or if a viable alternative, by tree seedlings.  
202 Existing trees that have been granted credits will be replaced with canopy area determined using the same  
203 supplemental credit multipliers as originally granted for that canopy area.

204 R. Penalties for violation of ordinances adopted pursuant to this section shall be the same as those  
205 applicable to violations of zoning ordinances of the locality.

206 S. In no event shall any local tree conservation ordinance adopted pursuant to this section exceed  
207 the requirements set forth herein; however, any local ordinance adopted pursuant to the provisions of §  
208 15.2-961 prior to July 1, 1990, may adopt the tree conservation provisions of this section based on 10-  
209 year minimum tree canopy requirements.

210 T. Nothing in this section shall invalidate any local ordinance adopted pursuant to § 15.2-961.



**211** U. Nothing in this section shall prohibit or unreasonably limit silvicultural practices in accordance  
**212** with § 10.1-1126.1.

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