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SENATE BILL NO. 537

AMENDMENT IN THE NATURE OF A SUBSTITUTE

(Proposed by the House Committee on/for Counties, Cities and Towns
on March 4, 2022)

(Patron Prior to Substitute—Senator Marsden)

A BILL to amend and reenact §§ 15.2-961 and 15.2-961.1 of the Code of Virginia and to amend the Code of Virginia by adding sections numbered 15.2-961.3 and 15.2-961.4, relating to powers of local government; replacement and conservation of trees during development process.

Be it enacted by the General Assembly of Virginia:

1. That §§ 15.2-961 and 15.2-961.1 of the Code of Virginia are amended and reenacted and that the Code of Virginia is amended by adding sections numbered 15.2-961.3 and 15.2-961.4 as follows:

§ 15.2-961. Replacement of trees during development process in certain localities.

A. Any locality with a population density of at least 75 persons per square mile or any locality within the Chesapeake Bay watershed may adopt an ordinance providing for the planting and replacement of trees during the development process pursuant to the provisions of this section. Population density shall be based upon the latest population estimates of the Cooper Center for Public Service of the University of Virginia.

B. The ordinance shall require that the site plan for any subdivision or development include the planting or replacement of trees on the site to the extent that, at 20 years, minimum tree canopies or covers will be provided in areas to be designated in the ordinance, 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 10 but less than 20 units per acre; and

4. Twenty percent tree canopy for a residential site zoned 10 units or less per acre.

However, the City of Williamsburg may require at 10 years the minimum tree canopies or covers set out above.

C. The ordinance shall require that the site plan for any subdivision or development include, at 20 years, that a minimum 10 percent tree canopy will be provided on the site of any cemetery as defined in § 54.1-2310, notwithstanding any other provision of this section. In no event shall any local tree replacement or planting ordinance adopted pursuant to this section exceed the requirements of this subsection.

D. The ordinance shall provide for reasonable provisions for reducing the tree canopy requirements or granting tree cover credit in consideration of the preservation of existing tree cover or for preservation of trees of outstanding age, size or physical characteristics.

E. The ordinance shall provide for reasonable exceptions to or deviations from these requirements to allow for the reasonable development of farm land or other areas devoid of healthy or suitable woody materials, for the preservation of wetlands, or otherwise when the strict application of the requirements would result in unnecessary or unreasonable hardship to the developer. In such instances, the ordinance may provide for a tree canopy bank whereby a portion of a development's tree canopy requirement may be met from off-site planting or replacement of trees at the direction of the locality. The following shall be exempt from the requirements of any tree replacement or planting ordinance promulgated under this section: dedicated school sites, playing fields and other nonwooded recreation areas, and other facilities and uses of a similar nature.

F. The ordinance may designate tree species that cannot be planted to meet minimum tree canopy requirements due to tendencies of such species to (i) negatively impact native plant communities, (ii) cause damage to nearby structures and infrastructure, or (iii) possess inherent physiological traits that cause such trees to structurally fail. All trees to be planted shall meet the specifications of the AmericanHort. The planting of trees shall be done in accordance with either the standardized landscape specifications jointly adopted by the Virginia Nursery and Landscape Association, the Virginia Society of Landscape Designers and the Virginia Chapter of the American Society of Landscape Architects, or the road and bridge specifications of the Virginia Department of Transportation.

G. Existing trees which are to be preserved may be included to meet all or part of the canopy requirements, and may include wooded preserves, if the site plan identifies such trees and the trees meet standards of desirability and life-year expectancy which the locality may establish.

H. For purposes of this section:

"Tree canopy" or "tree cover" includes all areas of coverage by plant material exceeding five feet in height, and the extent of planted tree canopy at 10 or 20 years maturity. Planted canopy at 10 or 20

60 years maturity shall be based on published reference texts generally accepted by landscape architects, nurserymen, and arborists in the community, and the texts shall be specified in the ordinance.

62 I. Penalties for violations of ordinances adopted pursuant to this section shall be the same as those applicable to violations of zoning ordinances of the locality.

64 J. In no event shall any local tree replacement or planting ordinance adopted pursuant to this section exceed the requirements set forth herein.

66 K. Nothing in this section shall invalidate any local ordinance adopted pursuant to the provisions of this section prior to July 1, 1990, which imposes standards for tree replacement or planting during the development process.

69 L. Nothing in this section shall invalidate any local ordinance adopted by the City of Williamsburg that imposes standards for 10-year-minimum tree cover replacement or planting during the development process.

72 M. Nothing in this section shall invalidate any local ordinance adopted pursuant to the provisions of this section after July 1, 1990, which imposes standards for 20-year-minimum tree cover replacement or planting during the development process.

75 *N. Nothing in this section shall prohibit or unreasonably limit silvicultural practices in accordance with § 10.1-1126.1.*

77 **§ 15.2-961.1. Conservation of trees during land development process in localities belonging to a nonattainment area for air quality standards.**

79 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.

82 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.

88 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:

- 91 1. Ten percent tree canopy for a site zoned business, commercial, or industrial;
- 92 2. Ten percent tree canopy for a residential site zoned 20 or more units per acre;
- 93 3. Fifteen percent tree canopy for a residential site zoned more than eight but less than 20 units per acre;
- 94 4. Twenty percent tree canopy for a residential site zoned more than four but not more than eight units per acre;
- 95 5. Twenty-five percent tree canopy for a residential site zoned more than two but not more than four units per acre; and
- 96 6. Thirty percent tree canopy for a residential site zoned two or fewer units per acre.

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

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

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

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

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

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

121 If, in the opinion of the developer, the project cannot meet the tree preservation target due to the

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

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

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

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

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

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

I. 1. In recognition of the added benefits of tree preservation, the ordinance shall provide for an

183 additional tree canopy credit of up to one and one-quarter times the canopy area at the time of plan
184 submission for individual trees or the coalesced canopy of forested areas preserved from the
185 predevelopment tree canopy.

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

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

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

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

200 1. The ordinance shall provide canopy credits of one and one-half the area normally projected for
201 trees planted to absorb or intercept air pollutants, tree species that produce lower levels of reactive
202 volatile organic compounds, or trees that act to reduce air pollution or greenhouse gas emissions by
203 conserving the energy used to cool and heat buildings.

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

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

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

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

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

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

228 M. In order to provide higher levels of biodiversity and to minimize the spread of pests and diseases,
229 or to limit the use of species that cause negative impacts to native plant communities, cause damage to
230 nearby structures, or possess inherent physiological traits that prone trees to structural failure, the
231 ordinance may designate species that cannot be used to meet tree canopy requirements or designate
232 species that will only receive partial 20-year tree canopy credits.

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

244 O. The following process shall be used to demonstrate achievement of the required percentage of tree

canopy listed in subsection C:

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

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

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

4. Site plans requiring tree planting shall provide a planting schedule that provides botanical and common names of trees, the number of trees being planted, the total of tree canopy area given to each species, variety or cultivars planted, total of tree canopy area that will be provided by all trees, planting sizes, and associated planting specifications. The site plan will also provide a landscape plan that delineates where the trees shall be planted.

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

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

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

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

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

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

§ 15.2-961.3. Replacement of trees during development process in localities.

A. Any locality may adopt an ordinance providing for the planting and replacement of trees during the development process pursuant to the provisions of this section.

B. The ordinance shall require that the site plan for any subdivision or development include the planting or replacement of trees on the site to the extent that, at 20 years, minimum tree canopies or covers will be provided in areas to be designated in the ordinance, 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 10 but less than 20 units per acre;

4. Twenty percent tree canopy for a residential site zoned 10 units or less per acre; and

5. The tree canopy percentage for a mixed-use development shall be the percentage applicable to the predominant use of the development. For purposes of this subdivision, "predominant use" means the use within the development that constitutes the largest percentage of gross land area or, in the case of a building or buildings, the largest percentage of the total floor area.

However, the City of Williamsburg may require at 10 years the minimum tree canopies or covers set out in this subsection.

C. The ordinance shall require that the site plan for any subdivision or development include, at 20 years, that a minimum 10 percent tree canopy will be provided on the site of any cemetery as defined in § 54.1-2310, notwithstanding any other provision of this section. In no event shall any local tree replacement or planting ordinance adopted pursuant to this section exceed the requirements of this

306 subsection.

307 D. The ordinance shall provide for reasonable provisions for reducing the tree canopy requirements
308 of subsection B or granting tree cover credit in consideration of the preservation of existing tree cover
309 or for preservation of trees of outstanding age, size, or physical characteristics.

310 E. The ordinance shall provide for reasonable exceptions to or deviations from these requirements to
311 allow for the reasonable development of farm land or other areas devoid of healthy or suitable woody
312 materials, for the preservation of wetlands, or otherwise when the strict application of the requirements
313 would result in unnecessary or unreasonable hardship to the developer. In such instances, the ordinance
314 may provide for a tree canopy bank whereby a portion of a development's tree canopy requirement may
315 be met from off-site planting or replacement of trees at the direction of the locality. Any such bank shall
316 be within the locality and located as closely as feasible to where the development project is situated. If
317 there is no bank within the locality of the development project with sufficient credits to meet the
318 project's off-site needs, and with the approval of the locality where the development project is located,
319 the unmet portion of a development's tree canopy requirement may be met by payment of an amount
320 equal to no less than the development project's avoided costs for the unmet portion to the state treasury
321 and credited to the Natural Resources Commitment Fund, pursuant to subsection A of § 10.1-2128.1.
322 Amounts credited to the Natural Resources Commitment Fund pursuant to this subsection shall be
323 distributed to the Virginia Agricultural Best Management Practices Cost-Share Program and applied to
324 the implementation of riparian forested buffer best management practices. The following shall be exempt
325 from the requirements of any tree replacement or planting ordinance promulgated under this section:
326 dedicated school sites, playing fields and other nonwooded recreation areas, and other facilities and
327 uses of a similar nature.

328 F. The ordinance may designate tree species that cannot be planted to meet minimum tree canopy
329 requirements due to tendencies of such species to (i) negatively impact native plant communities, (ii)
330 cause damage to nearby structures and infrastructure, or (iii) possess inherent physiological traits that
331 cause such trees to structurally fail. All trees to be planted shall meet the specifications of the
332 AmericanHort. The planting of trees shall be done in accordance with either the standardized landscape
333 specifications adopted by the Virginia Nursery and Landscape Association, the Virginia Society of
334 Landscape Designers, or the Virginia Chapter of the American Society of Landscape Architects or, if
335 applicable, the road and bridge specifications of the Virginia Department of Transportation.

336 G. Existing trees that are to be preserved may be included to meet all or part of the canopy
337 requirements, and may include wooded preserves, if the site plan identifies such trees and the trees meet
338 standards of desirability and life-year expectancy that the locality may establish.

339 H. For purposes of this section, "tree canopy" or "tree cover" includes all areas of coverage by
340 plant material exceeding five feet in height, and the extent of planted tree canopy at 10 or 20 years'
341 maturity. Planted canopy at 10 or 20 years' maturity shall be based on published reference texts
342 generally accepted by landscape architects, nurserymen, and arborists in the community or standards
343 adopted by the Virginia State Forester, and the texts shall be specified in the ordinance.

344 I. Penalties for violations of ordinances adopted pursuant to this section shall be the same as those
345 applicable to violations of zoning ordinances of the locality.

346 J. In no event shall any local tree replacement or planting ordinance adopted pursuant to this
347 section exceed the requirements set forth herein. Nothing in this section shall prohibit or unreasonably
348 limit silvicultural practices in accordance with § 10.1-1126.1.

349 K. Nothing in this section shall invalidate any local ordinance adopted by the City of Williamsburg
350 that imposes standards for 10-year-minimum tree cover replacement or planting during the development
351 process.

352 L. Nothing in this section shall invalidate any local ordinance adopted pursuant to the provisions of
353 § 15.2-961 or 15.2-961.1.

354 **§ 15.2-961.4. Conservation of trees during land development process in localities.**

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

358 B. Any locality may adopt an ordinance providing for the conservation of trees during the land
359 development process pursuant to the provisions of this section. In no event shall any local tree
360 conservation ordinance adopted pursuant to this section also impose the tree replacement provisions of
361 § 15.2-961, 15.2-961.1, or 15.2-961.3.

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

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

acre;

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

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

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

7. The tree canopy percentage for a mixed-use development shall be the percentage applicable to the predominant use of the development. For purposes of this subdivision, "predominant use" means the use within the development that constitutes the largest percentage of gross land area or, in the case of a building or buildings, the largest percentage of the total floor area; and

8. A locality may increase any of the tree canopy percentages applicable to a subdivision or development as established in subdivisions 1 through 6 by an amount not to exceed 10 percent of the percentage authorized in each subdivision of this subsection if as provided in its ordinance (i) the locality grants to such subdivision or development either administrative approval of a mutually agreed-upon reduction of lot size requirements, setback requirements, yard requirements, or parking requirements or administrative approval of a mutually agreed-upon increase in density or (ii) 20 percent or more of the land area of the subdivision or development is within an enhanced tree canopy area. However, if a locality increases the required canopies pursuant to clause (i) or (ii), it shall specify in its ordinance the increased percentages applicable to each of the uses enumerated in subdivisions 1 through 6.

In meeting these percentages, (a) the ordinance shall first emphasize the preservation of existing tree canopy where that canopy meets local standards for health and structural condition and where it is feasible to do so within the framework of design standards and densities allowed by the local zoning and other development ordinances and (b) second, where it is not feasible in whole or in part for any of the justifications listed in subsection E to preserve existing canopy in the required percentages listed in this subsection, the ordinance shall provide for the planting of new trees to meet the required percentages. Computation of achievement of the percentage of tree canopy or tree cover percentage required for the applicable use by the ordinance shall be determined by the locality using standards adopted by the Virginia State Forester.

For purposes of this subdivision:

"Enhanced tree canopy area" means any land area that is (i) a Resource Protection Area (RPA) as defined by local ordinance adopted pursuant to the Chesapeake Bay Preservation Act (§ 62.1-44.15:67 et seq.); (ii) a wetland that is not determined by the Department of Environmental Quality to be an isolated wetland of minimal ecological value as defined in subsection B of 9VAC25-210-10; (iii) located in a Federal Emergency Management Agency-designated 100-year floodplain; (iv) identified by the Virginia Natural Heritage Program as a rare or state significant natural community; (v) comprised of, at the time of permit application for the subdivision or development, tree canopy that covers an area equal to 3,000 square feet or more per quarter acre of the property with an understory of vegetation that is not managed turf; or (vi) found as a result of compliance with any applicable existing state or federal permitting requirements to contain listed federal or state threatened or endangered species.

Nothing in this subdivision shall be deemed to alter existing law or regulation governing land disturbance or other construction activity in any enhanced tree canopy area.

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

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

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

2. The predevelopment condition of vegetation does not meet the locality's standards for health and structural condition or for trees that should be preserved.

3. An International Society of Arboriculture certified arborist, ASCA Registered Consulting Arborist, or licensed landscape architect determines and demonstrates in writing to the locality why construction activities that cannot reasonably be avoided could be reasonably expected to impact existing trees to the extent that they would not likely survive in a healthy and structurally sound manner. This includes activities that would cause direct physical damage to the trees, including root systems, or cause environmental changes that could result in or predispose the trees to structural and health problems.

4. The development is a redevelopment project and a certified arborist or licensed landscape architect determines and provides in writing to the locality that the planting of trees on site will better

429 achieve the applicable canopy goal.

430 The allowable deviations provided in subdivisions 1 through 4 shall be included verbatim in the
431 ordinance and in any guidance or worksheets provided to applicants on meeting the requirements of the
432 ordinance.

433 If, in the opinion of the developer, the project cannot meet the tree preservation target due to the
434 conditions described in subdivision 1, 2, 3, or 4, the developer may request a deviation from the
435 preservation requirement in subsection D. In the request for deviation for conditions described in
436 subdivision 1, 2, or 3, the developer shall provide a letter to the locality from an International Society
437 of Arboriculture certified arborist, ASCA Registered Consulting Arborist, or licensed landscape architect
438 that provides justification for the deviation, describes how the deviation is the minimum necessary to
439 afford relief, and describes how the requirements of subsection C will be met through tree planting or a
440 tree canopy bank or fund established by the locality. In the request for a deviation for the condition
441 described in subdivision 4, the developer's letter shall describe how the requirements of subsection C
442 will be met through tree planting on site. Proposed deviations shall be reviewed by the locality's
443 employed or retained urban forester, International Society of Arboriculture certified arborist, ASCA
444 Registered Consulting arborist, licensed landscape architect, or in consultation with the locality's land
445 development or licensed professional civil engineering review staff, who may propose an alternative site
446 design based upon adopted land development practices and sound vegetation management practices that
447 take into account the relationship between the cost of conservation and the benefits of the trees to be
448 preserved as described in ANSI A300 (Part 5) — 2019 Management: Tree, Shrub, and Other Woody
449 Plant Maintenance — Standard Practices, Management of Trees and Shrubs During Site Planning, Site
450 Development, and Construction, Annex A, A-1.5, Cost Benefits Analysis (or the latest version of this
451 standard). The developer shall consider the alternative and redesign the plan accordingly, or elect to
452 satisfy the unmet portion of the tree preservation target through onsite tree planting or through the
453 off-site planting mechanisms identified in subsection G, so long as the developer provides the locality
454 with an explanation of why the alternative design recommendations were rejected. Letters of explanation
455 from the developer for any request to deviate from the alternative site design proposed by the locality
456 shall be prepared and certified by a licensed professional engineer as defined in § 54.1-400,
457 International Society of Arboriculture certified arborist, ASCA Registered Consulting Arborist, licensed
458 landscape architect, or other authorized licensed professional. If arboricultural issues are part of the
459 explanation, then the letter shall be signed by a licensed landscape architect. If arboricultural issues are
460 the sole subject of the letter of requesting a deviation from a locality-proposed alternative site design,
461 then certification by a licensed professional engineer shall not be required.

462 F. The ordinance shall provide for deviations of the overall canopy requirements set forth in
463 subsection C (i) to allow for the preservation of wetlands, (ii) to allow for the development of farmland
464 or other areas previously devoid of healthy or suitable tree canopy, or (iii) where the strict application
465 of the requirements would result in unreasonable hardship to the developer. Nothing in this subsection
466 shall prevent a locality from adopting the discretionary increase in canopy requirements authorized in
467 subdivision C 8. Nothing in this section shall prohibit or unreasonably limit silvicultural practices in
468 accordance with § 10.1-1126.1.

469 G. The ordinance shall provide for the establishment or use of a tree canopy bank or fund whereby
470 any portion of the tree canopy requirement that cannot be met on site may be met through off-site tree
471 preservation or tree planting efforts. Such provisions may be offered where it can be demonstrated that
472 application of the tree canopy requirements of subsection C would cause irresolvable conflicts with
473 other local site development requirements or standards, where sites or portions of sites lack sufficient
474 space for future tree growth, where planting spaces will not provide adequate space for healthy root
475 development, where trees will cause unavoidable conflicts with underground or overhead utilities, or
476 where it can be demonstrated that trees are likely to cause damage to public infrastructure. The
477 ordinance may utilize any of the following off-site canopy establishment mechanisms:

478 1. A tree canopy bank may be established by a locality, a for-profit entity, or an Internal Revenue
479 Service-qualified § 501(c)(3) nonprofit organization that is qualified in tree planting and maintenance in
480 order for the locality to facilitate off-site tree preservation, tree planting, stream bank, and riparian
481 restoration projects. Banking efforts shall provide tree canopy that is preserved in perpetuity through
482 conservation easements, deed restrictions, or similar protective mechanisms acceptable to the locality.
483 Development projects that use off-site banking shall meet the same ordinance standards established for
484 onsite tree canopy; however, the locality may also require the submission of five-year management plans
485 and funds to ensure the execution of maintenance and management obligations identified in those plans.
486 Any such bank shall be within the locality and located as closely as feasible to where the development
487 project is situated. If there is no bank within the locality of the development project with sufficient
488 credits to meet the project's off-site needs, and with the approval of the locality where the development
489 project is located, the unmet portion of a development's tree canopy requirement may be met by
490 payment of an amount equal to no less than the development project's avoided costs for the unmet

portion to the state treasury and credited to the Natural Resources Commitment Fund, pursuant to subsection A of § 10.1-2128.1. Amounts credited to the Natural Resources Commitment Fund pursuant to this subsection shall be distributed to the Virginia Agricultural Best Management Practices Cost-Share Program and applied to the implementation of riparian forested buffer best management practices.

2. A tree canopy fund may be established to act as a fiscal mechanism to collect, manage, and disburse fees collected from developers that cannot provide full canopy requirements onsite. The locality may use this fund directly to plant and then maintain trees on public property, or the locality may elect to disburse this fund, for tree planting programs that benefit the community at large, to community-based organizations exempt from taxation under § 501(c)(3) of the Internal Revenue Code that are focused on tree planting or community beautification or on advancing environmental goals, such as pollution reduction, stormwater management, flood mitigation, urban heat reduction, and similar goals. For the purposes of establishing consistent and predictable fees, the ordinance shall establish cost units that are based on average costs to establish 20-year canopy areas using two-inch caliper nursery stock trees. Any funds collected by localities for these purposes shall be spent within a five-year period established by the collection date by the locality or disbursed to a community-based organization for tree planting and subsequent maintenance provided for in this subsection, or the locality shall return such funds to the original contributor or legal successor.

H. The following uses shall be exempt from the requirements of any ordinance promulgated under this section: bona fide silvicultural activity as defined by § 10.1-1181.1 and the areas of sites included in lakes, ponds, and the normal water elevation area of stormwater retention facilities. The ordinance shall modify the canopy requirements of dedicated school sites, playing fields, and other nonwooded active recreation areas by allowing these and other facilities and uses of a similar nature to provide 10 percent tree canopy 20 years after development. The ordinance shall require that the site plan for any subdivision or development include, at 20 years, that a minimum 10 percent tree canopy will be provided on the site of any cemetery as defined in § 54.1-2310, notwithstanding any other provision of this section.

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

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

a. The ordinance may provide canopy credits of up to one and one-half times the actual canopy area for the preservation of forest communities that achieve environmental, ecological, and wildlife conservation objectives set by the locality.

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

J. The following additional credits shall be provided in the ordinance in connection with tree planting of one and one-half the area normally projected for:

1. Trees planted to absorb or intercept air pollutants, tree species that produce lower levels of reactive volatile organic compounds, or trees that act to reduce air pollution or greenhouse gas emissions by conserving the energy used to cool and heat buildings.

2. Trees planted for water quality-related reforestation or afforestation projects, and for trees planted in approved low-impact development and bioretention water quality facilities.

3. Native tree species planted to provide food, nesting, habitat, and migration opportunities for wildlife. These canopy credits may also apply to cultivars of native species if the locality determines that such a cultivar is capable of providing the same type and extent of wildlife benefit as the species it is derived from.

4. Native tree species that are propagated from seed or tissue collected within the mid-Atlantic region.

5. The use of cultivars or varieties that develop desirable growth and structural patterns, resist decay organisms and the development of cavities, show high levels of resistance to disease or insect infestations, or exhibit high survival rates in harsh urban environments.

6. Trees planted as a best management practice (BMP) approved pursuant to the Stormwater Management Act (§ 62.1-44.15:24 et seq.) and Erosion and Sediment Control Law (§ 62.1-44.15:51 et seq.).

If the developer and the locality agree upon a canopy for the subdivision or development that exceeds the canopy percentage required by subsection C by more than 10 percent, the ordinance may provide that 50 percent of the amount by which the canopy exceeds the required canopy may be used by

the applicant as credits toward meeting a canopy requirement on another project within the locality. Such credits may only be earned if the project receiving the credits is identified in the canopy plan for the project generating the credits or is identified in writing to the locality by the applicant within one year of issuance of the building permit for the project.

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

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

M. In order to provide higher levels of biodiversity and to minimize the spread of pests and diseases, or to limit the use of species that cause negative impacts to native plant communities, cause damage to nearby structures, or possess inherent physiological traits that prone trees to structural failure, the ordinance may designate species that cannot be used to meet tree canopy requirements or designate species that will only receive partial 20-year tree canopy credits.

N. The locality may allow the use of tree seedlings for meeting tree canopy requirements. In these cases, the ordinance shall allow the ground surface area of seedling planting areas to equate to a 20-year canopy credit area. The locality may set standards for seedling mortality rates and replacement procedures if unacceptable rates of mortality occur. The locality may elect to allow native woody shrubs or native woody seed mix to substitute for tree species as long as these treatments do not exceed 33 percent of the overall seedling planting area. The number of a single species may not exceed 10 percent of the overall number of trees or shrubs planted to meet the provisions of this subsection.

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

1. The site plan shall graphically delineate the edges of predevelopment tree canopy, the proposed limits of disturbance on grading or erosion and sedimentation control plans, and the location of tree protective fencing or other tree protective devices allowed in the Virginia Erosion and Sediment Control Handbook or any successor publication issued by the Department of Environmental Quality.

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

3. The site plan shall include the 20-year tree canopy calculations on a worksheet provided by the locality that adheres to standards established by the Virginia State Forester for computation of achievement of tree canopy percentages.

4. Site plans requiring tree planting shall provide a planting schedule that provides botanical and common names of trees, the number of trees being planted, the total of tree canopy area given to each species, variety or cultivars planted, total of tree canopy area that will be provided by all trees, planting sizes, and associated planting specifications. The site plan will also provide a landscape plan that delineates where the trees shall be planted.

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

Q. In the event that existing tree canopy proposed to be preserved for tree canopy credits dies or must be removed because it represents a hazard, the locality may require the developer to remove the tree, or a portion of the tree and to replace the missing canopy area by the planting of nursery stock trees, or if a viable alternative, by tree seedlings. Existing trees that have been granted credits will be replaced with canopy area determined using the same supplemental credit multipliers as originally granted for that canopy area.

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

S. Except as provided in subsection C, no local tree conservation ordinance adopted pursuant to this section shall exceed the requirements set forth herein.

T. Nothing in this section shall invalidate any local ordinance adopted pursuant to the provisions of § 15.2-961 or 15.2-961.1.

2. That stakeholders representing at least one representative of each of the six sectors represented on the Collaborative Decision-Making Group that served during completion of the report required

614 by Chapters 89 and 90 of the Acts of Assembly of 2021, Special Session I, as well as certified
615 arborists, licensed landscape architects, and urban foresters employed by both the public and
616 private sectors and representatives of localities within Planning Districts 17 and 18, the Southwest
617 and Southside regions of Virginia, and the State Forester shall meet at least twice prior to the
618 2023 Session of the General Assembly to consider (i) the provisions of § 15.2-961.4 of the Code of
619 Virginia, as created by this act; (ii) whether additional allowances should be permitted for tree
620 planting and the use of in-lieu funds outside the locality where the development project occurs;
621 (iii) any changes warranted to address the needs of rural localities; and (iv) how technical
622 assistance could best be provided to all localities implementing the tree canopy ordinances
623 provided by this act. The participants shall make recommendations to the Chairmen of the House
624 Committee on Counties, Cities and Towns and the Senate Committee on Agriculture, Conservation
625 and Natural Resources by December 1, 2022.
626 3. That the provisions of § 15.2-961.4 of the Code of Virginia, as created by this act, shall not
627 become effective unless reenacted by the 2023 Session of the General Assembly.