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SENATE BILL NO. 77

AMENDMENT IN THE NATURE OF A SUBSTITUTE

(Proposed by the Senate Committee on Agriculture, Conservation and Natural Resources on February 2, 2012)

(Patron Prior to Substitute—Senator Watkins)

A BILL to amend and reenact §§ 10.1-603.8:1, 62.1-44.19:13, 62.1-44.19:15, and 62.1-44.19:18 of the Code of Virginia and to amend the Code of Virginia by adding in Chapter 6 of Title 10.1 an article numbered 1.1:1, consisting of sections numbered 10.1-603.15:1 through 10.1-603.15:5, and by adding in Article 4.02 of Chapter 3.1 of Title 62.1 a section numbered 62.1-44.19:20, relating to the expansion of the nutrient credit exchange program and the development of a credit registry.

Be it enacted by the General Assembly of Virginia:

1. That §§ 10.1-603.8:1, 62.1-44.19:13, 62.1-44.19:15, and 62.1-44.19:18 of the Code of Virginia are amended and reenacted and that the Code of Virginia is amended by adding in Chapter 6 of Title 10.1 an article numbered 1.1:1, consisting of sections numbered 10.1-603.15:1 through 10.1-603.15:5, and by adding in Article 4.02 of Chapter 3.1 of Title 62.1 a section numbered 62.1-44.19:20 as follows:

§ 10.1-603.8:1. Nutrient credit use and additional off-site options for construction activities.

A. As used in this section:

"Nonpoint nutrient offset" means nutrient reductions certified as nonpoint nutrient offsets under the Chesapeake Bay Watershed Nutrient Exchange Program (§ 62.1-44.19:12 et seq.).

"Nutrient credit" or "credit" means a nutrient credit certified pursuant to Article 1.1:1 (§ 10.1-603.15:1 et seq.).

"Permit issuing authority" has the same meaning as in § 10.1-603.2 and includes any locality that has adopted a local stormwater management program.

"Tributary" has the same meaning as in § 62.1-44.19:13. For for areas outside of the Chesapeake Bay watershed, "tributary" includes the following watersheds: Albemarle Sound, Coastal; Atlantic Ocean, Coastal; Big Sandy; Chowan; Clinch-Powell; New Holston (Upper Tennessee); New River; Roanoke; and Yadkin.

B. Permit issuing authorities are authorized to allow compliance with stormwater nonpoint nutrient runoff water quality criteria established pursuant to § 10.1-603.4, in whole or in part, through the use of the permittee's applicant's acquisition of nonpoint nutrient offsets nutrient credits in the same tributary.

C. No permit issuing authority shall allow the use of nonpoint nutrient offsets applicant shall use nutrient credits to address water quantity control requirements. No permit issuing authority shall allow the use of nonpoint nutrient offsets applicant shall use nutrient credits or other off-site options in contravention of local water quality-based limitations: (i) consistent with determinations made determined pursuant to subsection B of § 62.1-44.19:7 § 62.1-44.19:14, (ii) contained in a municipal separate storm sewer system (MS4) program plan approved by the Department, or adopted pursuant to § 10.1-603.7 or other applicable authority, (iii) deemed necessary to protect public water supplies from demonstrated adverse nutrient impacts, or (iv) as otherwise may be established or approved by the Board. Where such a limitation exists, off-site options may be used provided that such options do not preclude or impair compliance with the local limitation.

D. A permit issuing authority shall allow off-site options in accordance with subsection I when:

1. Less than five acres of land will be disturbed;

2. The postconstruction phosphorous control requirement is less than 10 pounds per year; or

3. The permit applicant demonstrates to the satisfaction of the permit issuing authority that (i) alternative site designs have been considered that may accommodate on-site best management practices, (ii) on-site best management practices have been considered in alternative site designs to the maximum extent practicable, (iii) appropriate on-site best management practices will be implemented, and (iv) full compliance with postdevelopment nonpoint nutrient runoff compliance requirements cannot practicably be met on site. For purposes of this subdivision, if an applicant demonstrates on-site control of at least 75 percent of the required phosphorous nutrient reductions, the applicant shall be deemed to have met the requirements of clauses (i) through (iv);

2. Less than five acres of land will be disturbed; or

3. The postconstruction phosphorous control requirement is less than 10 pounds per year.

E. Documentation of the permittee's applicant's acquisition of nonpoint nutrient offsets nutrient credits shall be provided to the permit issuing authority and the Department in a certification from an offset broker the credit provider documenting the number of phosphorus nonpoint nutrient offsets nutrient credits acquired and the associated ratio of nitrogen nonpoint nutrient offsets at the offset nutrient credits at the credit-generating facility. The offset broker shall pay the permit issuing authority

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60 *Until the effective date of regulations establishing application fees in accordance with § 10.1-603.15:2,*
61 *the credit provider shall pay the Department a water quality enhancement fee equal to six percent of the*
62 *amount paid by the permittee for the nonpoint nutrient offsets. If a locality is not the permit issuing*
63 *authority, such credits. Such fee shall be deposited into the Virginia Stormwater Management Fund*
64 *established by § 10.1-603.4:1. If the permit issuing authority is a locality, such fees shall be used solely*
65 *in the locality where the associated stormwater permit applies for inspection and maintenance of*
66 *stormwater best management practices, stormwater educational programs, or programs designed to*
67 *protect or improve local water quality.*

68 F. ~~Nonpoint nutrient offsets~~ *Nutrient credits* used pursuant to subsection B shall be generated in the
69 same or adjacent ~~eight digit eight-digit~~ hydrologic unit code as defined by the United States Geological
70 Survey as the permitted site. ~~Nonpoint nutrient offsets except as otherwise limited in subsection C.~~
71 *Nutrient credits* outside the same or adjacent ~~eight digit eight-digit~~ hydrologic unit code may only be
72 used if it is determined by the permit issuing authority that no ~~nonpoint nutrient offsets credits~~ are
73 available within the same or adjacent ~~eight digit eight-digit~~ hydrologic unit code when the permit issuing
74 authority accepts the final site design. In such cases, and subject to other limitations imposed in this
75 section, ~~nonpoint nutrient offsets generated credits available~~ within the same tributary may be used. In
76 no case shall ~~nonpoint nutrient offsets credits~~ from another tributary be used.

77 G. For that portion of a site's compliance with stormwater nonpoint nutrient runoff water quality
78 criteria being obtained through ~~nonpoint nutrient offsets~~, a permit issuing authority shall (i) ~~use nutrient~~
79 ~~credits, the applicant shall (i) comply with a 1:1 ratio of the nonpoint nutrient offsets nutrient credits to~~
80 ~~the site's remaining postdevelopment nonpoint nutrient runoff compliance requirement and (ii) assure that~~
81 ~~the nonpoint nutrient offsets are secured in perpetuity being met by credit use and (ii) use credits~~
82 ~~certified as perpetual credits pursuant to Article 1.1:1 (§ 10.1-603.15:1 et seq.).~~

83 H. No permit issuing authority may grant an exception to, or waiver of, postdevelopment nonpoint
84 nutrient runoff compliance requirements unless off-site options have been considered and found not
85 available.

86 I. The permit issuing authority shall require that ~~nonpoint nutrient offsets nutrient credits~~ and other
87 off-site options approved by the Department or applicable state board, including locality pollutant
88 loading pro rata share programs established pursuant to § 15.2-2243, achieve the necessary nutrient
89 reductions prior to the commencement of the ~~permittee's applicant's~~ land-disturbing activity. A pollutant
90 loading pro rata share program established by a locality pursuant to § 15.2-2243 and approved by the
91 Department or applicable state board prior to January 1, 2011, including those that may achieve nutrient
92 reductions after the commencement of the land-disturbing activity, may continue to operate in the
93 approved manner for a transition period ending June 30, 2014. The ~~permittee applicant~~ shall have the
94 right to select between the use of ~~nonpoint nutrient offsets nutrient credits~~ or other off-site options,
95 except during the transition period in those localities to which the transition period applies. The locality
96 may use funds collected for nutrient reductions pursuant to a locality pollutant loading pro rata share
97 program under § 15.2-2243 for nutrient reductions in the same tributary within the same locality as the
98 land-disturbing activity or for the acquisition of ~~nonpoint nutrient offsets nutrient credits~~. In the case of
99 a phased project, the ~~permittee applicant~~ may acquire or achieve the off-site nutrient reductions prior to
100 the commencement of each phase of the land-disturbing activity in an amount sufficient for each such
101 phase.

102 J. ~~The Board may establish by regulation a stormwater nutrient program for portions of the~~
103 ~~Commonwealth that do not drain into the Chesapeake Bay.~~

104 K. ~~Nutrient reductions obtained through nonpoint nutrient offsets nutrient credits shall be credited~~
105 ~~toward compliance with any nutrient allocation assigned to a municipal separate storm sewer system in a~~
106 ~~Virginia Stormwater Management Program Permit or Total Maximum Daily Load applicable to the~~
107 ~~location where the activity for which the nonpoint nutrient offsets nutrient credits are used takes place.~~
108 ~~If the activity for which the nonpoint nutrient offsets nutrient credits are used does not discharge to a~~
109 ~~municipal separate storm sewer system, the nutrient reductions shall be credited toward compliance with~~
110 ~~the applicable nutrient allocation.~~

111 L. ~~K.~~ A permit issuing authority shall allow the full or partial substitution of ~~nonpoint nutrient offsets~~
112 ~~perpetual nutrient credits~~ for existing on-site nutrient controls when (i) the ~~nonpoint nutrient offsets~~
113 ~~nutrient credits~~ will compensate for 10 or fewer pounds of the annual phosphorous requirement
114 associated with the original land-disturbing activity or (ii) existing on-site controls are not functioning as
115 anticipated after reasonable attempts to comply with applicable maintenance agreements or requirements
116 and the use of ~~nonpoint nutrient offsets nutrient credits~~ will account for the deficiency. ~~The Upon~~
117 ~~determination by the permit issuing authority that the conditions established by clause (i) or (ii) has~~
118 ~~been met, the party responsible for maintenance shall be released from maintenance obligations related~~
119 ~~to the on-site phosphorous controls for which the nonpoint nutrient offsets nutrient credits are~~
120 ~~substituted.~~

121 M. ~~L.~~ To the extent available, with the consent of the permittee, the permit issuing authority *or the*

122 Department may include the use of ~~nonpoint nutrient offsets~~ *nutrient credits* or other off-site measures
123 in resolving enforcement actions to compensate for (i) nutrient control deficiencies occurring during the
124 period of noncompliance and (ii) permanent nutrient control deficiencies.

125 ~~N. M.~~ This section shall not be construed as limiting the authority established under § 15.2-2243;
126 however, under any pollutant loading pro rata share program established thereunder, the subdivider or
127 developer shall be given appropriate credit for nutrient reductions achieved through ~~nonpoint nutrient~~
128 ~~offsets~~ *nutrient credits* or other off-site options.

129 *N. In order to properly account for allowed nonpoint nutrient off-site reductions, an applicant shall*
130 *report to the Department in accordance with Department procedures information regarding all off-site*
131 *reductions that have been authorized to meet stormwater postdevelopment nonpoint nutrient runoff*
132 *compliance requirements.*

133 *O. An applicant or a permittee found to be in noncompliance with the requirements of this section*
134 *shall be subject to the enforcement and penalty provisions of this article.*

135 Article 1.1:1.

136 NUTRIENT TRADING ACT.

137 § 10.1-603.15:1. Definitions.

138 "Best management practice," "practice," or "BMP" means a structural practice, nonstructural
139 practice, or other management practice used to prevent or reduce nutrient loads reaching surface waters
140 or the adverse effects thereof.

141 "Board" means the Virginia Soil and Water Conservation Board.

142 "Department" means the Department of Conservation and Recreation.

143 "MS4" means a municipal separate storm sewer system.

144 "Nutrient credit" or "credit" means a nutrient reduction that is certified pursuant to this article and
145 expressed in pounds of phosphorus or nitrogen either (i) delivered to tidal waters when the credit is
146 generated within the Chesapeake Bay Watershed or (ii) as otherwise specified when generated in the
147 Southern Rivers watersheds.

148 § 10.1-603.15:2. Nutrient credit certification.

149 A. The Board shall adopt regulations for the purpose of establishing statewide procedures for the
150 certification by the Board of nutrient credits other than (i) point source nitrogen and point source
151 phosphorus credits generated by point sources covered by the general permit issued pursuant to
152 § 62.1-44.19:14 and (ii) nutrient credits certified by the State Water Control Board and the Department
153 of Environmental Quality pursuant to § 62.1-44-19:20. During the promulgation of the regulations, the
154 Board shall consult with the Department of Environmental Quality to avoid duplication and promote
155 consistency where appropriate. The regulations shall be designed in a manner that promotes certainty
156 for credit market participants to the extent possible.

157 B. The regulations adopted pursuant to this section shall:

158 1. Establish procedures for the certification and registration of credits including:

159 a. Certifying credits that may be generated from agricultural and urban stormwater best management
160 practices, use or management of manures, managed turf, land use conversion, stream or wetlands
161 projects, shellfish aquaculture, algal harvesting, and other established or innovative methods of nutrient
162 control or removal, as appropriate;

163 b. Establishing a process and standards for wetland or stream credits to be converted to nutrient
164 credits. Such process and standards shall only apply to wetland or stream credits established after July
165 1, 2005, and have not been transferred or used. Under no circumstances shall such credits be used for
166 both wetland or stream credit and nutrient credit purposes;

167 c. Certifying credits from multiple practices that are bundled as a package by the applicant;

168 d. Prohibiting the certification of credits generated from activities funded by federal or state water
169 quality grant funds; however, baseline levels may be achieved through the use of such grants;

170 e. Establishing a timely and efficient review certification process including application requirements,
171 a reasonable application fee schedule not to exceed \$10,000 per application, and review and approval
172 procedures; and

173 f. Requiring public notification of a proposed nutrient credit generating facility;

174 2. Establish credit calculation procedures for all proposed credit generating practices, including the
175 determination of baselines in accordance with the following:

176 a. Baselines established for agricultural practices shall be those actions necessary to achieve a level
177 of reduction assigned in the Virginia Chesapeake Bay TMDL Watershed Implementation Plan or other
178 approved TMDLs as implemented on the tract, field, or other land area under consideration.

179 b. Baselines for urban practices from new development and redevelopment shall be in compliance
180 with postconstruction nutrient loading requirements of the Virginia Stormwater Management Program
181 regulations. Baselines for all other existing development shall be at a level necessary to achieve the
182 reductions assigned in the urban sector in the Virginia Chesapeake Bay TMDL Watershed

183 *Implementation Plan or other approved TMDLs.*

184 *c. Baselines for land use conversion shall be based on the pre-conversion land use and the level of*
185 *reductions assigned in the Virginia Chesapeake Bay TMDL Watershed Implementation Plan or other*
186 *approved TMDLs applicable to that land use.*

187 *d. Baselines for other credit generating practices shall be based on the Virginia Chesapeake Bay*
188 *TMDL Watershed Implementation Plan or other approved TMDLs using the best available scientific and*
189 *technical information.*

190 *e. Unless otherwise established by the Board, for certification within the Chesapeake Bay Watershed*
191 *a credit generating practice that involves land use conversion shall represent controls beyond those in*
192 *place as of July 1, 2005. For other waters for which a TMDL has been approved, the practice must*
193 *represent controls beyond those in place at the time of TMDL approval.*

194 *f. Credit quantities shall be established using the best available scientific and technical information*
195 *at the time of certification.*

196 *g. The Board shall establish baseline dates for all credit generating practices based on the Virginia*
197 *Chesapeake Bay TMDL Watershed Implementation Plan or other approved TMDLs;*

198 *3. Provide certification of credits on an appropriate temporal basis, such as annual, term of years,*
199 *or perpetual, depending on the nature of the credit generating practice. A credit shall be certified for a*
200 *term of at least 12 months;*

201 *4. Establish requirements to reasonably assure the generation of the credit depending on the nature*
202 *of the credit generating activity and use, such as legal instruments for perpetual credits, operation and*
203 *maintenance requirements, and associated financial assurance requirements. Financial assurance*
204 *requirements may include but not be limited to letters of credit, escrows, surety bonds, insurance, and,*
205 *where the credits are used or generated by a locality, authority, utility, sanitation district, or permittee*
206 *operating an MS4 or a point source permitted under Article 4.02 (§ 62.1-44.19:12 et seq.) of Chapter*
207 *3.1 of Title 62.1, its existing tax or rate authority;*

208 *5. Establish appropriate reporting requirements;*

209 *6. Provide for the ability of the Department to inspect or audit for compliance with the requirements*
210 *of such regulations;*

211 *7. Provide that the option to acquire nutrient credits for compliance purposes shall not eliminate any*
212 *requirement to comply with local water quality requirements;*

213 *8. Establish a credit retirement requirement whereby five percent of credits in the Chesapeake Bay*
214 *Watershed are permanently retired at the time of certification pursuant to this section for the purposes*
215 *of offsetting growth in unregulated nutrient loads; and*

216 *9. Establish such other requirements as the Board deems necessary and appropriate.*

217 *C. The Department shall establish and maintain an online Virginia Nutrient Credit Registry of*
218 *credits as follows:*

219 *1. The registry shall include all credits certified pursuant to this article and may include point*
220 *source nitrogen and point source phosphorus credits generated from point sources covered by the*
221 *general permit issued pursuant to § 62.1-44.19:14 or nutrient credits certified by the State Water*
222 *Control Board and the Department of Environmental Quality pursuant to § 62.1-44.19:20 at the option*
223 *of the owner. No other credits shall be valid for compliance purposes.*

224 *2. Registration of credits on the registry shall not preclude or restrict the right of the owner of such*
225 *credits from transferring the credits on such commercial terms as may be established by and between*
226 *the owner and the regulated or unregulated party acquiring the credits.*

227 *3. The Department shall establish procedures for the listing and tracking of credits on the registry,*
228 *including but not limited to (i) notification of the availability of new nutrient credits to the locality*
229 *where the credit generating practice is implemented at least five business days prior to listing on the*
230 *registry to provide the locality an opportunity to acquire such credits at fair market value for*
231 *compliance purposes and (ii) notification that the listing of credits on the registry does not constitute a*
232 *representation by the Board or the owner that the credits will satisfy the specific regulatory*
233 *requirements applicable to the prospective user's intended use and that the prospective user is*
234 *encouraged to contact the Board for technical assistance to identify limitations, if any, applicable to the*
235 *intended use.*

236 *4. The registry shall be publicly accessible without charge.*

237 *D. The owner or operator of a credit generating facility that fails to comply with the provisions of*
238 *this section shall be subject to the enforcement and penalty provisions of § 10.1-603.15:4.*

239 *§ 10.1-603.15:3. Nutrient credit use by regulated entities.*

240 *A. An MS4 permittee may acquire, use, and transfer nutrient credits for purposes of compliance with*
241 *any waste load allocations established as effluent limitations in an MS4 permit issued pursuant to*
242 *§ 10.1-603.2:1. Such compliance may be granted by the Department following review and approval of a*
243 *compliance plan submitted by the permittee that includes the use of nutrient credits. The permittee may*
244 *use such credits for compliance purposes only if (i) the credits, whether annual, term, or perpetual, are*

245 generated and applied for purposes of compliance for the same calendar year; (ii) the credits are
 246 acquired no later than a date following the calendar year in which the credits are applied as specified
 247 by the Department consistent with the permittee's Virginia Stormwater Management Program (VSMP)
 248 permit annual report deadline under such permit; (iii) the credits are generated in the same locality or
 249 tributary, except that permittees in the Eastern Shore basin may also acquire credits from the Potomac
 250 and Rappahannock tributaries; and (iv) the credits either are point source nitrogen or point source
 251 phosphorus credits generated by point sources covered by the general permit issued pursuant to
 252 § 62.1-44.19:14, or are certified pursuant to § 10.1-603.15:1 or 62.1-44.19:20. An MS4 permittee may
 253 enter into an agreement with one or more other MS4 permittees within the same locality or within the
 254 same or adjacent eight-digit hydrologic unit code to collectively meet the sum of any waste load
 255 allocations in their permits. Such permittees shall submit to the Department for approval a compliance
 256 plan to achieve their aggregate permit waste load allocations.

257 B. Those applicants required to comply with water quality requirements for land disturbing activities
 258 operating under a General VSMP Permit for Discharges of Stormwater from Construction Activities or
 259 a Construction Individual Permit may acquire and use perpetual nutrient credits certified and registered
 260 on the Virginia Nutrient Credit Registry in accordance with § 10.1-603.8:1.

261 C. Confined animal feeding operations issued permits pursuant to the State Water Control Law
 262 (§ 62.1-44.2 et seq.) may acquire, use and transfer credits for compliance for a portion of any waste
 263 load allocations contained in the provisions of a VPDES permit. Such method of compliance may be
 264 approved by the State Water Control Board following review of a compliance plan submitted by the
 265 permittee that includes the use of nutrient credits.

266 D. Facilities registered under the Industrial Stormwater General Permit issued pursuant to the State
 267 Water Control Law (§ 62.1-44.2 et seq.), may acquire, use, and transfer credits for compliance with any
 268 waste load allocations established as effluent limitations in a Virginia Pollutant Discharge Elimination
 269 System (VPDES) permit. Such method of compliance may be approved by the State Water Control Board
 270 following review of a compliance plan submitted by the permittee that includes the use of nutrient
 271 credits.

272 E. Public notice of each compliance plan submitted for approval pursuant to this section shall be
 273 given by the Department or by the State Water Control Board, as applicable.

274 F. This section shall not be construed to limit or otherwise affect the authority of the Soil and Water
 275 Conservation Board or the State Water Control Board, as applicable, to establish and enforce more
 276 stringent water quality-based effluent limitations for total nitrogen or total phosphorus in permits where
 277 those limitations are necessary to protect local water quality. The exchange or acquisition of credits
 278 pursuant to this article shall not affect any requirement to comply with such local water quality-based
 279 limitations.

280 § 10.1-603.15:4. Enforcement and penalties.

281 A. Transfer of nutrient credits by an operator of a nutrient credit generating facility may be
 282 suspended by the Department until such time as the operator comes into compliance with this article
 283 and attendant regulations.

284 B. Operators of a nutrient credit generating facility found in violation of any requirement of this
 285 article or attendant regulations shall be subject to a civil penalty. The civil penalty for any one violation
 286 shall not be more than \$10,000.

287 § 10.1-603.15:5. Appeals.

288 Any person applying to establish a nutrient credit generating facility or an operator of a nutrient
 289 credit generating facility aggrieved by any action of the Department taken in accordance with this
 290 section, or by inaction of the Department, shall have the right to review in accordance with the
 291 provisions of the Administrative Process Act (§ 2.2-4000 et seq.).

292 § 62.1-44.19:13. Definitions.

293 As used in this article, unless the context requires a different meaning:

294 "Annual mass load of total nitrogen" (expressed in pounds per year) means the daily total nitrogen
 295 concentration (expressed as mg/L to the nearest 0.01 mg/L) multiplied by the flow volume of effluent
 296 discharged during the 24-hour period (expressed as MGD to the nearest 0.01 MGD), multiplied by 8.34
 297 and rounded to the nearest whole number to convert to pounds per day (lbs/day) units, then totaled for
 298 the calendar month to convert to pounds per month (lbs/mo) units, and then totaled for the calendar year
 299 to convert to pounds per year (lbs/yr) units.

300 "Annual mass load of total phosphorus" (expressed in pounds per year) means the daily total
 301 phosphorus concentration (expressed as mg/L to the nearest 0.01mg/L) multiplied by the flow volume of
 302 effluent discharged during the 24-hour period (expressed as MGD to the nearest 0.01 MGD) multiplied
 303 by 8.34 and rounded to the nearest whole number to convert to pounds per day (lbs/day) units, then
 304 totaled for the calendar month to convert to pounds per month (lbs/mo) units, and then totaled for the
 305 calendar year to convert to pounds per year (lbs/yr) units.

306 "Association" means the Virginia Nutrient Credit Exchange Association authorized by this article.

307 "Attenuation" means the rate at which nutrients are reduced through natural processes during
308 transport in water.

309 "Biological nutrient removal technology" means (i) technology that will achieve an annual average
310 total nitrogen effluent concentration of eight milligrams per liter and an annual average total phosphorus
311 effluent concentration of one milligram per liter, or (ii) equivalent reductions in loads of total nitrogen
312 and total phosphorus through the recycle or reuse of wastewater as determined by the Department.

313 "Delivered total nitrogen load" means the discharged mass load of total nitrogen from a point source
314 that is adjusted by the delivery factor for that point source.

315 "Delivered total phosphorus load" means the discharged mass load of total phosphorus from a point
316 source that is adjusted by the delivery factor for that point source.

317 "Delivery factor" means an estimate of the number of pounds of total nitrogen or total phosphorus
318 delivered to tidal waters for every pound discharged from a permitted facility, as determined by the
319 specific geographic location of the permitted facility, to account for attenuation that occurs during
320 riverine transport between the permitted facility and tidal waters. Delivery factors shall be calculated
321 using the Chesapeake Bay Program watershed model.

322 "Department" means the Department of Environmental Quality.

323 "Equivalent load" means 2,300 pounds per year of total nitrogen and 300 pounds per year of total
324 phosphorus at a flow volume of 40,000 gallons per day; 5,700 pounds per year of total nitrogen and 760
325 pounds per year of total phosphorus at a flow volume of 100,000 gallons per day; and 28,500 pounds
326 per year of total nitrogen and 3,800 pounds per year of total phosphorus at a flow volume of 500,000
327 gallons per day.

328 "Facility" means a point source discharging or proposing to discharge total nitrogen or total
329 phosphorus to the Chesapeake Bay or its tributaries. This term does not include confined animal feeding
330 operations, discharges of stormwater, return flows from irrigated agriculture, or vessels.

331 "General permit" means the general permit authorized by this article.

332 "Permitted facility" means a facility authorized by the general permit to discharge total nitrogen or
333 total phosphorus. For the sole purpose of generating point source nitrogen credits or point source
334 phosphorus credits, "permitted facility" shall also mean the Blue Plains wastewater treatment facility
335 operated by the District of Columbia Water and Sewer Authority.

336 "Permittee" means a person authorized by the general permit to discharge total nitrogen or total
337 phosphorus.

338 "Point source nitrogen credit" means the difference between (i) the waste load allocation for a
339 permitted facility specified as an annual mass load of total nitrogen, and (ii) the monitored annual mass
340 load of total nitrogen discharged by that facility, where clause (ii) is less than clause (i), and where the
341 difference is adjusted by the applicable delivery factor and expressed as pounds per year of delivered
342 total nitrogen load.

343 "Point source phosphorus credit" means the difference between (i) the waste load allocation for a
344 permitted facility specified as an annual mass load of total phosphorus, and (ii) the monitored annual
345 mass load of total phosphorus discharged by that facility, where clause (ii) is less than clause (i), and
346 where the difference is adjusted by the applicable delivery factor and expressed as pounds per year of
347 delivered total phosphorus load.

348 "State-of-the-art nutrient removal technology" means (i) technology that will achieve an annual
349 average total nitrogen effluent concentration of three milligrams per liter and an annual average total
350 phosphorus effluent concentration of 0.3 milligrams per liter, or (ii) equivalent load reductions in total
351 nitrogen and total phosphorus through recycle or reuse of wastewater as determined by the Department.

352 "Tributaries" means those river basins for which separate tributary strategies were prepared pursuant
353 to § 2.2-218 and includes the Potomac, Rappahannock, York, and James River Basins, and the Eastern
354 Coastal Basin, which encompasses the creeks and rivers of the Eastern Shore of Virginia that are west
355 of Route 13 and drain into the Chesapeake Bay.

356 "Waste load allocation" means (i) the water quality-based annual mass load of total nitrogen or
357 annual mass load of total phosphorus allocated to individual facilities pursuant to the Water Quality
358 Management Planning Regulation (9 VAC 25-720) or its successor, *or permitted capacity in the case of*
359 *nonsignificant dischargers*; (ii) the water quality-based annual mass load of total nitrogen or annual
360 mass load of total phosphorus acquired pursuant to § 62.1-44.19:15 for new or expanded facilities; or
361 (iii) applicable total nitrogen or total phosphorus *waste load allocations under the Chesapeake Bay* total
362 maximum daily loads (*TMDLs*) to restore or protect the water quality and beneficial uses of the
363 Chesapeake Bay or its tidal tributaries.

364 § 62.1-44.19:15. New or expanded facilities.

365 A. An owner or operator of a new or expanded facility shall comply with the applicable requirements
366 of this section as a condition of the facility's coverage under the general permit.

367 1. An owner or operator of a facility authorized by a Virginia Pollutant Discharge Elimination

368 System permit first issued before July 1, 2005, that expands his facility to discharge 100,000 gallons or
 369 more per day, or an equivalent load directly into tidal waters, or 500,000 gallons or more per day, or an
 370 equivalent load, directly into nontidal waters shall demonstrate to the Department that he has acquired
 371 waste load allocations sufficient to offset any increase in his delivered total nitrogen and delivered total
 372 phosphorus loads resulting from any expansion beyond his waste load allocations or permitted design
 373 capacity as of July 1, 2005, and will install state-of-the-art nutrient removal technology at the time of
 374 the expansion.

375 2. An owner or operator of a facility authorized by a Virginia Pollutant Discharge Elimination
 376 System permit first issued before July 1, 2005, that expands his facility to discharge 100,000 gallons or
 377 more per day up to and including 499,999 gallons per day, or an equivalent load, directly into nontidal
 378 waters, shall demonstrate to the Department that he has acquired waste load allocations sufficient to
 379 offset any increase in his delivered total nitrogen and delivered total phosphorus loads resulting from
 380 any expansion beyond his permitted capacity as of July 1, 2005, and will install, at a minimum,
 381 biological nutrient removal technology at the time of the expansion.

382 3. An owner or operator of a facility authorized by a Virginia Pollutant Discharge Elimination
 383 System permit first issued before July 1, 2005, that expands his facility to discharge 40,000 gallons or
 384 more per day up to and including 99,999 gallons per day, or an equivalent load, directly into tidal or
 385 nontidal waters, shall demonstrate to the Department that he has acquired waste load allocations
 386 sufficient to offset any increase in his delivered total nitrogen and delivered total phosphorus loads
 387 resulting from any expansion beyond his permitted capacity as of July 1, 2005.

388 4. An owner or operator of a facility authorized by a Virginia Pollutant Discharge Elimination
 389 System permit first issued on or after July 1, 2005, to discharge 40,000 gallons or more per day, or an
 390 equivalent load, shall demonstrate to the Department that he has acquired waste load allocations
 391 sufficient to offset his delivered total nitrogen and delivered total phosphorus loads, and will install (i) at
 392 a minimum, biological nutrient removal technology at any facility authorized to discharge up to and
 393 including 99,999 gallons per day, or an equivalent load, directly into tidal and nontidal waters, or up to
 394 and including 499,999 gallons per day, or an equivalent load, to nontidal waters; and (ii) state-of-the-art
 395 nutrient removal technology at any facility authorized to discharge 100,000 gallons or more per day, or
 396 an equivalent load, directly into tidal waters, or 500,000 gallons or more per day, or an equivalent load,
 397 directly into nontidal waters.

398 5. An owner or operator of a facility treating domestic sewage authorized by a Virginia Pollutant
 399 Discharge Elimination System permit with a discharge greater than 1,000 gallons per day up to and
 400 including 39,999 gallons per day that has not commenced the discharge of pollutants prior to January 1,
 401 2011, shall demonstrate to the Department that he has acquired waste load allocations sufficient to offset
 402 his delivered total nitrogen and delivered total phosphorus loads prior to commencing the discharge,
 403 except when the facility is for short-term temporary use only or when treatment of domestic sewage is
 404 not the primary purpose of the facility.

405 B. Waste load allocations required by this section to offset new or increased delivered total nitrogen
 406 and delivered total phosphorus loads shall be acquired in accordance with this subsection.

407 1. Such allocations may be acquired from one or a combination of the following:

408 a. Acquisition of all or a portion of the waste load allocations *or point source nitrogen or point*
 409 *source phosphorus credits* from one or more permitted facilities in the same tributary;

410 b. Acquisition of ~~nonpoint source load allocations through the use of best management practices~~
 411 ~~acquired through a public or private entity acting on behalf of the land owner credits certified by the~~
 412 ~~Board pursuant to § 62.1-44.19:20 or certified by the Soil and Water Conservation Board pursuant to~~
 413 ~~§ 10.1-603.15:2. Such best management practices shall achieve reductions beyond those already required~~
 414 ~~by or funded under federal or state law, or the Virginia tributaries strategies plans Chesapeake Bay~~
 415 ~~TMDL Watershed Implementation Plan, and shall be installed in the same tributary in which the new or~~
 416 ~~expanded facility is located and included as conditions of the facility's individual Virginia Pollutant~~
 417 ~~Discharge Elimination System permit;~~

418 c. Acquisition of allocations purchased through the Nutrient Offset Fund established pursuant to
 419 § 10.1-2128.2; or

420 d. Acquisition of allocations through such other means as may be approved by the Department on a
 421 case-by-case basis.

422 2. *Such allocations or credits shall be provided for a minimum period of five years with each*
 423 *registration under the general permit. This subdivision shall not preclude the Board from adopting*
 424 *longer-term or permanent allocation requirements by regulation.*

425 3. The Board shall give priority to allocations *or credits* acquired in accordance with subdivisions 1
 426 a, 1 b, and 1 d. The Board shall approve allocations acquired in accordance with subdivision 1 d only
 427 after the owner or operator has demonstrated that he has made a good faith effort to acquire sufficient
 428 allocations in accordance with subdivisions 1 a, 1 b, and 1 d and that such allocations are not

429 reasonably available taking into account timing, cost, and other relevant factors.

430 3. 4. Notwithstanding the priority provisions in subdivision 2, the Board may grant a waste load
431 allocation in accordance with subdivision 1 d to an owner or operator of a facility authorized by a
432 Virginia Pollution Abatement permit to land apply domestic sewage if (i) the Virginia Pollution
433 Abatement permit was issued before July 1, 2005; (ii) the waste load allocation does not exceed such
434 facility's permitted design capacity as of July 1, 2005; (iii) the waste treated by the existing facility is
435 going to be treated and discharged pursuant to a Virginia Pollutant Discharge Elimination System permit
436 for a new discharge; and (iv) the owner or operator installs state-of-the-art nutrient removal technology
437 at such facility. Such facilities cannot generate credits or waste load allocations, based upon the removal
438 of land application sites, that can be acquired by other permitted facilities to meet the requirements of
439 this article.

440 C. Until such time as the Director finds that no allocations are reasonably available in an individual
441 tributary, the general permit shall provide for the acquisition of allocations through payments into the
442 Nutrient Offset Fund established in § 10.1-2128.2. Such payments shall be promptly applied by the
443 Department to achieve equivalent point or nonpoint source reductions in the same tributary beyond those
444 reductions already required by or funded under federal or state law or the Virginia tributaries strategies
445 plans *Chesapeake Bay TMDL Watershed Implementation Plan*. The general permit shall base the cost of
446 each pound of allocation on (i) the estimated cost of achieving a reduction of one pound of nitrogen or
447 phosphorus at the facility that is securing the allocation, or comparable facility, for each pound of
448 allocation acquired; or (ii) the average cost of reducing two pounds of nitrogen or phosphorus from
449 nonpoint sources in the same tributary for each pound of allocation acquired, whichever is higher. Upon
450 each reissuance of the general permit, the Board may adjust the cost of each pound of allocation based
451 on current costs and cost estimates.

452 D. The acquisition of nutrient allocations, *or* credits, ~~or offsets~~ from animal waste-to-energy or
453 animal waste reduction facilities, or the acquisition of such nutrient allocations, *or* credits, ~~or offsets~~
454 from entities acting on behalf of such facilities pursuant to subdivision B 1, shall be considered point
455 source allocations, *or* credits, ~~or offsets~~ for all nutrient trading purposes and shall not be subject to a
456 ~~two-for-one~~ any otherwise applicable nonpoint source trading ratio if the best management practice
457 being used to generate such nutrient allocations, *or* credits, ~~or offsets~~ is a point source nutrient removal
458 technology. Point source nutrient removal technology shall include animal waste gasification in which
459 lab analysis of the animal waste reveals the concentration of nutrients in the animal waste being fed into
460 the gasifier, and the fate of the nutrients during the animal waste gasification process, is known and
461 documented using studies such as air emissions tests and ash analyses.

462 § 62.1-44.19:18. Nutrient allocation compliance and reporting.

463 A. Each permitted facility shall be in compliance with its individual waste load allocations if: (i) its
464 annual mass load is less than the applicable waste load allocation assigned to the facility in the general
465 permit; (ii) the permitted facility acquires sufficient point source nitrogen or phosphorus credits in
466 accordance with subdivision A 1; or (iii) in the event it is unable to meet the individual waste load
467 allocation pursuant to clauses (i) or (ii), the permitted facility acquires sufficient nitrogen or phosphorus
468 credits through payments made in accordance with subdivision A 2; provided, however, that the
469 acquisition of nitrogen or phosphorus credits pursuant to this section shall not alter or otherwise affect
470 the individual waste load allocations for each permitted facility.

471 1. A permittee may acquire point source nitrogen or phosphorus credits from one or more permitted
472 facilities only if (i) the credits are generated and applied to a compliance obligation in the same calendar
473 year, (ii) the credits are generated by one or more permitted facilities in the same tributary, except that
474 permitted facilities in the Eastern Shore basin may also acquire credits from permitted facilities in the
475 Potomac and Rappahannock tributaries, (iii) the credits are acquired no later than June 1 immediately
476 following the calendar year in which the credits are applied, and (iv) no later than June 1 immediately
477 following the calendar year in which the credits are applied, the permittee certifies on a form supplied
478 by the Department that he has acquired sufficient credits to satisfy his compliance obligations.

479 2. A permittee may acquire nitrogen or phosphorus credits through payments made into the Nutrient
480 Offset Fund established in § 10.1-2128.2 only if, no later than June 1 immediately following the
481 calendar year in which the credits are applied, the permittee certifies on a form supplied by the
482 Department that he has diligently sought, but has been unable to acquire, sufficient credits to satisfy his
483 compliance obligations through the acquisition of point source nitrogen or phosphorus credits with other
484 permitted facilities in the same tributary, and that he has acquired sufficient credits to satisfy his
485 compliance obligations through one or more payments made in accordance with the terms of the general
486 permit.

487 B. Until such time as the Director finds that no credits are reasonably available in an individual
488 tributary, the general permit shall provide for the acquisition of nitrogen and phosphorus credits through
489 payments into the Nutrient Offset Fund in accordance with subdivision A 2. Such payments shall be
490 promptly applied to achieve equivalent point or nonpoint source reductions in the same tributary beyond

491 those reductions already required by or funded under federal or state law, or the Virginia tributaries
 492 strategies plans *Chesapeake Bay TMDL Watershed Implementation Plan*. The general permit shall base
 493 the cost of each nitrogen or phosphorus credit on the average cost of reducing one pound of nitrogen or
 494 phosphorus from Virginia publicly owned wastewater treatment facilities for each credit acquired. Upon
 495 each reissuance of the general permit, the Board may adjust the cost of each nitrogen and phosphorus
 496 credit based on (i) the current average cost of reducing a pound of nitrogen or phosphorus from Virginia
 497 publicly owned wastewater treatment facilities for each credit acquired and (ii) any additional incentives
 498 reasonably necessary to ensure that there is timely and continuing progress toward attaining and
 499 maintaining each tributary's combined waste load allocation.

500 C. On or before February 1, annually, each permittee shall either individually or through the
 501 Association file a *discharge monitoring* report with the Department. The report shall identify (i)
 502 identifying the annual mass load of total nitrogen and the annual mass load of total phosphorus
 503 discharged by each permitted facility during the previous calendar year; (ii) the delivered total nitrogen
 504 load and delivered total phosphorus load discharged by each permitted facility during the previous year;
 505 and (iii) the number of total nitrogen and total phosphorus credits for the previous calendar year to be
 506 purchased or sold by the permittee. The report shall contain the certification required by federal and
 507 state law and be signed by each permittee for each of the permittee's facilities covered by the general
 508 permit.

509 D. On or before April 1, annually, the Department shall prepare a report containing the annual mass
 510 load of total nitrogen and annual mass load of total phosphorus discharged by each permitted facility,
 511 the number of point source nitrogen and phosphorus credits for the previous calendar year for sale or
 512 purchase generated or required by each such facility, and to the extent there are insufficient point
 513 source credits available for exchange to provide for full compliance by every permittee, the number of
 514 credits to be purchased pursuant to this section. Upon completion of the report, the Department shall
 515 promptly publish notice of the report and make the report available to any person requesting it.

516 E. On or before July 1, annually, the Department shall publish notice of all nitrogen and phosphorus
 517 credit exchanges and purchases for the previous calendar year and make all documents relating to the
 518 exchanges and purchases available to any person requesting them.

519 § 62.1-44.19:20. *Nutrient credit certification.*

520 A. *The Board may adopt regulations for the purpose of establishing procedures for the certification*
 521 *of nutrient credits other than (i) point source nitrogen or point source phosphorus credits generated by*
 522 *point sources covered by the general permit issued pursuant to § 62.1-44.19:14 and (ii) nutrient credits*
 523 *certified by the Soil and Water Conservation Board and the Department of Conservation and Recreation*
 524 *pursuant to Article 1.1:1 (§ 10.1-603.15:1 et seq.) of Chapter 6 of Title 10.1. During the promulgation*
 525 *of the regulations, the Board shall consult with the Department of Conservation and Recreation to avoid*
 526 *duplication and to promote consistency where appropriate.*

527 B. *Regulations adopted pursuant to this section shall:*

528 1. *Establish procedures for the certification and registration of credits, including:*

529 a. *Certifying credits that may be generated from effective nutrient controls or removal practices,*
 530 *including activities associated with the types of facilities or practices historically regulated by the*
 531 *Board, such as water withdrawal and treatment and wastewater collection, treatment, and beneficial*
 532 *reuse; and*

533 b. *Establishing a timely and efficient certification process including application requirements, a*
 534 *reasonable application fee schedule not to exceed \$10,000 per application, and review and approval*
 535 *procedures;*

536 2. *Establish credit calculation procedures for proposed credit-generating practices, including the*
 537 *determination of:*

538 a. *Baselines in accordance with any applicable provisions of the Virginia Chesapeake Bay TMDL*
 539 *Watershed Implementation Plan or other approved TMDLs; and*

540 b. *Credit quantities using the best available scientific and technical information;*

541 3. *Provide certification of credits on an appropriate temporal basis, such as annual, term of years,*
 542 *or perpetual, depending on the nature of the credit-generating practice. A credit shall be certified for a*
 543 *term of no less than 12 months;*

544 4. *Establish operation and maintenance requirements and associated financial assurance*
 545 *requirements to include alternatives such as letters of credit, escrows, surety bonds, insurance, and*
 546 *where the credits are used or generated by a locality, authority, utility, sanitation district, or permittee*
 547 *operating an MS4 or a point source permitted under this article, its existing tax or rate authority;*

548 5. *Establish appropriate reporting requirements;*

549 6. *Provide for the ability of the Department to inspect or audit for compliance with the requirements*
 550 *of such regulations;*

551 7. *Provide that the option to acquire nutrient credits for compliance purposes shall not eliminate any*

552 *requirement to comply with local water quality requirements; and*

553 *8. Establish such other requirements as the Board deems necessary and appropriate.*

554 *C. Prior to the adoption of such regulations, the Board shall certify credits that may be generated*
555 *from effective nutrient controls or removal practices, including activities associated with the types of*
556 *facilities or practices historically regulated by the Board, such as water withdrawal and treatment and*
557 *wastewater collection, treatment, and beneficial reuse, on a case-by-case basis using the best available*
558 *scientific and technical information.*

559 **2. That nutrient credits from stormwater nonpoint nutrient credit generating facilities in receipt**
560 **of a Nonpoint Nutrient Offset Authorization for Transfer letter from the Department of**
561 **Environmental Quality prior to July 1, 2012, shall be considered certified nutrient credits and**
562 **shall not be subject to further certification requirements or to the credit retirement requirement**
563 **under subdivision B 8 of § 10.1-603.15:2 as added by this act. However, such facilities shall be**
564 **subject to the other provisions of Article 1.1:1 (§ 10.1-603.15:1 et seq.) as added by this act,**
565 **including registration, inspection, reporting, and enforcement.**

566 **3. That by July 1, 2013, the State Water Control Board shall reevaluate its trading ratio for**
567 **nutrient allocation acquisition pursuant to subdivision B 1 b of § 62.1-44.19:15 of the Code of**
568 **Virginia, giving full consideration to similar trading ratios established by § 10.1-603.8:1 of the**
569 **Code of Virginia, § 10.1-603.15:2 as added by this act, and trading programs in other Chesapeake**
570 **Bay watershed states. The Board shall establish an advisory group of interested stakeholders for**
571 **the purpose of receiving recommendations during the reevaluation regarding an appropriate ratio.**
572 **If warranted based on the outcome of the reevaluation, the Board shall adopt a revised trading**
573 **ratio for purposes of subdivision B 1 b of § 62.1-44.19:15 as soon as practicable following the**
574 **completion of the reevaluation.**

575 **4. That until the effective date of the regulations to be adopted pursuant to § 10.1-603.15:2 as**
576 **added by this act, the State Water Control Board shall continue to certify nutrient credits from**
577 **the use of nonpoint source best management practices pursuant to subdivision B 1 b of**
578 **§ 62.1-44.19:15 of the Code of Virginia.**