

HOUSE No. 869

The Commonwealth of Massachusetts

PRESENTED BY:

Steven Owens and Jennifer Balinsky Armini

To the Honorable Senate and House of Representatives of the Commonwealth of Massachusetts in General Court assembled:

The undersigned legislators and/or citizens respectfully petition for the adoption of the accompanying bill:

An Act establishing the municipal reforestation program.

PETITION OF:

| NAME: | DISTRICT/ADDRESS: | DATE ADDED: |
|---------------------------------|-----------------------------------|------------------|
| <i>Steven Owens</i> | <i>29th Middlesex</i> | <i>1/11/2023</i> |
| <i>Jennifer Balinsky Armini</i> | <i>8th Essex</i> | <i>1/19/2023</i> |
| <i>Joan Meschino</i> | <i>3rd Plymouth</i> | <i>1/19/2023</i> |
| <i>Michelle L. Ciccolo</i> | <i>15th Middlesex</i> | <i>1/25/2023</i> |
| <i>James K. Hawkins</i> | <i>2nd Bristol</i> | <i>1/27/2023</i> |
| <i>Lindsay N. Sabadosa</i> | <i>1st Hampshire</i> | <i>2/1/2023</i> |
| <i>Patricia A. Duffy</i> | <i>5th Hampden</i> | <i>2/2/2023</i> |
| <i>David M. Rogers</i> | <i>24th Middlesex</i> | <i>2/3/2023</i> |
| <i>Carol A. Doherty</i> | <i>3rd Bristol</i> | <i>2/6/2023</i> |
| <i>Rodney M. Elliott</i> | <i>16th Middlesex</i> | <i>2/7/2023</i> |
| <i>James C. Arena-DeRosa</i> | <i>8th Middlesex</i> | <i>2/8/2023</i> |
| <i>Patrick M. O'Connor</i> | <i>First Plymouth and Norfolk</i> | <i>2/9/2023</i> |
| <i>Paul McMurtry</i> | <i>11th Norfolk</i> | <i>2/15/2023</i> |
| <i>Brian W. Murray</i> | <i>10th Worcester</i> | <i>2/17/2023</i> |
| <i>Michael P. Kushmerek</i> | <i>3rd Worcester</i> | <i>3/20/2023</i> |
| <i>Margaret R. Scarsdale</i> | <i>1st Middlesex</i> | <i>3/22/2023</i> |
| <i>Erika Uytterhoeven</i> | <i>27th Middlesex</i> | <i>4/5/2023</i> |
| <i>Samantha Montaño</i> | <i>15th Suffolk</i> | <i>5/4/2023</i> |

| | | |
|---------------------------------|----------------------------------|-------------------|
| <i>Danillo A. Sena</i> | <i>37th Middlesex</i> | <i>5/5/2023</i> |
| <i>Jeffrey Rosario Turco</i> | <i>19th Suffolk</i> | <i>5/8/2023</i> |
| <i>Ruth B. Balsler</i> | <i>12th Middlesex</i> | <i>5/8/2023</i> |
| <i>Adrian C. Madaro</i> | <i>1st Suffolk</i> | <i>5/17/2023</i> |
| <i>Jack Patrick Lewis</i> | <i>7th Middlesex</i> | <i>5/25/2023</i> |
| <i>Tommy Vitolo</i> | <i>15th Norfolk</i> | <i>6/15/2023</i> |
| <i>Bruce E. Tarr</i> | <i>First Essex and Middlesex</i> | <i>7/20/2023</i> |
| <i>Sean Garballey</i> | <i>23rd Middlesex</i> | <i>10/10/2023</i> |
| <i>Carmine Lawrence Gentile</i> | <i>13th Middlesex</i> | <i>10/12/2023</i> |
| <i>Kay Khan</i> | <i>11th Middlesex</i> | <i>1/26/2024</i> |
| <i>Kristin E. Kassner</i> | <i>2nd Essex</i> | <i>2/1/2024</i> |

HOUSE No. 869

By Representatives Owens of Watertown and Armini of Marblehead, a petition (accompanied by bill, House, No. 869) of Steven Owens, Jennifer Balinsky Armini and others for legislation to establish a municipal reforestation program within the Executive Office of Energy and Environmental Affairs. Environment and Natural Resources.

The Commonwealth of Massachusetts

**In the One Hundred and Ninety-Third General Court
(2023-2024)**

An Act establishing the municipal reforestation program.

Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, as follows:

1 SECTION 1. Chapter 21A of the General Laws, as appearing in the 2020 Official
2 Edition, is hereby amended by adding the following section:-

3 Section 28. (a) There shall be established an advisory council under the executive office
4 of energy and environmental affairs, known as the urban forest advisory council. Members shall
5 be appointed by the secretary from public, private, and nongovernmental organizations with
6 expertise in urban forestry, arboriculture, landscape architecture, green infrastructure, demand-
7 side energy efficiency management, and climate change resilience and mitigation. Such members
8 may include representatives from the following: (i) municipal arboriculture or tree warden
9 association; (ii) arboriculture or nursery industry association; (iii) urban landscape architecture
10 association; (iv) demand-side energy efficiency management; (v) green infrastructure and
11 climate change resilience and mitigation; (vi) nonprofit organization with experience in planting
12 trees; (vii) environmental organization with expertise in energy conservation, energy efficiency,

13 or green infrastructure building practices; (viii) local affordable housing or community
14 development organizations; (ix) workforce development programs; (x) municipal departments of
15 public works responsible for roads, water mains, sewers, and utility infrastructure; (xi)
16 researchers with expertise in data collection related to natural resources, energy management,
17 and climate change indicators; (xii) gas company infrastructure; (xiii) electric company
18 infrastructure; (xiv) nonprofit transportation organizations with expertise in clean transportation;
19 (xv) nonprofit organizations with expertise in municipal finance; (xvi) the Metropolitan Area
20 Planning Council, other regional planning agencies, and the Massachusetts Municipal
21 Association; (xvii) small business associations; (xviii) organized labor associations; (ix)
22 municipal tree committees; (xx) officials from the department of conservation and recreation, the
23 department of environmental protection, and the department of transportation; (xxi) agricultural
24 high schools; (xxii) federally recognized and state acknowledged tribes within the
25 commonwealth; and (xxiii) the University of Massachusetts Amherst Center for Agriculture,
26 Food, and the Environment.

27 (b) (1) The secretary shall convene the council to provide advice and technical assistance
28 to participating municipalities, tree-planting organizations, municipal arborists, state foresters,
29 gas and electric companies, and the department of transportation to ensure sufficient technical
30 expertise and oversight in the implementation of the municipal reforestation program, pursuant
31 to chapter 21P. The council shall use science-based guidelines to determine urban tree canopy
32 cover, for siting trees and to determine optimum native tree species to ensure adequate root
33 development and to achieve maximum reduction in consumer energy demand and removal of
34 greenhouse gas emissions while causing minimal disruption to public infrastructure. The council
35 shall develop guidelines to the secretary for approving plans submitted by municipalities

36 pursuant to chapter 21P, and shall advise the secretary on the merits of such plans, including
37 recommendations for improvement and approval. The council shall develop and disseminate
38 model tree retention ordinances and by-laws and other model ordinances and by-laws that result
39 in the preservation and expansion of tree canopy and make them available to public on the
40 website of the executive office of energy and environmental affairs. The secretary shall provide
41 such resources, expertise, and administrative support as necessary for the advisory council to
42 carry out its duties and responsibilities.

43 (2) The technical advice provided by the advisory council shall include, but is not limited
44 to: (i) approved tree lists, emphasizing the use of hardy, noninvasive and native tree species that
45 can thrive in the urban environment and the changing climate, and tree species that are favored
46 by pollinators and birds; (ii) specifications for planting, installation, and maintenance, including
47 guidelines for planting trees, size and species of trees, soil volume and supplements, and
48 minimum distances between newly planted trees and existing infrastructure, including utility
49 infrastructure; (iii) instructions for sufficient watering and for long-term maintenance to be
50 provided by recipients of trees to ensure survival of such trees; (iv) technical planning assistance
51 to municipalities and tree-planting organizations; (v) procedures for inspection and quality
52 control, including inspection for pests and diseases; (vi) procedures for monitoring and collecting
53 data on tree health and survival; (vii) procedures for collecting data on energy conservation and
54 climate mitigation benefits from the municipal reforestation program; (viii) recommendations for
55 workforce development and job training programs on planting, maintenance, and preservation of
56 urban forests, including collaboration with secondary and higher education vocational programs;
57 and (ix) any other technical advice as required by the secretary, in consultation with the

58 department of environmental protection, the department of conservation and recreation, the
59 department of public utilities, and the department of transportation.

60 (c) The secretary and the urban forest advisory council, in consultation with the
61 department of environmental protection shall develop quantitative and qualitative measures for
62 valuing the contribution that an urban tree canopy cover makes to mitigate the effects of climate
63 change, including removal of greenhouse gas emissions, energy conservation, reduction of heat
64 island effect, storm water management, drought mitigation, air quality improvement, carbon
65 sequestration, and benefits to human health, using the best available scientific metrics and
66 technology. Such measures may be updated as necessary to reflect current scientific research.

67 SECTION 2. The General Laws are hereby amended by inserting after chapter 21O the
68 following chapter:-

69 CHAPTER 21P

70 MUNICIPAL REFORESTATION PROGRAM

71 Section 1. (a) As used in this chapter, the following words, unless the context clearly
72 requires otherwise, shall have the following meanings:-

73 “Participating municipality”, each municipality in the commonwealth except those with
74 both a population of fewer than 10,000 residents and tree canopy cover of at least 60 percent;
75 provided, that a municipality with both a population of fewer than 10,000 residents and tree
76 canopy cover of at least 60 percent shall have the option to become a participating municipality
77 by a majority vote of the city or town council, by a majority vote of the board of selectmen or by
78 resolution of its legislative body, as may be appropriate; and provided further, that a federally

79 recognized or state acknowledged tribe within the commonwealth shall have the option to be
80 considered a participating municipality by a majority vote of its tribal council or by resolution of
81 its legislative body, as may be appropriate.

82 “Plan”, the municipal reforestation plan.

83 “Program”, the municipal reforestation program.

84 “Secretary”, the secretary of energy and environmental affairs.

85 “Urban tree canopy cover”, the surface area of the land covered by the combined leaves,
86 branches, and trunks of all standing trees in a given area when viewed from above.

87 (b) (1) The secretary, in consultation with the secretary of transportation, shall establish a
88 municipal reforestation program to allow participating municipalities access to funding and
89 technical assistance to plant and replace trees as well as maintain and preserve healthy trees
90 within the borders of their communities.

91 (2) The purpose and goals of the program include, but are not limited to: (i) removing
92 carbon dioxide emissions from the transportation sector within the municipalities of the
93 commonwealth through carbon sequestration provided by trees; (ii) improving public health by
94 mitigating harmful effects of excessive heat and cold; (iii) improving air quality by reducing
95 levels of particulate pollution in neighborhoods with low urban tree canopy cover; (iv)
96 strengthening climate resilience by strategically incorporating trees into urban green
97 infrastructure projects; (v) promoting community, economic, and workforce development by
98 incorporating green infrastructure into municipal transportation infrastructure and community
99 planning; (vi) recognizing trees as a key state-wide investment in transportation infrastructure

100 and workforce development in order to meet the mandates pursuant to chapter 21N; (vii)
101 prioritizing the inclusion of green, sustainable infrastructure in the development of transportation
102 infrastructure; (viii) prioritizing the expansion and preservation of the urban tree canopy cover in
103 environmental justice neighborhoods, including expanding parks and open spaces; (ix) providing
104 equitable access to funding for rural and urban neighborhoods for opportunities to develop green
105 infrastructure; (x) maintaining the health of newly planted and existing trees in the urban
106 environment by providing funding for maintenance and for inspection for pests and diseases; (xi)
107 prioritizing the expansion and preservation of the urban tree canopy cover in municipalities to
108 achieve a tree canopy cover of at least 60 percent, where feasible.

109 Section 2. (a) The urban forest advisory council, pursuant to section 28 of chapter 21A, in
110 consultation with the secretary of energy and environmental affairs, the secretary of
111 transportation, and the secretary of administration and finance, shall establish a formula for the
112 disbursement of funding for the program to each participating municipality in the
113 commonwealth. Variables and weighted proportions of the formula shall include, but not be
114 limited to: (i) the total number of road mileage within the participating municipality; (ii) the total
115 population of the participating municipality; (iii) the total number of employed individuals
116 within the borders of the participating municipality; (iv) the number of environmental justice
117 criteria the participating municipality meets, as determined by the executive office of energy and
118 environmental affairs' environmental justice policy; and (v) the percentage of urban tree canopy
119 cover with a greater weighted calculation provided for neighborhoods within a participating
120 municipality having a tree canopy cover of 20 percent or less.

121 (b) All costs incurred by the secretary and the participating municipalities for the
122 planning, implementation and maintenance of the program shall be covered by section 3 of this

123 act. Funds shall be annually distributed to each municipality, pursuant to said section 3, no later
124 than August 1st and shall take effect 3 years following enactment of this act.

125 (c) Each participating municipality shall report annually to the secretary on the status of
126 the plan and the projects that were completed within the fiscal year and the plans for the
127 following year.

128 Section 3. (a) (1) Each participating municipality shall develop a municipal reforestation
129 plan within 3 years following enactment of this of act, appropriate to the size and needs of the
130 municipality. In developing a plan, participating municipalities shall follow the guidelines
131 developed by the urban forest advisory council established under section 28 of chapter 21A and
132 any other guidelines as determined necessary by the secretary. Participating municipalities may
133 solicit the technical advice and assistance from the urban forest advisory council, the department
134 of transportation, the department of conservation and recreation, the department of
135 environmental protection, nonprofit tree-planting organizations, nonprofit transportation
136 organizations; provided, however that such technical advice and assistance is consistent with the
137 guidelines developed by the urban forest advisory council. The secretary shall make available
138 other resources as needed by a participating municipality to facilitate the development of its plan
139 at no additional cost to the participating municipality. The plan created by a participating
140 municipality shall be broken down into projects to be completed by the participating
141 municipality and shall follow the project completion prioritization requirements of this section.

142 (2) The plan shall include, but not be limited to: (i) an inventory of the participating
143 municipality's existing tree canopy cover, using established scientific protocols for determining
144 tree canopy cover, such as geographical information systems; (ii) an analysis to determine the

145 optimal sites for planting trees to achieve the goals the program, using established scientific
146 protocols for site selection; (iii) the current condition of the tree canopy cover of the
147 neighborhood where the projects will be located; (iv) how the tree species proposed to be planted
148 are suitable for the specific sites taking into account local environmental conditions; (v) the
149 expected benefits from expansion of the tree canopy cover on energy consumption, heat island
150 effect, wind reduction, storm water runoff, drought mitigation, and other consequences related to
151 climate change; (vi) the expected benefits from expansion of the tree canopy cover on public
152 health; (vii) plans to maintain and provide follow-up care following the planting of trees; (viii)
153 plans to engage community residents in the planting and maintenance of the trees, including
154 workforce development programs; (viiii) the relationship of the project to any municipal
155 vulnerability preparedness program; (x) plans to promote the preservation of existing tree
156 canopy; (xi) a timeline for completion for each project within the plan while ensuring equitable
157 project prioritization of projects for environmental justice neighborhoods when attainable; (xii)
158 certification that tree pits are free of methane leaking from gas pipeline infrastructure; and (xiii)
159 any other information as may be required by the secretary. Plans shall be submitted to the
160 secretary to be certified ensuring the plans meet the required criteria of this section.

161 (3) Trees planted under a certified plan may be planted in public rights of way, public
162 parks, and on private residential and commercial property, provided that priority for project
163 completion shall be given to: (i) sites in neighborhoods with low tree canopy cover with first
164 priority given to sites with less than 20 percent tree canopy cover; (ii) sites in neighborhoods
165 with levels of particulate pollutants above the levels determined by the department of
166 environmental protection and the department of public health to be hazardous to human health;
167 (iii) sites in environmental justice neighborhoods; (iv) neighborhoods that are deemed to be heat

168 islands; and (v) locations where passengers wait at public transit stations and bus stops and
169 designated cool corridors for walking and bicycling. Second priority shall be given to sites with
170 less than 40 percent tree canopy cover. Third priority shall be given to sites with less than 60
171 percent tree canopy cover and to sites with any other criteria determined by the secretary, in
172 consultation with the department of environmental protection, the department of conservation
173 and recreation, and the department of transportation. To achieve optimal tree canopy cover, trees
174 may be planted by a participating municipality on private residential and commercial property
175 using funds allocated under sections 2 and 3 of this act, provided, however that the cost of
176 maintenance for such trees shall be the responsibility of the owner of such property, through
177 written agreement between the owner of the property and the participating municipality as a
178 condition of such owner receiving the trees.

179 (4) Participating municipalities shall update their plans for recertification every 5 years.
180 In order to revise a certified plan prior to the next recertification, a participating municipality
181 shall submit the proposed revisions to the executive office of energy and environmental affairs
182 for approval and recertification by the secretary. The secretary may seek technical advice for
183 reviewing such proposed revisions from the secretary of transportation and the urban forest
184 advisory council established under section 28 of chapter 21A.

185 Section 4. (a) Beginning 3 years following the enactment of this act, each participating
186 municipality shall annually submit to the secretary for approval a summary of the projects to be
187 completed from the participating municipality's reforestation plan within the next fiscal year and
188 a plan for the next 4 fiscal years.

189 (b) The total costs of the projects shall include: (i) the cost of purchasing trees
190 appropriate for the selected sites, including trees purchased as part of a purchasing agreement
191 pursuant to subsection (c) of this section; (ii) the cost of planting trees; (iii) the cost of preparing
192 the sites where trees are to be planted; (iv) the cost of infrastructure to create adequate tree pits
193 and planting conditions, including but not limited to, water collection and water retention
194 technologies; (v) the cost of making reasonable modifications to adjoining infrastructure; (vi) the
195 cost of labor; (vii) the cost of community outreach and recruitment of volunteers, including any
196 stipends provided to volunteers who agree to care for public shade trees in their neighborhoods;
197 (viii) the cost of necessary machinery used to plant trees; (ix) the cost of maintaining trees
198 planted under the plan, including sufficient watering and monitoring of trees planted on public
199 rights of way, public parks, and other public property; (x) the cost for subcontractors to perform
200 work that the applicant demonstrates to be beyond its capacity to perform; (xi) reasonable
201 administrative costs incurred by a participating municipality in planning and implementing the
202 project and in follow-up maintenance of the trees; and (xii) other reasonable costs as determined
203 by the secretary. Upon the request of a participating municipality and where cost effective, the
204 department of conservation and recreation may provide oversight project management for a
205 project.

206 (c) Certified projects intending to use funding allocated under subsection (b) of section 2
207 of this chapter shall not exceed the participating municipality's total funding allocation for the
208 fiscal year.

209 (d) If a participating municipality submits projects for the fiscal year that exceed the
210 participating municipality's total funding allocation under subsection (b) of section 2 of this
211 chapter, the secretary may certify such projects if the participating municipality submits the

212 corresponding required financial forms, as determined by the secretary, indicating that the
213 participating municipality has the difference of the costs of the projects acquired through cash or
214 in-kind contributions from the participating municipality, individuals, nonprofit organizations,
215 corporations, or other entities.

216 (e) Funding from public or private sources as authorized by section 9 of chapter 21A may
217 be acquired by the secretary to finance projects to expand urban forests and the municipal
218 reforestation program. The secretary shall seek any federal funding that is available to support
219 urban forests and the municipal reforestation program and the urban forest advisory council shall
220 assist municipalities, nonprofit organizations, regional planning agencies, and other eligible
221 entities in identifying and applying for any federal funding that is available to support urban
222 forests and the municipal reforestation program.

223 (f) Participating municipalities, when feasible, shall prioritize purchasing trees that are
224 planted for projects financed under their municipal reforestation plans from nurseries located in
225 the commonwealth. A participating municipality may enter into a purchasing agreement with
226 another participating municipality, a regional group of participating municipalities, a regional
227 planning agency, or with the department of conservation and recreation to purchase in bulk trees
228 to be planted under their municipal reforestation plans and other tree planting programs under the
229 authority of the department of conservation and recreation; provided, however, that the trees
230 purchased through any agreement come at a reduced cost for all entities.

231 (g) A participating municipality may enter into an agreement with another participating
232 municipality, a regional group of participating municipalities, or a regional planning agency to
233 jointly develop and implement their municipal reforestation plans, including sharing personnel or

234 equipment or jointly contracting with another entity to perform work that the participating
235 municipalities demonstrate to be beyond their capacity to perform.

236 Section 5. The secretary shall report annually, no later than October 1, on the results
237 achieved by the municipal reforestation program to the governor and to the clerks of the house of
238 representatives and the senate, who shall forward such report to the president of the senate, the
239 speaker of the house of representatives, and the chairs of the house and senate committees on
240 ways and means.

241 Section 6. The secretary may promulgate such rules and regulations as are necessary to
242 administer this chapter.

243 SECTION 3. Chapter 29 of the General Laws, as appearing in the 2020 Official Edition,
244 is hereby amended by inserting after section 2QQQQQ the following section:-

245 Section 2RRRRR. There shall be established and set up on the books of the
246 commonwealth a separate fund, to be known as the Municipal Reforestation Trust Fund, to be
247 expended, without further appropriation, by the secretary of energy and environmental affairs for
248 the municipal reforestation program established in chapter 21P and the urban forest advisory
249 council established in section 28 of chapter 21A. The trust fund shall be credited with: (i) any
250 appropriations, bond proceeds or other monies authorized by the general court and specifically
251 designated to be credited thereto; (ii) funds from public and private sources and other gifts,
252 grants and donations; and (iii) any income derived from the investment of amounts credited to
253 the trust fund. All amounts credited to the trust fund shall be held in trust and used solely for
254 activities and expenditures consistent with the public purpose of the trust fund and the ordinary
255 and necessary expenses of administration and operation associated with the trust fund. All

256 available monies in the trust fund that are unexpended at the end of each fiscal year shall not
257 revert to the General Fund, shall be available for expenditure in the subsequent fiscal year, and
258 shall not be subject to section 5C.