HOUSE DOCKET, NO. 3032 FILED ON: 2/18/2021

HOUSE . . . . . No. 905

The Commonwealth of Massachusetts

PRESENTED BY:

Lori A. Ehrlich and Cynthia Stone Creem

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:
Lori A. Ehrlich	*8th Essex*	*2/18/2021*
Cynthia Stone Creem	*First Middlesex and Norfolk*	*2/18/2021*
Steven C. Owens	*29th Middlesex*	*2/23/2021*
Christina A. Minicucci	*14th Essex*	*2/26/2021*
Michelle L. Ciccolo	*15th Middlesex*	*2/26/2021*
David M. Rogers	*24th Middlesex*	*3/31/2021*
Jon Santiago	*9th Suffolk*	*3/5/2021*
Kay Khan	*11th Middlesex*	*6/15/2021*
Jason M. Lewis	*Fifth Middlesex*	*6/28/2021*
Natalie M. Higgins	*4th Worcester*	*7/22/2021*
Erika Uyterhoeven	*27th Middlesex*	*8/12/2021*
Sean Garballey	*23rd Middlesex*	*8/17/2021*
Diana DiZoglio	*First Essex*	*9/14/2021*
Danillo A. Sena	*37th Middlesex*	*11/8/2021*
Sonia Chang-Diaz	*Second Suffolk*	*12/1/2021*
Tommy Vitolo	*15th Norfolk*	*12/6/2021*
Adrian C. Madaro	*1st Suffolk*	*12/6/2021*
Nika C. Elugardo	*15th Suffolk*	*1/6/2022*

Jack Patrick Lewis	*7th Middlesex*	*1/19/2022*
Jacob R. Oliveira	*7th Hampden*	*1/20/2022*

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HOUSE . . . . . No. 905

By Representative Ehrlich of Marblehead and Senator Creem, a joint petition (accompanied by bill, House, No. 905) of Lori A. Ehrlich, Cynthia Stone Creem and others for legislation to establish a municipal reforestation program within the Executive Office of Energy and Environmental Affairs. Environment, Natural Resources and Agriculture.

The Commonwealth of Massachusetts

In the One Hundred and Ninety-Second General Court
(2021-2022)

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:

SECTION 1. Chapter 21A of the General Laws is hereby amended by adding the following section:-

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

conservation, energy efficiency, or green infrastructure building practices; (viii) local affordable housing or community development organizations; (ix) workforce development programs; (x) municipal departments of public works responsible for roads, water mains, sewers, and utility infrastructure; (xi) researchers with expertise in data collection related to natural resources, energy management, and climate change indicators; (xii) gas company infrastructure; (xiii) electric company infrastructure; (xiv) nonprofit transportation organizations with expertise in clean transportation; (xv) nonprofit organizations with expertise in municipal finance; (xvi) Metropolitan Area Planning Council, other regional planning councils, or the Massachusetts Municipal Association; (xvii) small business associations; (xviii) organized labor associations; (ix) municipal tree committees; and (xx) officials from the department of conservation and recreation, the department of environmental protection, and the department of transportation.

(b) (1) The secretary shall convene the council to provide advice and technical assistance to municipalities, tree-planting organizations, municipal arborists, state foresters, gas and electric companies, and the department of transportation to ensure sufficient technical expertise and oversight in the implementation of the municipal reforestation program, pursuant to chapter 21P. The council shall use science-based guidelines to determine urban tree canopy cover, for siting trees and to determine optimum tree species to ensure adequate root development and to achieve maximum reduction in consumer energy demand and removal of greenhouse gas emissions while causing minimal disruption to public infrastructure. The council shall develop guidelines to the secretary for approving plans submitted by municipalities pursuant to chapter 21P, and shall advise the secretary on the merits of such plans, including recommendations for improvement and approval. The secretary shall provide such resources, expertise, and administrative support as necessary for the advisory council to carry out its duties and responsibilities.

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

(c) The secretary and the urban forest advisory council, in consultation with the department of environmental protection shall develop quantitative and qualitative measures for valuing the contribution that an urban tree canopy cover makes to mitigate the effects of climate change, including removal of greenhouse gas emissions, energy conservation, reduction of heat island effect, storm water management, drought mitigation, air quality improvement, carbon

sequestration, and benefits to human health, using the best available scientific metrics and technology. Such measures may be updated as necessary to reflect current scientific research.

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

CHAPTER 21P

MUNICIPAL REFORESTATION PROGRAM

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

"Secretary", the secretary of energy and environmental affairs.

"Plan", the municipal reforestation plan.

"Program", the municipal reforestation program.

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

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

(2) The purpose and goals of the program include, but are not limited to: (i) removing carbon dioxide emissions from the transportation sector within the municipalities of the commonwealth through carbon sequestration provided by trees; (ii) improving public health by

mitigating harmful effects of excessive heat and cold; (iii) improving air quality by reducing levels of particulate pollution in neighborhoods with low urban tree canopy cover; (iv) strengthening climate resilience by strategically incorporating trees into urban green infrastructure projects; (v) promoting community, economic, and workforce development by incorporating green infrastructure into municipal transportation infrastructure and community planning; (vi) recognizing trees as a key state-wide investment in transportation infrastructure and workforce development in order to meet the mandates pursuant to chapter 21N; (vii) prioritizing the inclusion of green, sustainable infrastructure in the development of transportation infrastructure; (viii) prioritizing the expansion of the urban tree canopy cover in environmental justice neighborhoods, including expanding parks and open spaces; (ix) providing equitable access to funding for rural and urban neighborhoods for opportunities to develop green infrastructure; (x) maintaining the health of newly planted and existing trees in the urban environment by providing funding for maintenance and for inspection for pests and diseases; (xi) prioritizing the expansion of the urban tree canopy cover in municipalities to achieve a tree canopy cover of at least 60 percent.

Section 2. (a) The urban forest advisory council, pursuant to section 28 of chapter 21A, in consultation with the secretary of energy and environmental affairs, the secretary of transportation, and the secretary of administration and finance, shall establish a formula for the disbursement of funding for the program to each municipality in the commonwealth. Variables and weighted proportions of the formula shall include, but not be limited to: (i) the total number of road mileage within the municipality; (ii) the total population of the municipality; (iii) the total number of employed individuals within the borders of the municipality; (iv) the number of environmental justice criteria the municipality meets, as determined by the executive office of

energy and environmental affairs' environmental justice policy; and (v) the percentage of urban tree canopy cover with a greater weighted calculation provided for neighborhoods within a municipality having a tree canopy cover of 20 percent or less.

(b) All costs incurred by the secretary and the municipalities for the planning, implementation and maintenance of the program shall be covered by section 3 of this act. Funds shall be annually distributed to each municipality, pursuant to said section 3, no later than August 1st and shall take effect 3 years following enactment of this act.

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

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

(2) The plan shall include, but not be limited to: (i) an inventory of the municipality's existing tree canopy cover, using established scientific protocols for determining tree canopy cover, such as geographical information systems; (ii) an analysis to determine the optimal sites for planting trees to achieve the goals the program, using established scientific protocols for site selection; (iii) the current condition of the tree canopy cover of the neighborhood where the projects will be located; (iv) how the tree species proposed to be planted are suitable for the specific sites taking into account local environmental conditions; (v) the expected benefits from expansion of the tree canopy cover on energy consumption, heat island effect, wind reduction, storm water runoff, drought mitigation, and other consequences related to climate change; (vi) the expected benefits from expansion of the tree canopy cover on public health; (vii) plans to maintain and provide follow-up care following the planting of the trees; (viii) plans to engage community residents in the planting and maintenance of the trees, including workforce development programs; (viiii) the relationship of the project to any municipal vulnerability preparedness program; (x) a timeline for completion for each project within the plan while ensuring equitable project prioritization of projects for environmental justice neighborhoods when attainable; (xi) certification that tree pits are free of methane leaking from gas pipeline infrastructure; and (xii) any other information as may be required by the secretary. Plans shall be submitted to the secretary to be certified ensuring the plans meet the required criteria of this section.

(3) Trees planted under a certified plan may be planted in public rights of way, public parks, and on private residential and commercial property, provided that priority for project completion shall be given to: (i) sites in neighborhoods with low tree canopy cover with first priority given to sites with less than 20 percent tree canopy cover; (ii) sites in neighborhoods

with levels of particulate pollutants above the levels determined by the department of environmental protection and the department of public health to be hazardous to human health; (iii) sites in environmental justice neighborhoods; and (iv) neighborhoods that are deemed to be heat islands. Second priority shall be given to sites with less than 40 percent tree canopy cover. Third priority shall be given to sites with less than 60 percent tree canopy cover and to sites with any other criteria determined by the secretary, in consultation with the department of environmental protection, the department of conservation and recreation, and the department of transportation. To achieve optimal tree canopy cover, trees may be planted by a municipality on private residential and commercial property using funds allocated under sections 2 and 3 of this act, provided, however that the cost of maintenance for such trees shall be the responsibility of the owner of such property, through written agreement between the owner of the property and the municipality as a condition of such owner receiving the trees.

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

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

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

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

(d) If a municipality submits projects for the fiscal year that exceed the municipality's total funding allocation under subsection (b) of section 2 of this chapter, the secretary may certify such projects if the municipality submits the corresponding required financial forms, as determined by the secretary, indicating such municipality has the difference of the costs of the projects acquired through cash or in-kind contributions from the municipality, individuals, nonprofit organizations, corporations, or other entities.

(e) Funding from other public or private sources as authorized by section 9 of chapter 21A may be acquired by the secretary, provided, however, that such funds are used to finance projects to expand urban forests and the municipal reforestation program.

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

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

Section 6. The secretary may adopt rules, regulations, and guidelines for the administration and implementation of this chapter.

SECTION 3. (a) Notwithstanding any general or special law to the contrary, a percentage of the monies collected by the commonwealth through market-based compliance mechanisms pursuant to section 7 of chapter 21N of the General Laws to address greenhouse gas emissions from the transportation section, to be determined by the secretary of energy and environmental

affairs in consultation with the secretary of transportation, shall be used to fund the municipal reforestation program pursuant to chapter 21P. Said percentage of monies shall meet no less than the minimum amount sufficient to cover the entire cost of the municipal reforestation program pursuant to chapter 21P.