Comments of The Nature Conservancy in Massachusetts
Stakeholder Session 4
Site Suitability Straw Proposal

May 27, 2025

Thank you for your due diligence and efforts to develop straw proposals and implement the climate law. The Nature Conservancy ("TNC") is pleased to submit these comments as part of the Executive Office of Energy and Environmental Affairs ("EEA") and Energy Facilities Siting Board's ("EFSB") Stakeholder Session process to address the Site Suitability Straw Proposal ("Siting Proposal").

As noted in its prior comments, TNC recognizes the importance of site suitability criteria and the need, as part of any sitting, permitting and project development process, to preserve and protect important natural resources and appreciates.

TNC specific comments **and** responses to questions regarding the Siting Proposal are set forth in detail below.

Climate change resilience, carbon storage and sequestration, and biodiversity are core criteria for any determination of site suitability

The Act focuses on site suitability, particularly climate change resilience, carbon storage and sequestration, and biodiversity.

Specifically, the Act prioritizes and mandates, as part of the "methodology for determining the suitability of sites" consideration of climate change resilience, carbon storage and sequestration, and biodiversity,[1] and, similarly, as part of the mitigation hierarchy to be applied, consideration of carbon storage and sequestration, resilience, and biodiversity.[2] As such, these "core criteria" are fundamental to any assessment of suitability or any application of the mitigation hierarchy. Other elements are referenced as part of site selection, i.e., consideration of development potential and social and economic benefits and burdens, and, as part of mitigation, i.e., climate mitigation and protection of natural and working lands. The Act makes a distinction between those criteria specifically related to site suitability, the core criteria, plus development potential and social and economic benefits and burdens and those related to mitigation—the core criteria plus climate mitigation and protection of natural and working lands. Thus, development potential and social

[1] G.L. c. 21A, § Section 30.
[2] G.L. c. 164, § 69T for large facilities.

economic considerations are included in site suitability and climate mitigation and protection of natural and working lands are part of the application of the mitigation hierarchy.

The core criteria should be highly valued in any site suitability methodology

Given the consistent application of climate change resilience, carbon storage and sequestration, and biodiversity, the Act prioritizes these criteria in any assessment of site suitability and mitigation. Accordingly, these significant core criteria should be weighted as higher values throughout the process for both site selection ("suitability of sites"), e.g., a determination and evaluation of the possible sites, and, with respect to the application of the mitigation hierarchy as discussed below. The Act makes a distinction between the screening criteria relating to possible sites and with application of the mitigation hierarchy. See G.L. c. 21A, § 30 as compared to G.L. c. 25 A, § 21 and G.L. c. 164, § 69T.[3]

Although all the criteria are important, in its focus on these core criteria, the Act recognizes that the core criteria provide protection from environmental impacts that may otherwise result from the accelerated siting and permitting of energy facilities. The Act balances the need for accelerated siting of "clean" energy facilities to meet the Commonwealth's energy goals with the fundamental recognition that this fast-tracked development must be undertaken in a manner that avoids or minimizes environmental impact, with mitigation, if impacts cannot be avoided and minimized, and then only as necessary. The core criteria are quantifiable with meaningful metrics that can be applied in any assessment of suitability and mitigation.

Any siting framework must consider, as an essential requirement by proponents early in the process, e.g., pre-engagement, the core criteria to meaningfully direct siting away from ecologically sensitive areas. The screening process must clearly establish what sites are suitable and what sites are less so and distinguish at the outset locations that are buildable and not buildable. Early consideration of the core criteria will facilitate this process.

Core criteria should be valued separately

The Siting Proposal recommends a "separate benefits score calculated to reflect any social and environmental benefits, such as construction on environmentally degraded land or the built environment." Siting Proposal at 5. TNC supports this suggestion of a separate benefit score for evaluating, scoring, and weighting the core criteria (biodiversity, carbon sequestration and storage, and resilience) distinctly from consideration of development potential and social and economic benefits and burdens. Core criteria, development potential, and economic benefits and burdens are three separate categories, quantitively and qualitatively distinct. Combining them confounds the application of a clear and direct suitability assessment. A sequential approach, first defining thresholds based on the core environmental criteria, can then inform whether a project should be assessed for development potential benefits and burdens. A unified scoring index with eight data

[3] Both sections require the EFSB to apply the mitigation hierarchy during the permitting process to avoid, or minimize negative impacts of siting on the environment, people, and the commonwealth's goals for climate mitigation, resilience, biodiversity, and protection of natural and working lands. or, if impacts cannot be avoided or minimized, mitigate negative impacts of siting on the environment, people and the commonwealth's goals and objectives for climate mitigation, resilience, biodiversity, and protection of natural and working lands, to the extent practicable. Sections 21(b)(iv) and 69T(b)(iv).

categories, as referenced in the Siting Proposal, would dilute the impact of any one criterion, and confounds the ability to interpret and apply the final index value in a meaningful way.

Natural and working lands should be included as a significant criterion

TNC notes that natural and working lands are a priority area of protection in the Commonwealth, with protection goals in the Clean Energy and Climate Plans for 2025/2030 and 2050 of 30 percent by 2030 and 40 percent by 2050, and are directly tied to off-setting residual emissions to meet 2050 net zero commitments. Accordingly, TNC believes that natural and working lands should be considered as part of carbon storage and sequestration as part of any evaluation of suitability of sites, along with consideration of areas important for biodiversity, as a priority to avoid and minimize impacts on natural and working lands. In addition, any mitigation measures in such areas must take into account the strong policies designed to protect these sensitive areas.[4] The important linkage between forest carbon and natural and working lands is discussed below in the discussion of forest carbon.

TNC Comments on the specific criteria[5]

With respect to EEA's criteria and scoring, TNC offers the following comments on the criteria[6]:

1. Biodiversity: TNC applauds and strongly supports the use of **all** BioMap components in the Potential Suitability Scoring Methods (including BioMap Core Habitat, Critical Natural Landscape, and Local and Regional components/data, along with the University of Massachusetts' Index of Ecological Integrity). Siting Proposal at 4, Slides at 24). The inclusion of BioMap elements will result in an effective, credible, and defensible paradigm, with the following positive impacts:
    - Siting will truly address biodiversity protection, in a robust, multi-scale, and science-based approach.
    - Municipalities and agencies will have the advantage of both statewide and local biodiversity data to fully inform project review. BioMap's local components complement statewide data and will provide each city and town with an understanding of habitat priorities within their jurisdiction.
    - Use of the BioMap framework will work synergistically with MA policies and agencies focused on biodiversity conservation, including the emerging all-of-

[4] "Natural and working lands" are "lands within the commonwealth that: (i) are actively used by an agricultural owner or operator for an agricultural operation that includes, but is not limited to, active engagement in farming or ranching; (ii) produce forest products; (iii) consist of forests, grasslands, freshwater and riparian systems, wetlands, coastal and estuarine areas, watersheds, wildlands or wildlife habitats; or (iv) are used for recreational purposes, including parks, urban and community forests, trails or other similar open space land. G.L. c 21N, § 1. See also, https://www.mass.gov/info-details/2024-massachusetts-climate-report-card-natural-working-lands.

[5] TNC noted in its comments on Community Benefit Agreements, the specific criteria and mitigation must be considered independently from community benefits agreements which often focus on workforce/labor and premiums for communities, beyond environmental impacts.

[6] See Siting Proposal at 4.

government biodiversity goals stemming from Executive Order 618 Biodiversity Conservation in Massachusetts.

- It should be noted that the Siting Proposal at 4 includes only BioMap Core Habitat and Critical Natural Landscape, while the Slides at 24 include Core Habitat, Critical Natural Landscape, and Local and Regional Components. TNC supports the use of all four BioMap elements for site suitability. While the four will receive different weighting in suitability, with Core Habitat being the least suitable for development, all four contribute to biodiversity and should be factors in site suitability scoring.

2. Forest Carbon: The use of forest carbon data will support the statutory requirement that EEA set natural and working lands and carbon storage and sequestration goals in the Next Gen/Roadmap Law and embodied in the Clean Energy and Climate Plans 2025/30 and 2050 (CECPs), and EEA's Forests as Climate Solutions strategies. We need our critically important forests and wetlands to continue carbon sequestration and storage.
    - TNC's supports the use of the credible, peer reviewed and publicly available "National Forest Carbon Monitoring System" data to support this criterion. Siting Proposal at 4, Slides at 25. This data is readily accessible and available for viewing and analysis through TNC's Resilient Lands Mapping Tool. This makes it very easy for project proponents and agencies to assess projects for site suitability.
    - Carbon forest (and biodiversity) data, and the respective online mapping and analysis tools, are designed to support modifications to project footprints that will reduce/minimize impacts to these values. For example, project footprints within a parcel can be adjusted to clear less forest, reduce wetland buffer impacts, etc.

3. Resilience: Resilience based on riverine and coastal exposure is a great starting place. Importantly, the current application of resilience appears to focus solely on resilience of energy infrastructure in the face of climate impacts. TNC strongly recommends expanding that concept to include the potential impacts of energy infrastructure development on community resilience (e.g., infrastructure and its footprints avoiding exacerbation of impacts such as stormwater runoff, heat island effects, etc.) In addition:
    - TNC recommends using the latest and most precise riverine and coastal flood modeling science, data, and analyses, including those under EEA's ResilientMass Plan and the Office of Coastal Zone Management Coastal Resilience initiative. The proposal should consider excessive heat as a criterion, which is also addressed in the Climate Resilience Design Standards Tool. Clearing natural areas in urban areas and existing heat islands can exacerbate extreme heat conditions and flooding from ground/surface water runoff.

TNC Comments on other elements

Overall Scoring Mechanism: TNC appreciates that the Siting Proposal indicates that the score for each criterion, the Criteria Specific Suitability Score, can be taken into account separately as well as collectively. For example, if a project receives a high score for climate resilience but low scores for other criteria, the permitting authority could use that score to require resilience measures in the project design. Siting Proposal at 7. TNC encourages the use of individual scores that promote resilience measures and limit project impacts.

Degraded Land/Habitat Benefits: The Siting Proposal proposes a separate benefits score relating to social and environmental benefits, such as construction on environmentally degraded lands, and adding points for habitat benefits. Siting Proposal at 5. TNC recommends more clarity regarding the definition of degraded land. Using the term, "previously developed land", as in the SMART 3.0 Draft Land Use Policy update, defined as "areas degraded by impervious surfaces from existing structures or pavement, absence of topsoil, is a good approach. In addition, with respect to habitat benefits, TNC recommends that scoring for "providing habitat benefits" only be applied if siting occurs in previously developed/degraded land, as converting a forest or other natural ecosystems, followed by habitat management such as planting pollinator-supporting vegetation, is a loss of ecological function, structure, and composition and thus is ultimately net negative for biodiversity.

Mitigation Hierarchy

EEA states that the mitigation hierarchy is an approach to address potential environmental impacts, prioritizing avoidance, then minimization, followed by mitigation of any negative consequences. Siting Proposal at 7. Avoid, minimize, and/or mitigate are essential components of the Act. The mitigation hierarchy should include clear thresholds that developers must meet in each stage of the mitigation hierarchy in order to advance through the hierarchy. In other words, all efforts should be made to avoid or minimize impacts to maximum extent possible before any mitigation is allowed.

Each one of these is discussed below.

<u>Avoid</u>

TNC concurs with EEA that site suitability methodology needs to "help developers avoid areas where infrastructure will result in high adverse environmental and social impacts" and its recognition that "certain sensitive areas may be [ ] ineligible areas and projects located in those areas will be ineligible to receive a permit." Siting Proposal at 7. With respect to EEA's proposed waiver for clean transmission and distribution facilities if no other suitable route or location exists, TNC recommends the development of science-based standards to assess whether no other suitable route or location exists. Siting Proposal at 7. As part of any determination, utilities/developers should be required to collate transmission and distribution as a first priority, or if collocation is not available, place transmission infrastructure under street in the built environment, or underground as part of any site suitability assessment. Only as a last resort should overhead transmission be considered for transmission and distribution facilities.

With respect to the mitigation hierarchy, avoidance is the first and most important step for supporting conservation goals and to protect sensitive resources as required by the Act. Efforts to avoid and minimize impacts should be made to the maximum extent practicable – taking into account existing technology, available science, and the likelihood of success for offset actions – before mitigation is considered. Mitigation/offsets are then applied to address residual impacts.

Avoidance is critical to ensure that sensitive resources are not harmed. Accordingly, the policy should require that mitigation only be considered after avoidance and minimization efforts. As noted below, the guidance needs to clearly define what the hierarchy means and how it should be applied.

Minimize/Mitigate

EEA's proposal should provide more specific guidance on what constitutes minimization and mitigation. Siting Proposal at 8. The Siting Proposal suggests that the methodology will "encourage" developers to minimize the project's footprint overlap with sensitive areas with permit conditions to be determined based upon the Total Site Suitability Score or Criteria-Specific Suitability Scores and if the project overlap cannot be avoided or minimized, the project will have to take "mitigation actions and/or pay a mitigation fee". Proposal at 8. TNC urges that the guidance and the regulations require and clearly detail the actions required as part of "minimization" and what is involved with respect to mitigation.

Minimization should include requirements that inform site design. Once a site has been selected for development, the design of the energy infrastructure has significant influence on the overall impact. Considerations such as best management practices for vegetation, design of fencing, panel height and spacing, site preparation, and vegetation management can all contribute to improved outcomes for wildlife by minimizing impacts and enhancing co-benefits of the solar facility. Although the footprint of utility-scale PV solar facilities often occupies large areas, the associated infrastructure does not completely consume the footprint.

EEA/EFSB should avoid strategies that encourage or incentivize a race to the bottom in which paying a mitigation fee is the default option. A science-based approach, and the use of the core criteria, would support objective decision making about when avoidance and minimization is necessary, when mitigation/offsets are appropriate and what type of mitigation would be warranted.

Other Important Considerations

TNC published a guidance document "Achieving Conservation and Development: 10 Principles for Applying the Mitigation Hierarchy" [7] from which we have selected and paraphrased some of the principles, below:

- The mitigation hierarchy should be applied with clear recognition that many impacts to biodiversity, ecosystem services, and other resources and values cannot be offset. These impacts need to be avoided, as this may be the only means to prevent irreplaceable loss. The mitigation concept cannot be used to infer that sensitive ecosystems can be traded or replaced. There are limits to what can be mitigated/offset.

- Mitigation actions should focus on maintaining key ecological functions and meeting ecological targets and mitigation requirements should have performance standards, regulatory oversight and enforcement and a long-term management plan with necessary measures and funding.

[7] See, https://www.conservationgateway.org/Documents/TNCApplyingTheMitigationHierarchy.pdf for a detailed discussion of important elements of the mitigation hierarchy.

- Mitigation should provide a new contribution to conservation, in addition to what would have occurred without any mitigation/offset. Offset actions that restore, enhance, manage, and/or protect values and functions should be a genuinely new contribution to conservation with a strong probability of success. The amount and types of offsets required should be measured against project impacts to assess progress toward the mitigation policy goal. Mitigation/offsets must provide a new contribution to enhance the ecosystems beyond what would have occurred without mitigation/offset.

- Mitigation should provide ecologically equivalent values as those lost to project impacts. Offsets should preferably be "in kind" in terms of habitat type, functions, values, and other attributes. "Out-of-kind" offsets may be appropriate in cases where they better meet landscape-level conservation priorities and/or address past disproportional losses to other habitat types.

- Mitigation benefits should accrue in the project-affected landscape. Offsets should be implemented to maximize conservation benefits within a defined spatial extent or unit (e.g., watershed, ecoregion), supporting the accrual of offset benefits in the same landscape as project impacts.

- Mitigation should protect against temporal losses. Offsets should be designed and implemented to safeguard against temporal losses of conservation values that can occur due to the different timing of project impacts and offset benefits. At a minimum, offsets should provide a high level of confidence of protection for at least as long as the direct, indirect, and cumulative project impacts.

Finally, TNC recommends other federal and state models as helpful examples:

- For example, under the National Environmental Policy Act (NEPA), the Council on Environmental Quality has defined mitigation in its NEPA regulations at 40 CFR 1508.0 to include: a) avoiding the impact altogether by not taking a certain action or parts of an action, b) minimizing impacts by limiting the degree or magnitude of the action and its implementation, c) rectifying the impact by repairing, rehabilitating, or restoring the affected environment, d) reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action, and e) compensating for the impact by replacing or providing substitute resources or environments." This more nuanced approach provides multiple options to address impacts.

- The State of Georgia also developed "Recommended Practices for the Responsible Siting and Design of Solar Development in Georgia."

- The Nature Conservancy in North Carolina published a guidance document: "Principles of Low Impact Solar Siting and Design."[8]

[8] https://www.nature.org/content/dam/tnc/nature/en/documents/2023SolarGuidanceTNCNC.pdf

Mitigation Fee and Trust Fund

Assuming that mitigation, as a last resort, is required, EEA proposes a mitigation fee and a mitigation fund managed by EEA, as a mechanism to collect such a fund. Siting Proposal at 8.

The Siting Proposal does not describe the mechanism to assess mitigation offsets and fees. Although the Act (Section 21(b)) does include language authorizing mitigation fees specifically for municipalities for small facilities, there is no specific reference to any other mitigation fee mechanism in the Act. EEA should specifically describe how the mitigation fee would be implemented.

There are multiple options of existing trust funds that align with the intent of the Act which could accept deposits of mitigation fees that support the criteria under site suitability including:

- The Biodiversity Trust Fund (section 35D1/2 of Chater 10 of the General Laws) would enable mitigation funds to support the state's biodiversity goals and programs such as land acquisition, habitat management, ecosystem restoration,
- The Global Warming Solutions Trust (Section 35GGG of Chapter 10 of the General Laws); would enable funds to support carbon sequestration and storage, natural and working lands and adaptation/resilience.

In addition, in public forums EEA did state that it would be replicating the SMART approach to mitigation, which does include mitigation fees. EEA proposes to extend the mitigation fees proposed in the upcoming SMART 3 program to "all types of energy infrastructure through the new consolidated permitting process at the state and local levels." Proposal at 8. EEA/DOER/EFSB should make a distinction between the relatively smaller SMART 3 scale projects subject to the SMART mitigation hierarchy and the larger projects (e.g., BESS, larger scale solar, transmission and distribution), not subject to SMART 3, that may be more land intensive and create greater environmental impacts. If a one-size fits all policy evolves, it should more directly protect from impacts from larger projects and not the other way around.

Moreover, EEA/DOER /EFSB should coordinate on the sequencing and integration of SMART 3 and siting and permitting requirements under the Act and consider:

- The size and scale of SMART 3 eligible projects within small (municipal) or large (state) scale permitting processes.
- The mitigation provided for SMART 3 projects should inform the mitigation required in siting and permitting processes.
- The differences between the two site suitability criteria and how those get implemented.

In addition, with respect to mitigation fees and the Trust Fund, TNC recommends the following:

- Nature Positive: The use of the mitigation hierarchy and fees should be required to achieve a nature positive outcome based on the impacts to ecosystem services. At a minimum

there should be no net loss and ultimately a net benefit. In addition, it will be vitally important to ensure that ecologically equivalent lands, of equal or greater size, are conserved using mitigation funds. Receiving areas for funding should have the same, or higher values as those being developed, using the mitigation metrics such as Index of Ecological Integrity, forest carbon storage, etc. Receiving areas should also be of equal or greater size to those impacted from development.

- Equity in mitigation: Equitable mitigation should be in proximity to impacts. EEA should consider a system to ensure mitigation funds support locations proximal to the location of the impact and in addition apply funds with geographic units such as counties, or a regional approach (i.e. western, central, eastern, Cape and Islands). Without clear guardrails we will repeat mistakes of the past of harmful energy infrastructure that has impacted overburdened communities and nature.

- Mitigation Fee Structure: Mitigation fees should be structured to ensure a strong disincentive to develop lands that score highest among the core criteria. These fees should be greater than what was proposed for SMART 3 to disincentive larger developers, large BESS and T&D, for example, from developing in sensitive areas.

- TNC appreciates the Siting Proposal's mention of EEA programs that would benefit from funding from mitigation. The menu of programs should be expanded to EEA agency programs that support biodiversity and land and water protection, management, and restoration. The Department of Fish and Game is launching a robust biodiversity plan which will enhance existing wildlife and programs and create new programs. Examples of land programs reside within the EEA's Division of Conservation Services and examples of restoration programs reside within the Division of Ecological Restoration. There should be a robust dialog about deploying the funds and what and how they are allocated.

Site Suitability Evaluation and Metrics

With respect to the EEA's determination of site suitability, TNC recommends that EEA/EFSB consider more specific factors and metrics are set forth below:

- Ineligible Areas: The Siting Proposal considers whether to create certain categories of "ineligible areas" where projects would not be allowed to receive a permit or siting approval…" Siting Proposal 6-7. TNC supports the inclusion of areas ineligible for energy infrastructure siting and permitting. These areas could reasonably include areas of high biodiversity value, ecological integrity, and the highest forest carbon categories. Areas remote from transmission lines are also appropriate as ineligible. The MA DOER SMART 3.0 draft Land Use Policy update includes BioMap Core Habitat and the forests with the highest forest carbon stocks (top 20% of forests) as ineligible for SMART incentives. TNC recommends a similar approach in the Siting Proposal. The Siting proposal also mentions categories such as Priority Habitat, Article 97 protected open space, and Wetland resource areas (310 CMR 10.04). These areas should also be ineligible, based on the associated regulations, but are a different category than the proactive resource protections defined by BioMap and forest carbon data.

- Suitable Land: Two independent studies have demonstrated an abundance of suitable land for siting solar energy. Specifically, the Department of Energy Resource's "Technical Potential of Solar Study," and Mass Audubon's "Growing Solar, Protecting Nature" conducted geospatial analyses in which ecologically sensitive land was either excluded or rated/ranked for applying a mitigation hierarchy and concluded there was more than adequate land for solar development to meet the Commonwealth's goals.

- Evaluation: In some cases, site suitability evaluation should include "ground-truthing" in which a site survey complements geospatial mapping with on-the-ground conditions. For example, areas that have been developed subsequent to forest carbon mapping are no longer relevant for carbon sequestration and storage. Conversely, remotely sensed and modeled data measure aspects of the landscape that cannot be "ground truthed" in the field. The evaluation should consider the impacts across the three criteria and ensure that complementary approaches are applied consistently and not working at cross-purposes.

- Third Party Provider: TNC agrees with the comments of Michael DeChiara, Energy & Climate Action Committee. Chair of the Town of Shutesbury Planning Board, that site suitability scoring should be conducted by a third-party service provider to produce a more objective scoring analysis. Furthermore, EFSB/DOER should provide training and certification (and consider licensure) for site evaluators and service providers, similar to the EEA Municipal Vulnerability Preparedness Program and/or the Massachusetts Department of Environmental Protection Licensed Site Professionals. Third-party reviews would be paid for by the applicant.

- Land Use look back: Site suitability project evaluation should include a multi-year (e.g. 5-year) look-back period for forest carbon, BioMap habitat, the Index of Ecological Integrity, and other criteria to ensure there has not been manipulation of the land to affect the site suitability scoring. This avoids the possibility of a perverse incentive to remove trees or degrade habitat in order to score more favorably under site suitability.

- Program Tracking and Adjustment: Tracking should focus on the outcomes related to the new criteria and the indicators and metrics specific to the site suitability criteria should be adjustable, based on the results of a periodic assessment, to ensure they are functioning as intended (i.e. to streamline permitting while protecting people and nature).

- Metrics-Best Management Practices: As a component of minimizing impacts, energy infrastructure project proponents should be required to use Best Management Practices for any site development. This is consistent with EEA/DOER's commitment to utilize the best available data and practice in its scoring framework. Siting Proposal at 3. In addition, TNC agrees with Mass Audubon that vegetation maintenance should require best practices for ecological and water resources including provision of habitat for pollinators and birds on vegetated portions of the project, e.g. under and around solar arrays, any vegetated perimeter of battery storage systems, and on transmission and distribution corridors.

Additional Process, Case Studies, Examples

TNC consulted with conservation and solar developer colleagues and respectfully requests that EEA/EFSB undertake additional stakeholder engagement this summer before drafting regulations.

These efforts should include:

- Facilitated discussions among members of the Commission on Energy Infrastructure Siting and Permitting to help foster dialog, consider challenges, and develop solutions.

- A facilitated process similar to what DOER used during the development of SMART 3 in which multi-sector representatives listened to each other's concerns and Identified solutions.

As part of any further engagement, the process should include:

- As recommended by colleagues at Mass Audubon, EEA/EFSB should develop case studies, scenarios, and examples of projects to share with stakeholders to demonstrate how to apply site suitability and work through the mitigation hierarchy.

- Information regarding how the proposed approach to weighing and scoring of parcels/sites, development and application of mitigation fees, and a mitigation fund could work in practice.

- Clarification regarding the process and mechanics of how, during the permitting process for small infrastructure, towns and cities should apply guidance and scoring information to request changes to project proposals in order to avoid, minimize, and mitigate impacts.

Finally, in addition to our comments above, TNC offers the following additional overall recommendations. EEA should:

- Determine specific targets for energy infrastructure deployment and conservation to facilitate equitable distribution of benefits and burdens, and accountability and adaptive management.

- Maintain existing environmental laws, in particular with regard to water quality and quantity.

- Deploy the concept of site suitability and mitigation beyond energy infrastructure to apply to all forms of development, such as housing, transportation, and commercial development. TNC applauds the initiative to meet both development and conservation goals embodied in the Commonwealth's Holistic and Integrated Land Use Plan and Tool.

TNC's Answers to Questions for Stakeholders

Site Suitability Criteria

1. Are the proposed evaluation criteria appropriate? Are there criteria that should be applied to certain types of infrastructure and not others?

Answer: The Act prioritizes and mandates, as part of the "methodology for determining the suitability of sites" consideration of the "core criteria" (climate change resilience, carbon storage and sequestration, and biodiversity), and, similarly, as part of the mitigation hierarchy to be applied, consideration of carbon storage and sequestration, resilience, and biodiversity. As such, these "core criteria" are fundamental to any assessment of suitability or any application of the mitigation hierarchy. Other elements are referenced as part of site selection, i.e., consideration of development potential and social and economic benefits and burdens, and, as part of mitigation, i.e., climate mitigation and protection of natural and working lands. The Act makes a distinction between those criteria specifically related to site suitability—the core criteria, plus development potential and social and economic benefits and burdens and those related to mitigation—the core criteria plus climate mitigation and protection of natural and working lands. Thus, development potential and social economic considerations are included in site suitability and climate mitigation and protection of natural and working lands are part of the application of the mitigation hierarchy. Accordingly, these significant core criteria should be weighted as higher values throughout the process for both site selection ("suitability of sites"), e.g., a determination and evaluation of the possible sites, and, with respect to the application of the mitigation hierarchy as discussed below.

While Battery Energy Storage is not the expertise of The Nature Conservancy, we acknowledge that there are unique siting and operational aspects to this type of infrastructure. Siting needs to be done in the context of public health and safety, including fire safety, emergency services, water supply protection, etc.

2. Are there other criteria that should be added (e.g., public health, safety, or welfare-related metrics)? Please provide proposed metrics and data sources to assess any recommended criteria.

Answer: If additional criteria are added, they should be evaluated separately and sequentially, following an assessment of core criteria (carbon sequestration and storage, biodiversity, and community climate resilience), and the core criteria should be weighted as higher values throughout the process for both site selection ("suitability of sites"), e.g., a determination and evaluation of the possible sites, and, with respect to the application of the mitigation hierarchy as discussed in question 1 above. We defer to the representatives of the Commission on Energy Infrastructure Siting and Permitting with expertise in Environmental Justice to inform additional criteria.

3. EEA proposes to assess social and environmental burdens by screening areas for existing burdens, proximity to vulnerable populations, and impacts of specific infrastructure types.

- Is this the right way to assess social and environmental burdens?

Answer: This approach would be appropriate. Social and Environmental benefits/burdens may also be considered as part of cumulative impacts and the distinction should be clear and explained

and double counting avoided. Following evaluation of site suitability core criteria (see question #1 above) assessing social and environmental burdens should be a subsequent process.

- Would this be duplicative of the cumulative impact analysis requirements?

Answer: We think there are redundancies between the social and environmental benefits/burdens sections of the siting criteria and the cumulative impact analysis. This makes these criteria potentially duplicative.

- Should the site suitability methodology consider whether an area hosts a disproportionately large amount of specifically energy infrastructure?

Answer: This issue was raised at the stakeholder sessions with some communities concerned about disproportionate impacts. Site suitability criteria should include an assessment of disproportionate impacts as one part of its assessment. EEA should determine specific targets for energy infrastructure deployment and conservation to facilitate equitable distribution of benefits and burdens, and accountability and adaptive management.

4. Should EEA assess social and environmental benefits by adding points if a project would provide certain benefits, like siting facilities on brownfields or landfills, siting on the built environment, providing habitat benefits, creating local jobs, or displacing an emitting resource?

Answer: Siting on the built environment, brownfields, etc. should be a core principle of siting and permitting. So yes, add significant incentives (points) for siting facilities on brownfields, landfills, and the built environment. This is not an environmental benefit, it is a basic principle of the Avoid-Minimize-Mitigate approach.

In terms of habitat benefits, this is a separate question from siting on the built environment or on developed and degraded lands. Incorporating habitat benefits into projects is only relevant when building on formerly developed or degraded lands. TNC recommends that scoring for "providing habitat benefits" only be applied if siting occurs in previously developed/degraded land, as converting a forest or other natural ecosystems, followed by habitat management such as planting pollinator-supporting vegetation, is a loss of ecological function, structure, and composition and thus is ultimately net negative for biodiversity. For example, if a forest is cleared for an energy facility, and plant native and pollinator plants are planted post construction, that is a clear net negative for biodiversity. On the other end of the spectrum, if we restore a portion of a defunct golf course and put in a solar array with native pollinator-friendly plants, that's a net positive. And then there's a gradient in between (e.g. on marginal farm fields, etc.). But any native habitat that's cleared, from our perspective, shouldn't be considered as having improved ecological value.

- Are these the right ways to assess social and environmental benefits, or are there different benefits or metrics we should consider?

Answer: There are many other social and environmental benefits, depending on the community and the location, including:

- Minimize exacerbation of heat island effect

- Minimize stormwater runoff
- No impacts to water quality/ground water,
- Provide access to nature

Answer: Again, we defer to our partners with expertise on assessing social benefits and burdens.

5. Is the proposal to use riverine and sea level rise exposure scores to assess climate resilience, focusing on flooding risks the right way to assess climate resilience?

- Should other climate risks be considered?

Answer: TNC strongly recommends expanding that concept to include the potential impacts of energy infrastructure development on community resilience (e.g. infrastructure and its footprints should avoid exacerbating impacts such as stormwater runoff, heat island effects, etc.)

The proposal should consider Excessive Heat as a criterion, which is also addressed in the ResilientMass Climate Resilience Design Standards Tool. Clearing natural areas in existing heat islands can exacerbate extreme heat conditions and flooding from ground/surface water runoff.

TNC recommends using the latest and most precise riverine and coastal flood modeling science, data and analyses, including those under EEA's ResilientMass Plan and the Office of Coastal Zone Management's ResilientCoasts initiative.

- Do different types of energy infrastructure face different risks?

Answer: Yes

- Additionally, should EEA consider not just climate risks the energy facility may face, but also how the facility may exacerbate climate impacts in the surrounding area?

Answer: Yes, definitely. See our answer in question 5 above.

6. The site suitability methodology is required to consider "development potential" by law and grid alignment is proposed as the metric for considering development potential for generation and storage projects. Is this the right way to evaluate development potential for these types of projects?

Answer: Development potential should be separate from the core criteria as noted in TNC's response to question 1. Development potential should be considered in the context of environmental impacts—proximity to the grid is not justification for environmental impacts to sensitive areas.

- For transmission and distribution projects, could development potential be considered by measuring the amount of load projected for that area in the future by the ESMP load projections or EEA's planned building electrification load projection analysis, and/or by overlap with designated areas of development as defined by Chapter 40R (Smart Growth zoning), the MBTA Communities Act, or other already designated areas?

Answer: Transmission and distribution(T&D) projects require specific analysis and as part of any T&D assessment utilities should be required to demonstrate that alternatives are not available, collocation is considered, the mitigation hierarchy is employed, and infrastructure is under street in the built environment and underground in the unbuilt environment. The availability of "benefits" should not justify building in sensitive areas where alternatives exist.

7. How should the site suitability methodology be integrated with the cumulative impacts analysis proposal(s) that will be proposed by OEJE and the EFSB? If yes, please provide specific recommendations on how this may be best achieved.

Answer: See above

Unique Infrastructure Types

8. How should this framework consider the suitability of where undersea transmission cables are sited? Note that this framework applies only to projects under state jurisdiction, which includes the portions of undersea transmission cables in state waters (i.e., 3 nautical miles or less from the shoreline).
9. Should this methodology be applied differently to linear infrastructure (e.g., transmission lines and distribution feeders) as opposed to non-linear infrastructure (e.g., generation facilities, energy storage, and substations)? If so, please provide specific examples of how these types of facilities should be evaluated differently.

Answer: The site suitability criteria should apply to all energy infrastructure.

Site Suitability Scoring

10. What weights should be assigned to each criteria for the purposes of scoring?

Answer: Given the consistent application of climate change resilience, carbon storage and sequestration, and biodiversity, the Act prioritizes these criteria in any assessment of site suitability and mitigation. Accordingly, these significant core criteria should be weighted as higher values throughout the process for both site selection ("suitability of sites"), e.g., a determination and evaluation of the possible sites, and, with respect to the application of the mitigation hierarchy.

- The core criteria biodiversity and forest carbon and sequestration and resiliency criteria should be prioritized as noted in response to question 1. The biodiversity and forest carbon criteria are particularly objective and measurable, and the values they represent are irreplaceable. Resiliency is measurable as well. These criteria are not well-represented elsewhere in the siting and permitting process. Therefore, Biodiversity and Carbon Sequestration and Storage should receive the highest weights. For reference, DOER's SMART 3.0 draft Land Use Policy update weighted Biodiversity and Carbon the highest among all criteria.

11. Should the site suitability methodology include "ineligible areas," with the ability for utility infrastructure to apply for a waiver?

- Are the potential ineligible categories proposed appropriate?
- Should any of these land categories be implemented into the site suitability methodology as criteria rather than as ineligible areas?
- Are there other categories of land we should consider as "ineligible areas?"

Answer: TNC concurs with EEA that site suitability methodology needs to "help developers avoid areas where infrastructure will result in high adverse environmental and social impacts" and its recognition that "certain sensitive areas may be [ ] ineligible areas and projects located in those areas will be ineligible to receive a permit." Siting Proposal at 7. With respect to EEA's proposed waiver for clean transmission and distribution facilities if no other suitable route or location exists, TNC recommends the development of science-based standards to assess whether no other suitable route or location exists. Siting Proposal at 7. As part of any determination, utilities/developers should be required to collocate transmission and distribution as a first priority, or if collocation is not available, place transmission infrastructure under street in the built environment, or underground as part of any site suitability assessment.

TNC supports the inclusion of areas ineligible for energy infrastructure siting and permitting. These areas could reasonably include areas of high biodiversity value, ecological integrity, and the highest forest carbon categories. Areas remote from transmission lines are also appropriate as ineligible. The MA DOER SMART 3.0 draft Land Use Policy update includes BioMap Core Habitat and the forests with the highest forest carbon stocks (top 20% of forests) as ineligible for SMART incentives. TNC recommends a similar approach in the Siting Proposal. The Siting proposal also mentions categories such as Priority Habitat, Article 97 protected open space, and Wetland resource areas (310 CMR 10.04). These areas should also be ineligible, based on the associated regulations, but are a different category than the proactive resource protections defined by BioMap and forest carbon data.

12. Which data sources and metrics should be used for scoring each criterion?

Answer: Biodiversity: TNC applauds and strongly supports the use of all BioMap components in the Potential Suitability Scoring Methods (including BioMap Core Habitat, Critical Natural Landscape, and Local and Regional components/data, along with the University of Massachusetts' Index of Ecological Integrity. Siting Proposal at 4, Slides at 24). Inclusion of BioMap elements will result in an effective, credible, and defensible paradigm, with the following positive impacts:

- Siting will truly address biodiversity protection, in a robust, multi-scale, and science-based approach.
- Municipalities and agencies will have the advantage of both statewide and local biodiversity data to fully inform project review. BioMap's local components complement statewide data, and will provide each city and town an understanding of habitat priorities within their jurisdiction.
- Use of the BioMap framework will work synergistically with MA policies and agencies focused on biodiversity conservation, including the emerging all-of-government biodiversity goals stemming from Executive Order 618 Biodiversity Conservation in Massachusetts.

It should be noted that the Siting Proposal at 4 includes only BioMap Core Habitat and Critical Natural Landscape, while the Slides at 24 include Core Habitat, Critical Natural Landscape, and

Local and Regional Components. TNC supports the use of all four BioMap elements for site suitability. While the four will receive different weighting in suitability, with Core Habitat being the least suitable for development, all four contribute to biodiversity and should be factors in site suitability scoring.

Forest Carbon: The use of forest carbon data will support the statutory requirement that EEA set natural and working lands and carbon storage and sequestration goals in the Next Gen/Roadmap Law and embodied in the Clean Energy and Climate Plans 2025/30 and 2050 (CECPs), and EEA's Forests as Climate Solutions strategies. We need our critically important forests and wetlands to continue carbon sequestration and storage.

- TNC's supports the use of the credible, peer reviewed and publicly available "National Forest Carbon Monitoring System" data to support this criterion. Siting Proposal at 4, Slides at 25. This data is readily accessible and available for viewing and analysis through TNC's Resilient Lands Mapping Tool. This makes it very easy for project proponents and agencies to assess projects for site suitability.
- Carbon forest (and biodiversity) data, and the respective online mapping and analysis tools, are designed to support modifications to project footprints that will reduce/minimize impacts to these values. For example, project footprints within a parcel can be adjusted to clear less forest, reduce wetland buffer impacts, etc.

Resilience: Resilience based on riverine and coastal exposure is a great starting place. Importantly, the current application of resilience appears to focus solely on resilience of energy infrastructure in the face of climate impacts. TNC strongly recommends expanding that concept to include the potential impacts of energy infrastructure development on community resilience (e.g. infrastructure and its footprints avoiding exacerbation of impacts such as stormwater runoff, heat island effects, etc.) In addition:

- TNC recommends using the latest and most precise riverine and coastal flood modeling science, data and analyses, including those under EEA's ResilientMass Plan and the Office of Coastal Zone Management Coastal Resilience initiative.
- The proposal should consider excessive heat as a criterion, which is also addressed in the Climate Resilience Design Standards Tool. Clearing natural areas in urban areas and existing heat islands can exacerbate extreme heat conditions and flooding from ground/surface water runoff.

13. Should any of the criteria scoring metrics vary for different types of energy infrastructure? If so, how?
14. How should project footprint, or the boundaries of a project's footprint, be measured?

Answer:

- We support the DOER definition from the 12/10/24 SMART Land Use Policy Update: "Acres impacted = footprint of panels + land permanently impacted by construction (clearing, grading, roadways)". DOER's earlier definition also includes valuable concepts (from 7/24): "…the footprint of the solar panels and the footprint of land impacted by associated construction activities, such as clearing, grading, and shading prevention."

- Any land cleared of native vegetation, with alteration of its natural composition and structure, will reduce ecological integrity, resilience, and ecosystem values and should be part of the project footprint.

- Should the definition of project footprint vary for different types of energy infrastructure, or for different site suitability criteria?

Guidance

15. What kinds of requirements or permit conditions should a permitting agency be able to institute based on a project's site suitability score to ensure project developers avoid, minimize, and/or mitigate environmental impacts?

Answer: Core principles of mitigation are important to apply as part of permit conditions. These are referenced in TNC comments submitted 6-8. Although all the principles are important, "nature positive" is key to any permit approval and conditions. As TNC stated in its comments: Nature Positive: The use of the mitigation hierarchy and fees should be required to achieve a nature positive outcome based on the impacts to ecosystem services. At a minimum there should be no net loss and ultimately a net benefit. In addition, it will be vitally important to ensure that ecologically equivalent lands, of equal or greater size, are conserved using mitigation funds. Receiving areas for funding should have the same, or higher values as those being developed, using the mitigation metrics such as Index of Ecological Integrity, forest carbon storage, etc. Receiving areas should also be of equal or greater size to those impacted from development.

Mitigation Fees

16. If they are ultimately implemented, what should be the minimum and maximum levels of mitigation fees to discourage siting in less suitable areas while not being excessive?
17. What kinds of projects should mitigation fee funds be used for? Should they be used for general conservation and resilience projects throughout the state, or for host community-specific mitigation projects?

Answer: It will be vitally important to ensure that ecologically equivalent lands, of equal or greater size, are conserved using mitigation funds. Receiving areas for funding should have the same, or higher ecological values as those being developed, using metrics such as BioMap, Index of Ecological Integrity, forest carbon storage, etc.

Equity in mitigation: Equitable mitigation should be in proximity to impacts. Mitigation funds should support locations proximal to the location of the impact. Funds should be applied within geographic units such as counties, or a regional approach within the state (i.e. western, central, eastern, Cape and Islands). Without clear guardrails we will repeat mistakes of the past of harmful energy infrastructure that has impacted overburdened communities and nature.

TNC appreciates the Siting Proposal's mention of EEA programs that would benefit from funding from mitigation. The menu of programs should be expanded to EEA agency programs that support biodiversity and land and water protection, management and restoration. The Department of Fish and Game is launching a robust biodiversity plan which will enhance existing wildlife and programs and create new programs. Examples of land programs reside within the EEA's Division of Conservation Services and examples of restoration programs reside within the Division of Ecological Restoration. There should be a robust dialog about deploying the funds and what and how they are allocated.

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- How should community benefits agreements interact with mitigation fees?

Answer: Mitigation fees should be separate from CBAs. CBAs should relate to community needs given the development of a project in a specific municipality or area. CBA's should appropriately focus on specific local requirements, as discussed with stakeholders, with commitments for workforce development, training, investments and so forth as referenced in EEA's examples of meaningful commitments and as noted in TNC Comments on CBAs. Mitigation fees should be directed toward incentivizing developers to make sound environmental choices (e.g., built environment, away from sensitive areas, collocation if T&D) and funds collected should be used to mitigate environmental harms/impacts.

TNC appreciates the opportunity to submit these comments and looks forward to continuing to work with the EFSB as part of the Stakeholder process.

Respectfully submitted,

The Nature Conservancy

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