



DOCKET ITEM #11
Environmental Action Plan Phase 2
Green Building and Land Use and Open Space Chapters

Application	General Data	
Public hearing and consideration of the Green Building and Land Use and Open Space chapters for Phase 2 of the Environmental Action Plan.	Planning Commission Hearing:	June 25, 2019
	City Council Hearing:	July 9, 2019
Applicants: City of Alexandria Staff: Departments of Planning and Zoning and Recreation, Parks, and Cultural Activities.		

Staff Recommendation: APPROVAL

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PLANNING COMMISSION ACTION, JUNE 4, 2019: On a motion made by Commissioner Lyle and seconded by Commissioner Brown, the Planning Commission voted to defer the Environmental Action Plan Phase 2 Update. The motion carried on a vote of 6-0, with Vice Chair Wasowski absent.

Reason: The Planning Commission deferred the request to its June 25, 2019 meeting.

Commissioner Lyle expressed concern about including on the legislative agenda a request to allow jurisdictions the authority to require energy performance disclosure by private building owners or utility companies. She followed with a question regarding the City's progress toward geo-thermal districts. Staff responded that opportunities may exist for new buildings.

Commissioner Lyle did not support the EPC suggestion to require all public buildings to meet Net Zero Energy goals in the design development stage by August 2019. Staff responded that the EPC proposed date is inherent in the implementation of the Green Building Policy on March 2, 2020, as all development applications received by that date would need to address the policy at the design phase in the Fall of 2019. Chair Macek suggested that the EAP actions could refer to the Green Building Policy to avoid conflict with the policy. Koenig supported adding the EAP language for the August 2019 date.

Karl Moritz provided context for the EAP Green Building chapter recommendations by stating that the Green Building Task Force had developed the recommendations in concert with the Green Building Policy and suggested that the commission consider this in its evaluation. Staff added that several public outreach initiatives on the chapter actions took place several times between November 2018 and May 2019, including at the task force meetings, the Eco-City Summit, the Earth Day event, and at presentations to City commissions and stakeholder groups.

Commissioner Koenig supported several of the EPC recommendations. Commissioner Lyle recommended deferral of the review of the EAP actions to June 25 as the EPC recommendations were received at the beginning of the meeting and public comment has already been factored into the task force-developed actions. Deferral would also provide time for the task force to respond to the EPC's proposed changes. Chair Macek agreed with Commissioner Lyle, adding that deferral would provide staff with time to prepare responses to the EPC recommendations for the commission's consideration.

Speaker:

Jim Kapsis, Vice Chair of the EPC, presented the EPC recommended edits to the proposed Green Building chapter of the EAP as a result of its June 3 meeting.

I. DISCUSSION

The Planning Commission plays a central role in advancing the environmental principles of the Environmental Action Plan (EAP) through its review of policy initiatives and development proposals that apply, particularly, to the EAP Green Building and Land Use and Open Space chapters. As the Commission's recommendations for the EAP Phase 1 short-term actions were adopted by the City Council in October 2018, its recommendations regarding the Phase 2 proposed actions are viewed as important contributions to ensuring the balance of social, economic and environmental factors in building a sustainable Alexandria.

BACKGROUND

EAP 2009

City Council adopted the Environmental Action Plan 2030 in June 2009, following the guiding principles of the Eco-City Charter. The EAP consists of 10 chapters: Transportation, Green Building, Air Quality, Water Resources, Environment and Health, Energy, Land Use and Open Space, Solid Waste, Global Climate Change and Other Emerging Threats, and Implementation, Outreach, and Education.

EAP Phases 1 and 2

The City launched a two-phase update to the EAP in September 2017 as a majority of the short-term actions established in 2009 had been achieved and that creating new EAP goals, targets, and actions was essential as climate change impacts became more evident and the City's environmental priorities had evolved. Phase 1 identified goals and short-term action items (FY2019-FY2023) for five chapters: Energy, Climate Change, Solid Waste, Green Building, and Land Use and Open Space. City Council approved Phase 1 at its October 15, 2018 public hearing.

Phase 2 proposes short, mid (FY2024-FY2029), and long-term (beyond FY2040) action items for the remaining five program areas: Transportation, Air Quality, Water Resources, Environment & Health, and Implementation, Outreach and Education. At the same time, additional short-term and new mid and long-term goals for the Energy, Climate Change, Solid Waste, Green Building, and Land Use and Open Space chapters are also proposed for City Council review in June 2019.

II. SHORT, MID AND LONG-TERM ACTION RECOMMENDATIONS – PHASE 2

The staff Phase 2 EAP recommendations for the Green Building and Land Use and Open Space chapters, to be presented to the City Council on June 22, 2019, are included in this report on pages 7 through 16. These are the result of a City inter-departmental endeavor, collaborating with Environmental Policy Commission (EPC) members and the public, to develop new short, mid, and long-term actions that advance public well-being and City sustainability.

Green Building

Fulfilling Green Building EAP Phase 1 short-term action 3.1.1, the Green Building Task Force developed an update to the Green Building Policy between November 2018 and April 2019 for Planning Commission review on June 4 and City Council consideration on June 22. As updates to the policy were drafted, new short, mid and long-term actions evolved that supported the implementation and advanced the programming of the Green Building Policy through 2040. These were a result of Task Force and inter-departmental staff deliberations based on the Integral Group consultant recommendations and from public comments generated at Task Force meetings and Eco-City outreach events.

The proposed Green Building chapter actions 3.1.3 through 3.1.17 are designed to further reduce the environmental impacts of new and existing buildings and are related to future updates of the policy. These actions represent initiatives that require time to establish, such as developing a performance monitoring program, establishing incentives for new private development and existing buildings, creating a performance-based procurement process to reduce costs of Net Zero Energy (NZE) projects, and initiating and completing a NZE pilot program to standardize the practice of net zero public building construction. As a long-term goal, staff recommends that the Green Building Policy is updated regularly every five to seven-years as needed, with a Task Force, to incorporate the short and mid-term programmatic items into the Green Building Policy as they are implemented.

Other actions promote green building practices for existing, privately-owned buildings, such as the implementation of a C-Pace (Commercial Property Assessed Clean Energy) financing initiative for existing commercial buildings and homeowner and contractor educational programs, appear in the Energy and the Education, Implementation and Outreach chapters, respectively.

Land Use and Open Space

Enhancing the City's tree canopy and open space are two focus areas comprising the Land Use and Open Space chapter of the EAP. Although the Department of Parks, Recreation and Cultural Activities (RPCA) is the lead department for implementation of the tree canopy actions, the Department of Planning and Zoning ensures that the City's tree canopy goals are met through development and non-development reviews. Further, The Department of Planning and Zoning led the update of the Landscape Guidelines, in partnership with RPCA, accomplishing short-term action 4.1.1 with City Council adoption in February 2018. The Landscape Guidelines support increased tree preservation, expansion, maintenance, and native species in the City. Regarding open space, RPCA monitors and maintains the City's public open space and the Department of Planning & Zoning balances private and public open space needs in Small Area Plans and development reviews.

RPCA has proposed long-term goal 4.1.5 to enhance the City's tree canopy coverage through a 2029 update to the Urban Forestry Master Plan which supports increased tree preservation, expansion, maintenance, native species, and a revised tree canopy coverage goal.

The proposed mid-term actions for the Open Space subchapter are prioritized recommendations from the Open Space Master Plan. This includes developing a plan for the City's stream valleys to protect valuable lands for both ecological and recreational benefits. This is particularly important as land around streams redevelops and opens opportunities for coordinated streambank projects. The EAP, per the Open Space Master Plan, also recommends seeking unconventional spaces for recreational and/or green infrastructure, particularly within the City's more urban neighborhoods.

Further, the RPCA Open Space Steering Committee, established in response to a short-term action, will re-assess the methodology, policies, and tools for evaluating future publicly accessible open space sites, whether through acquisition, easements, or development. Through this process, the work group will also evaluate the potential to increase the current open space ratio of 7.3 acres per 1,000 to 7.5 acres per 1,000. The findings of the Steering Committee will direct mid and long-term actions, in addition to short-term actions already identified in the EAP.

Implementing short-term action 4.2.3 for an open space and private development study, the Department of Planning & Zoning, in concert with RPCA and Transportation & Environmental Services (T&ES), is engaged in a discussion series with the Planning Commission, Environmental Policy Commission, and Park and Recreation Commission to explore the quantitative and qualitative factors of open space in new development. To-date, the discussion has presented the compliance of recent development with the quantitative requirements for open space in new development, and the qualitative factors of successful development centered around four roles or categories: form definition, visual relief, provision of outdoor living, and environmental infrastructure. The discussion series will continue with a Joint Work Session in May with the three commissions and with the Planning Commission at its June 4 hearing. The topic of discussion for these forthcoming meetings will be the creation of a list of Shared Expectations for open space in new development. EAP mid and long-actions may be developed based upon the endorsement of the Shared Expectations.

Summary

Staff believes that the proposed short, mid, and long-term actions proposed for the Green Building and Land Use and Open Space chapters of the EAP will contribute to the overall EAP sustainability goal to improve the social, economic, and environmental well-being in the City of Alexandria. The Departments of Planning & Zoning, Recreation, Parks and Cultural Activities, General Services, Transportation & Environmental Services and the Office of Housing recommend approval of the proposed Green Building and Land Use and Open Space chapters.

3. Green Building

The Green Building section's goal to optimize the economic, environmental, and social performance of new and existing buildings in the City of Alexandria is a multi-departmental effort to reduce GHG emissions and to improve air and water quality through development of greener buildings. The updated target and actions build on the successes of the 2009 Green Building Policy and the current standard development conditions which resulted in nearly 10 million square feet of green building built in the City, equating to approximately 95 percent of new development square footage in compliance with the policy.

The 2019 Green Building Policy is the focus of the EAP 2040 Green Building section. The update of the Green Building Policy in June 2019 (a short-term action adopted in Phase One in October 2018) involves the coordination and expertise of the Green Building Policy Update Task Force in addition to the Departments of Planning & Zoning, General Services, Transportation & Environmental Services, Code Enforcement, Office of Housing and Office of Management and Budget.

The policy sets cutting-edge green building standards for new, large-scale private and public development, with the City leading by example through increased certification level of green building performance, plus an enhanced focus on net zero energy buildings, and overall reductions in energy use, stormwater treatment, improved water efficiency, and indoor environmental quality. The actions in this section coordinate with other EAP actions to evaluate and develop additional programs that incentivize green building, measure and monitor building performance and set a pathway to achieve net zero energy in new and existing City-owned buildings. The process and updated policy inform the short, mid, and long-term goals of this EAP section, contributing to overall City sustainability.

As most communities are primarily comprised of existing buildings, the performance characteristics of both new and existing buildings will have an impact long into the future. For the 2015 GHG inventory, existing buildings accounted for 57 percent of GHG emissions in the City.

Goal Optimize the economic, environmental, and social performance of new and existing buildings in the City of Alexandria.

Target By FY2019, the Green Building Policy will set expectations for how both new and existing buildings should contribute toward achieving the goals for GHG emissions, water use, and stormwater runoff reduction established in the EAP, and by FY2020 will set forth a path for new city-owned buildings to meet a net zero energy standard. The City will maintain the same level of policy compliance as in the first decade since its adoption.

3.1 Green Building Policy

Update will be considered by the Planning Commission and City Council in June 2019. Mid- and long-term actions for the Phase II Update of the Environmental Action Plan is being developed concurrently with the outcome of this update.

Short-Term Actions

3.1.1 Review the effectiveness of the current Green Building Policy and update the Policy in FY2019 with a focus on sustainable strategies that have the greatest impact toward achieving targets across EAP principle areas. The Task Force deliberations will inform the medium and long-term EAP actions for Green Buildings. Through this process, with support of third-party consultant analysis, the update will consider topics such as:

- Increasing LEED or equivalent third-party green building certification standards for private development;
- Establishing a separate green building standard, which includes evaluating the feasibility of a net zero standard where applicable, for new public development, including schools in collaboration with ACPS;
- Establishing incentives for private development participation in green building certifications, to achieve the quantifiable goals for GHG emissions and water use and stormwater runoff reduction established in the EAP;
- Prioritizing specific green building elements;
- Introducing mandatory and/or voluntary green building practices for existing buildings (including historic) and for small buildings not subject to site plan review;
- Instituting a building performance monitoring program;
- The City's ability to be more ambitious than the private sector in meeting green building goals to serve as a sustainability leader, and
- Establishing a Green Zone in the City per the legislative authority of 58.1-3854, Creation of local green development zones for tax incentives, permit fees, special zoning, and exemption from ordinances.

As part of this process, a Green Building Policy Update Task Force will be established by City Council. The Task Force, with critical input from the EPC and

the development community, will determine the actual topics to be analyzed by the consultant.

Cost Estimate: \$75,000

Cost Breakdown: The funds will be used for consultant studies on policy analysis on a cost analysis. Does not include staff time.

- 3.1.2. By FY2020, evaluate additional sustainable features to incorporate into the “Building Section” of the standard development conditions for the Development Site Plans (DSP) and Development Special Use Permits (DSUP) that will contribute toward achieving targets across EAP principle areas.

Cost Estimate: Existing staff resources

NEW Short-Term Actions:

- 3.1.3. Update the Concept 2 Development Plan Checklist to include a requirement for a preliminary compliance narrative that indicates the applicant development team is aware of the City’s Green Building Policy and understands how it is applied.

Cost Estimate: Existing staff resources

- 3.1.4. Update checkpoints within the development review process to track compliance with the Green Building Policy.

Cost Estimate: Existing staff resources

- 3.1.5. Update standard development conditions for projects subject to the new Policy to include the following topics:

- Staff access to performance data
- Sub-metering of EV charging stations (so that whole-building metering is not affected)
- Optional energy metering in multifamily and hotel developments
- Optional enhanced commissioning measures in private development

Cost Estimate: Existing staff resources

- 3.1.6. Establish incentive programs that encourage green building renovations for existing buildings, such as encouraging property owners and leasing agents to participate in a Green Lease Leader program.

Cost Estimate: Existing staff resources

- 3.1.7. Establish a process for evaluating Net Zero Energy standards in new public buildings, including applicable guidelines, standards, and rating systems.

Cost Estimate: Existing staff resources

- 3.1.8. Start a pilot program that includes documentation of the procurement/reporting process to construct one net zero energy (NZE) public building.

Mid-Term Actions

- 3.1.9 Evaluate regulatory incentives linked to specific green building performance measures for new private development:
- Establishing a City-wide Green Zoning Overlay (e.g., incentivizing solar panels and wind turbines through additional building height or allowing floor area exclusions to accommodate passive design elements).
 - The feasibility of permitting bonus building height and density (once affordable housing bonuses are first exhausted) for applying green building practices above those outlined in the new Green Building Policy.
- 3.1.10 Establish a Performance Monitoring Program for private development as staffing resources become available to manage the Program and track green building certification through the development review process.
- 3.1.11 Evaluate the possibility of establishing a fee-in-lieu program for projects that are unable to comply with the Green Building Policy.
- 3.1.12 Complete a pilot program to construct one net zero energy (NZE) public building.
- 3.1.13 Establish a standardized process for NZE public buildings city-wide.
- 3.1.14 Investigate the feasibility of performance-based procurement for the NZE construction of public buildings.
- 3.1.15 Complete a study of feasibility and methods to achieve net zero energy in existing building renovations, including the ability to achieve LEED Zero or other applicable net-zero certification processes in existing LEED certified buildings.

Long-Term Action

- 3.1.16 Schedule future administrative updates to the Green Building Policy to coincide with changes in third-party certification, the revisions to the state Building Code and the implementation of programs established through the EAP actions, with major updates for City Council every 5-7 years as needed. To maintain alignment with the intent of this Policy, Performance Points may be adjusted over time to correspond with updates to the rating systems, revisions to the building code, and/or updates to state, federal, or other City policies.

All Actions

Cost Estimate: \$120,000

Cost Breakdown: One FTE to implement and manage Actions 3.1.7 through 3.1.16

Legislative Priorities

1. Enable local jurisdictions to require energy performance disclosure by private building owners and/or utility companies.
2. Advocate for local building code authority to create, implement, and enforce a local green building code.

Justification

Green building practices are an important instrument in reducing GHG emissions and energy use, potable water consumption, raw materials use, and waste output. Green Building methods also contribute to increased air quality, reduced storm water pollution, reduced energy demands, and economic sustainability.

Accountable Parties

Planning and Zoning (primary); General Services; Office of Housing; Code Administration; Transportation and Environmental Services (EV charging and stormwater); Office of Management and Budget (performance procurement process).

4. Land Use and Open Space

The City of Alexandria is committed to protecting and promoting public open space with a healthy tree canopy. It is an investment in a higher quality of life for residents, visitors, and future generations. We seek to protect public open space because:

- It connects the community: Our parks and facilities are the public's common ground that equitably bring together our vibrant and diverse community.
- It improves well-being: Our programs and facilities motivate the community to make healthy choices and live active lifestyles through all stages of life and at all levels and abilities.
- It is an investment in our environment: Our commitment to natural spaces provides physical, mental, and community benefits, while offering opportunities to engage with and conserve our natural resources.

The City has achieved a tree canopy of 36 percent in 2016 and (planted about 800 trees per year over the last several years) and exceeded the 2009 goal of 100 new acres of open space (maintained a ratio of 7.3 acres per 1,000 residents). The EAP actions align with the Open Space Master Plan (2003, updated 2017) and the Recreation, Parks and Cultural Activities Strategic Plan to increase the tree canopy to 40 percent by 2035. The Department of Planning and Zoning development process supports the tree canopy and open spaces goals of this section and balances the private and public open space needs in Small Area Plans and in private and public development and non-development projects.

4.1 Tree Canopy

Goal Preserve and expand a healthy urban tree canopy.

Target By FY2035, average overall tree canopy is a minimum of 40 percent.

Short-Term Actions

- 4.1.1 By FY2023, update and coordinate the Urban Forestry Master Plan, Environmental and Sustainability Management System (ESMS), and Landscape Guidelines (updated in FY2019) to support increased tree preservation, expansion, maintenance, native species, and a revised tree canopy coverage goal.

Cost Estimate: \$40,000 per year

Cost Breakdown: \$30,000 - \$40,000 per year. \$30,000 for the yearly tree inventory study plus \$10,000 for the tree canopy survey scheduled for every three years. Existing staff resources are accounted for in current budget.

- 4.1.2 By FY2023, enlist City partnerships (community groups) to provide education and outreach that support technical assistance and opportunities to increase native tree canopy coverage on private property.

Cost Estimate: Existing staff resources

- 4.1.3 By FY2028, develop an urban forest health index rating system to determine the current and ongoing health and health needs of the urban forest in Alexandria.

Cost Estimate: \$100,000

- 4.1.4 By FY2028, develop a program that supports the planting of trees on private property, commit funding to establish the program and support ongoing implementation.

Cost Estimate: \$25,000/year

Long-Term Actions

Update the Urban Forestry Master Plan ten (10) years after approval in 2019.

- 4.1.5 By FY2029, update the Urban Forestry Master Plan to support increased tree preservation, expansion, maintenance, native species, and a revised tree canopy coverage goal.

Cost Estimate: \$30,000

4.2 Open space

Goal Increase open space quantity and improve the environmental quality, management, and social benefits of open space.

Target Maintain the ratio of 7.3 acres of publicly accessible open space per 1,000 residents.

Short-Term Actions

- 4.2.1 By FY2023, protect and add open space through acquisition, preservation, and conservation as prescribed in the Open Space Master Plan (updated 2017) and by FY2023, evaluate increasing the target to 7.5 acres per 1,000 residents. This includes, by FY2020, City Council will re-establish the open space steering committee to re-assess the methodology, evaluate, and prioritize potential open space sites. Tools to be considered for open space preservation or restoration will include purchase, easements, or repurposing land as funds can be made available, development occurs, or partnerships can facilitate.

Cost Estimate: The proposed FY20-29 CIP provides \$13,175,000 for Open Space acquisition and development. Any proposed changes to this funding will be evaluated through the Open Space Steering Committee's action findings.

Cost Breakdown: The action is also dependent on the development envisioned in small area plans, including city investments, developer contributions, and private philanthropic contributions.

- 4.2.2 By FY2023, increase the percentage of acres of public natural lands that are actively managed, including restoration and invasive species removal, by 50 percent (450 acres).

Cost Estimate: Existing staff resources

- 4.2.3 By FY2020, evaluate and update, using a public process, the requirements of open space on residential, commercial and mixed-use private development. Issues to be addressed include how to achieve meaningful and publicly accessible open space, particularly at the ground level, how to value developer contributions to off-site open space, how to minimize impervious surfaces, how to align vegetation requirements with canopy and native species goals described in Chapter 4.A.1. above; and, how to ensure consistency of open space requirements across similar zones.

Cost Estimate: Existing staff resources

Mid-Term Actions

- 4.2.4 By FY2028, identify tools and techniques through stream valley plans to maintain and enhance all of the City's stream valleys including public access points for ecological and recreational benefits. The plans will be updated every 10 years.

Cost Estimate: \$250,000/10 years (new request)

Cost Breakdown: Based on previous similar plans. Note, however, that this does not include plan implementation which will be determined based on findings of the plan.

- 4.2.5 By FY2028, seek publicly accessible open space opportunities in unconventional spaces:
- Further evaluate the City's network of public alleys and define those most appropriate for informal recreational use and/or green infrastructure improvements.
 - Work with Northern Virginia Conservation Trust to identify potential locations for conservations easements, particularly those that would connect or are adjacent to existing open spaces
 - Identify and map opportunities to re-purpose public rights-of-way and parking lots for other public-serving uses, including interim and/or permanent recreational use and open space, affordable housing, schools, or other public facilities.

- d. Protect and preserve institutional open space by:
 - i. Pursuing easements for trails and/or ecosystem corridors through institutional space to connect with public open space
 - ii. Develop mechanisms, possibly including incentives and processes for public/private partnerships to maintain and enhance natural areas on institutional land.

Cost Estimate: \$60,000/year (part of approved CIP)

Cost Breakdown: The City currently holds a contract with Northern Virginia Conservation Trust to advise on open space concerns and these action items can be added to our joint work plan.

Mid-Term Actions

~~4.2.6 Findings of the Open Space and Private Development Study, an EAP short term action scheduled for completion in June 2019, will inform EAP mid term actions. The study includes an investigation into issues of visibility/accessibility of open space in private development, the provision of rooftop open space, impervious cover, and characteristics of successful open space.~~

~~4.2.7 As noted in the short term action items, the City will establish an Open Space Steering Committee within the next year. The Committee will have a charge of work to re-assess the methodology, policies, and tools for evaluating future publicly accessible open space sites, whether through acquisition, easements, or development. Through this process, the work group will also evaluate the potential to increase the current open space ratio of 7.3 acres per 1,000 to 7.5 acres per 1,000. The findings of the Steering Committee will also direct Mid and Long Term actions.~~

Long term Action

~~4.2.8 Actions may be proposed as a result of the Open Space and Private Development Study in June 2019.~~

Justification

A healthy and diverse urban forest canopy coverage in Alexandria provides a broad range of environmental and social benefits such as reduced GHG emissions, improved air quality, enhanced property values, stormwater and flood mitigation, public health benefits, and vibrant public spaces. The reduction of GHG emissions improves air quality and contributes to health and wellness.

Legislative Priorities

Advocate for state legislation that would enable the City to expand tree protection and preservation and to increase tree canopy requirements.

Environmental Action Plan Phase 2
Green Building and Land Use and Open Space Chapters

Actions may be proposed as a result of the Open Space and Private Development Study in June 2019.

Accountable Parties

Recreation, Parks and Cultural Activities (primary); Planning and Zoning.

City of Alexandria, Virginia

MEMORANDUM

DATE: JUNE 12, 2019

TO: CHAIR MACEK AND MEMBERS OF THE PLANNING COMMISSION

FROM: KARL MORITZ, DIRECTOR, PLANNING & ZONING

SUBJECT: STAFF RESPONSE TO ENVIRONMENTAL POLICY COMMISSION
JUNE 10 COMMENTS ON THE PROPOSED PHASE 2 ENVIRONMENTAL
ACTION PLAN GREEN BUILDING CHAPTER

Issue

The Planning Commission voted on June 4 to defer review of the Green Building and Land Use and Open Space chapters¹ for Phase 2 of the Environmental Action Plan (EAP) until its June 25 meeting. The action to defer was done to provide time for staff to review and respond to the Environmental Policy Commission's (EPC) proposed amendments to the Green Building chapter actions submitted on June 4 to the Planning Commission, and to communicate the EPC-proposed amendments and staff's responses to the Green Building Task Force and to the public.

Although the EPC submitted proposed amendments to the Green Building chapter on June 4 to the Planning Commission, the EPC subsequently revised its proposed amendments and resubmitted them to staff on June 10, as attached. In the tables included on the subsequent pages of this memorandum, staff outlines the original Task Force-endorsed and staff recommended actions from the staff report, the EPC's proposed June 10 amendments, and staff's response and current recommendations for each of the EPC amendments.

Staff Recommendation

Staff organized the EPC's proposed amendments into the categories of Substantive, Time-related, and Rewording. In summary, the staff recommendations are as follows:

- Addition of Fiscal Year: For all actions, staff supports the EPC's recommendation to add the Fiscal Year (FY) date of completion. As stated in the overall EAP, the dates imply the end of each Fiscal Year (June 30) unless otherwise noted. For most actions, staff recommends adding the end of the FY range to allow flexibility for City work plan scheduling and ensure that each item is completed within the EAP-designated short, mid and long-term timeframes, which are as follows:
 - Short-term actions are to be accomplished between FY2019-FY2023;

¹ The EPC did not recommend amendments to the staff-proposed actions in the Land Use and Open Space chapter of the Phase 2 EAP. However, since this chapter was coupled with the Green Building chapter for the June 4 Planning Commission docket, the Planning Commission deferred both chapters to the June 25 meeting.

- Mid-term actions achieved between FY2024-FY2029; and
 - Long-term actions accomplished between FY2030- FY2040.
- Substantive EPC changes: Staff recommends retaining the original Task Force-endorsed actions included in the staff report with the exception of Item 2 where staff supports the EPC's interest in addressing NZE standards as proposed in the Green Building Policy and therefore eliminating potential redundancies in the actions.
 - Time-related EPC changes: The EPC-recommended changes advance a number of actions to the short-term timeframe or to the beginning of the mid-term timeframe. Staff recommends retaining the timing of the original Task Force-endorsed actions (by the end of FY2029) included in the staff report as these are items that require substantial study and program development.
 - Rewording EPC changes: Staff recommends maintaining the majority of the original Task Force-endorsed actions included in the staff report except for Items 11 and 12 (partial). With the exception of these two items, the language incorporated in the original actions is coordinated with existing City processes and consistent with the format of the overall EAP.

Overall, staff recommends approval of the Green Building and Land Use and Open Space chapters for Phase 2 of the Environmental Action Plan with the staff-recommended edits to the Green Building Chapter as shown on the following pages.

A. Substantive

1. Task Force endorsed action and Report language	EPC proposal
3.1.6. Establish incentive programs that encourage green building renovations for existing buildings, such as encouraging property owners and leasing agents to participate in a Green Lease Leader program.	<u>By March 30, 2020</u> , establish incentive programs that encourage green building renovations for existing buildings, such as encouraging property owners <u>to implement green building strategies aligned with renovation scope</u> and leasing agents to participate in a Green Lease Leader program.
<p>Staff recommendation: Maintain the existing language, with the addition of a fiscal year goal associated with short-term actions, given that encouraging green building renovations is already part of the action. Also, the City does not currently have the legal authority to review the scope of work for private renovations except through grading plan review (e.g.; sediment and erosion control plans) and by-right building permit review for compliance with the building code.</p> <p><u>By FY2023</u>, establish incentive programs that encourage green building renovations for existing buildings, such as encouraging property owners and leasing agents to participate in a Green Lease Leader program.</p>	

2. Task Force endorsed action and Report language	EPC proposal
3.1.8 Start a pilot program that includes documentation of the procurement/reporting process to construct one net zero energy (NZE) public building.	Start a pilot program that includes documentation of the procurement/reporting process to construct one net zero energy (NZE) public building.
3.1.12 Complete a pilot program to construct one net zero energy (NZE) public building.	Complete a pilot program to construct one net zero energy (NZE) public building.
<p>Staff recommendation: Staff supports the EPC's interest in addressing NZE standards as proposed in the Green Building Policy and by deleting the actions.</p> <p>Start a pilot program that includes documentation of the procurement/reporting process to construct one net zero energy (NZE) public building.</p> <p>Complete a pilot program to construct one net zero energy (NZE) public building.</p>	

3. Task Force endorsed action and Report language	EPC proposal
<p>3.1.16: Schedule future administrative updates to the Green Building Policy to coincide with changes in third-party certification, the revisions to the state Building Code and the implementation of programs established through the EAP actions, with major updates for City Council every 5-7 years as needed. To maintain alignment with the intent of this Policy, Performance Points may be adjusted over time to correspond with updates to the rating systems, revisions to the building code, and/or updates to state, federal, or other City policies. (long-term)</p>	<p><u>By 2028, require all new construction to be carbon neutral by 2030. (long-term)</u></p>
<p>Staff recommendation: Staff recommends maintaining the language in 3.1.16 as the long-term goal. The reasons are:</p> <ol style="list-style-type: none"> 1) Legislative authority would be needed to require all new construction to be carbon neutral as the City cannot require this through DSPs or DSUPs. 2) The Green Building Task Force did not consider carbon neutrality and the consultants did not recommend following this direction. The consultant-recommended strategies, endorsed by the Task Force as implemented in the proposed policy, which are ambitious and estimated to contribute substantially to the EAP's overall goals. 3) The Green Building Policy update is sets progressive standards through third-party rating systems and Net Zero Energy (NZE) for public buildings and ranks among the top policies for cities of similar size or density. Estimated environmental and quality of life impacts are significant as analyzed by the consultants and stated in the policy. The Task Force-endorsed and staff recommended action indicates that the City plans to evaluate major updates to the Green Building Policy every 5-7 years, providing an opportunity to evaluate carbon neutrality at these points in time. 4) Staff did not add a fiscal year end goal to this action as the action is understood to be a long-term, ongoing action and continue through 2040. 	

B. Time-related

4. Task Force endorsed action and Report language	EPC proposal
<p>Mid Term action 3.1.9: Evaluate regulatory incentives linked to specific green building performance measures for new private development:</p> <ul style="list-style-type: none"> ▪ Establishing a City-wide Green Zoning Overlay (e.g., incentivizing solar panels and wind turbines through additional building height or allowing floor area exclusions to accommodate passive design elements). ▪ The feasibility of permitting bonus building height and density (once affordable housing bonuses are first exhausted) for applying green building practices above those outlined in the new Green Building Policy. 	<p>Short-term action: <u>By the end of June 30, 2020</u>, evaluate regulatory incentives linked to specific green building performance measures for new private development:</p> <ul style="list-style-type: none"> ▪ Establishing a City-wide Green Zoning Overlay (e.g., incentivizing solar panels and wind turbines through additional building height or allowing floor area exclusions to accommodate passive design elements). ▪ The feasibility of permitting bonus building height and density (once affordable housing bonuses are first exhausted) for applying green building practices above those outlined in the new Green Building Policy.
<p>Staff recommendation: This action should remain as a mid-term action. Both initiatives – establishing a City Green Zoning Overlay and evaluating the feasibility of permitting bonus height and density without competing with the affordable housing incentive -- are extensive long-range work plan projects that would involve staff from several City departments and a public outreach process for each initiative. Further, major amendments to the Zoning Ordinance would be necessary.</p> <p>Staff recommends adding the end of the mid-term year range of FY2029 to allow flexibility for City work plan scheduling and to ensure that it is completed by the end of the mid-term.</p> <p><u>By FY2029</u>, evaluate regulatory incentives linked to specific green building performance measures for new private development:</p> <ul style="list-style-type: none"> ▪ Establishing a City-wide Green Zoning Overlay (e.g., incentivizing solar panels and wind turbines through additional building height or allowing floor area exclusions to accommodate passive design elements). ▪ The feasibility of permitting bonus building height and density (once affordable housing bonuses are first exhausted) for applying green building practices above those outlined in the new Green Building Policy. 	

5. Task Force endorsed action and Report language	EPC proposal
3.1.10 Establish a Performance Monitoring Program for private development as staffing resources become available to manage the Program and track green building certification through the development review process.	<u>By the end of FY2024</u> , establish a Performance Monitoring Program for private development as staffing resources become available to manage the Program and track green building certification through the development review process.
<p>Staff recommendation: Staff recommends adding the end of the mid-term year range of FY2029 to allow flexibility for City work plan scheduling for this long-range initiative and to ensure that it is completed by the end of the mid-term.</p> <p><u>By FY2029</u>, establish a Performance Monitoring Program for private development as staffing resources become available to manage the Program and track green building certification through the development review process.</p>	

6. Task Force endorsed action and Report language	EPC proposal
3.1.11 Evaluate the possibility of establishing a fee-in-lieu program for projects that are unable to comply with the Green Building Policy.	<u>By the end of FY2024</u> , evaluate the possibility of establishing a fee-in-lieu program for projects that are unable to comply with the Green Building Policy.
<p>Staff recommendation: Staff recommends adding the end of the mid-term year range of 2029 to allow flexibility for City work plan scheduling for this long-range initiative and to ensure that it is completed by the end of the mid-term.</p> <p><u>By FY2029</u>, evaluate the possibility of establishing a fee-in-lieu program for projects that are unable to comply with the Green Building Policy.</p>	

7. Task Force endorsed action and Report language	EPC proposal
3.1.15 Complete a study of feasibility and methods to achieve net zero energy in existing building renovations, including the ability to achieve LEED Zero or other applicable net-zero certification processes in existing LEED certified buildings.	<u>By the end of FY2024</u> , complete a study of feasibility and methods to achieve net zero energy in existing building renovations, including the ability to achieve LEED Zero or other applicable net-zero certification processes in existing for LEED certified buildings <u>or other applicable net-zero certifications.</u>
<p>Staff recommendation: Staff supports the editorial changes by the EPC and recommends adding the end of the mid-term year range of FY2029 to allow flexibility for City work plan scheduling for this long-range initiative and to ensure that it is completed by the end of the mid-term.</p> <p><u>By FY2029</u>, complete a study of feasibility and methods to achieve net zero energy in existing building renovations, including the ability to achieve LEED Zero or other applicable net-zero certification processes in existing for LEED certified buildings <u>or other applicable net-zero certifications.</u></p>	

C. Rewording

8. Task Force endorsed action and Report language	EPC proposal
3.1.3. Update the Concept 2 Development Plan Checklist to include a requirement for a preliminary compliance narrative that indicates the applicant development team is aware of the City’s Green Building Policy and understands how it is applied. (short-term)	<u>By the end of 2019</u> , update the Concept 2 Development Plan Checklist to include a requirement <u>for project teams</u> to submit a preliminary compliance narrative to staff that indicates the applicant development team is aware of the City’s Green Building Policy and understands how it is applied. (short-term)
<p>Staff recommendation: Staff recommends applying “fiscal years” for accomplishing actions to maintain consistency throughout the EAP Phase 2 document. It recommends this language as it is the responsibility of applicants, not project teams, to submit preliminary compliance narratives.</p> <p><u>By FY2020</u>, update the Concept 2 Development Plan Checklist to include a requirement for <u>applicants to submit</u> for a preliminary compliance narrative that indicates the applicant development team is aware of the City’s Green Building Policy and understands how it is applied.</p>	
9. Task Force endorsed action and Report language	EPC proposal
3.1.4. Update checkpoints within the development review process to track compliance with the Green Building Policy.	<u>By the end of 2019</u> , update checkpoints within the development review process to track compliance with the Green Building Policy.
<p>Staff recommendation: Staff recommends applying “fiscal years” for accomplishing actions to maintain consistency throughout the EAP Phase 2 document. Fiscal year 2020 is added:</p> <p>By <u>FY2020</u>, update checkpoints within the development review process to track compliance with the Green Building Policy.</p>	
10. Task Force endorsed action and Report language	EPC proposal
<p><i>Cost Estimate:</i> \$120,000</p> <p><i>Cost Breakdown:</i> One FTE to implement and manage Actions 3.1.7 through 3.1.16</p>	<u>By FY2021</u> , the City shall create and staff a Green Building Director position in the Department of Planning and Zoning to work with the development community and building owners to support the implementation of the Green Building Policy.
<p>Staff recommendation: Staff recommends following the framework of all other EAP Phase 2 chapters, listing cost estimates and cost breakdowns after every action, rather than establishing a standalone action for cost estimates and cost breakdowns.</p> <p>On page 12 of the staff report, the cost estimate and cost breakdown already reference the hiring of a full time employee working as a green building program manager, rather than a director (which</p>	

implies creation of a new City division in P&Z)), to manage the mid and long-term actions and coordinate with applicants for compliance with the policy. The timing of the hiring would likely occur near the beginning of the mid-term action time range of FY2024.

11. Task Force Endorsed Action and Report language	EPC proposal
<p>3.1.5. Update standard development conditions for projects subject to the new Policy to include the following topics:</p> <ul style="list-style-type: none"> • Staff access to performance data • Sub-metering of EV charging stations (so that whole-building metering is not affected) • Optional energy metering in multifamily and hotel developments • Optional enhanced commissioning measures in private development 	<p><u>By the end of 2019</u>, update standard development conditions for projects subject to the new Policy to include the following topics:</p> <ul style="list-style-type: none"> ▪ Staff access to <u>post construction energy and water</u> performance data ▪ Sub-metering of EV charging stations (so that whole-building metering is not affected) ▪ Optional <u>Consideration of</u> energy metering in multifamily and hotel developments ▪ Optional <u>Consideration of</u> enhanced commissioning measures in private development
<p>Staff recommendation: Staff recommends applying “fiscal years” for accomplishing actions to maintain consistency throughout the EAP Phase 2 document and incorporating the EPC language recommendation.</p> <p><u>By FY2020</u>, update standard development conditions for projects subject to the new Policy to include the following topics:</p> <ul style="list-style-type: none"> ▪ Staff access to <u>post construction energy and water</u> performance data ▪ Sub-metering of EV charging stations (so that whole-building metering is not affected) ▪ Optional <u>Consideration of</u> energy metering in multifamily and hotel developments ▪ Optional <u>Consideration of</u> enhanced commissioning measures in private development 	

12. Task Force Endorsed Action and Report language	EPC proposal
<p>3.1.7 Establish a process for evaluating Net Zero Energy standards in new public buildings, including applicable guidelines, standards, and rating systems</p> <p>3.1.13 Establish a standardized process for NZE public buildings city-wide.</p> <p>3.1.14 Investigate the feasibility of performance-based procurement for the NZE construction of public buildings.</p>	<p><u>By March 30, 2020, commit to build all new public building projects in design development after August 2019 Net Zero Energy (NZE).</u></p> <ul style="list-style-type: none"> ▪ <u>Establish a standardized process for recognizing and celebrating NZE buildings city-wide.</u> ▪ <u>Establish a standardized method to document the procurement, design and construction of NZE buildings to serve as a resource for future development.</u> ▪ <u>Evaluate NZE guidelines, standards, and rating systems.</u> ▪ <u>Investigate the feasibility of using performance-based procurement for construction of public buildings.</u>
<p>Staff recommendation:</p> <p>1) As implemented through the Green Building Policy, all development applications submitted by the effective date of implementation, March 2, 2020 will need to comply with the standards of the Policy. These projects will prepare concept plans in the summer/fall of 2019 that address the new policy standards after the anticipated policy adoption in June 2019. Further, “design development” is a private development construction plan process and not a standard City plan review stage and any recommendations of the EAP Green Building chapter that reference a plan review process should correspond with City processes. Therefore, a requirement of “...new public building projects in design development after August 2019 Net Zero Energy” does not align with the policy and the development plan review process.</p> <p>2) Other EAP actions that relate to education of green building practices and public events associated with green buildings have been placed in the EAP Phase 2 Education/Outreach and Implementation chapter. Staff recommends including, “Establish a standardized process for recognizing and celebrating NZE buildings city-wide.” in that chapter.</p> <p>Staff recommends the following language proposed by the EPC for action 3.1.7 and supports deleting actions 3.1.13 and 3.1.14.</p> <p><u>By FY2023, continue implementation of the Green Building Net Zero standards, and:</u></p> <ul style="list-style-type: none"> ▪ <u>Establish a standardized method to document the procurement, design and construction of NZE buildings to serve as a resource for future development;</u> ▪ <u>Evaluate NZE guidelines, standards, and rating systems; and</u> ▪ <u>Investigate the feasibility of using performance-based procurement for construction of public buildings.</u> <p>3.1.7 Establish a process for evaluating Net Zero Energy standards in new public buildings, including applicable guidelines, standards, and rating systems</p> <p>3.1.13 Establish a standardized process for NZE public buildings city wide.</p> <p>3.1.14 Investigate the feasibility of performance-based procurement for the NZE construction of public buildings.</p>	

13. Task Force Endorsed Action and Report language	EPC proposal
<p>3.1.16: Schedule future administrative updates to the Green Building Policy to coincide with changes in third-party certification, the revisions to the state Building Code and the implementation of programs established through the EAP actions, with major updates for City Council every 5-7 years as needed. To maintain alignment with the intent of this Policy, Performance Points may be adjusted over time to correspond with updates to the rating systems, revisions to the building code, and/or updates to state, federal, or other City policies. (long-term)</p>	<p><u>By the end of FY2024, establish and communicate to stakeholders a formal 5 year update process for the Green Building Policy. (mid-term)</u></p> <p><u>By the end of FY2024, establish a process to update the Green Building Policy to coincide with changes in referenced third-party certifications, revisions to the state Building Code, changes to federal regulation, changes to City policy and implementation of programs established through the EAP. (mid-term)</u></p>
<p>Staff recommendation: Staff finds the existing Task Force-endorsed and staff recommended action to comprehensively cover the two actions proposed by the EPC. A 5-7 year time frame accounts for the amount of time needed to construct a new building after City Council approval and additional time beyond building occupancy to assess the impacts of policy implementation. It is important to maintain this as a long-term action to allow for several 5-7 year cycles of major updates to occur up to 2040, rather than expire after the mid-term action end year of 2029. Staff incorporated the EPC's reference to stakeholders as members of a Green Building Policy Task Force, who would recommend policy updates every 5-7 years in the amended action below.</p> <p>3.1.16: Schedule future administrative updates to the Green Building Policy to coincide with changes in third-party certification, the revisions to the state Building Code and the implementation of programs established through the EAP actions, <u>with major updates as recommended by a Green Building Task Force for City Council consideration</u> every 5-7 years as needed. To maintain alignment with the intent of this Policy, Performance Points may be adjusted over time to correspond with updates to the rating systems, revisions to the building code, and/or updates to state, federal, or other City policies. (long-term)</p>	

The staff recommend actions, with the edits provided in the charts above, are provided in chronological order on the following pages.

3.1 Green Building Policy

Update will be considered by the Planning Commission and City Council in June 2019. Mid- and long-term actions for the Phase II Update of the Environmental Action Plan is being developed concurrently with the outcome of this update.

Short-Term Actions

3.1.1 Review the effectiveness of the current Green Building Policy and update the Policy in FY2019 with a focus on sustainable strategies that have the greatest impact toward achieving targets across EAP principle areas. The Task Force deliberations will inform the medium and long-term EAP actions for Green Buildings. Through this process, with support of third-party consultant analysis, the update will consider topics such as:

- Increasing LEED or equivalent third-party green building certification standards for private development;
- Establishing a separate green building standard, which includes evaluating the feasibility of a net zero standard where applicable, for new public development, including schools in collaboration with ACPs;
- Establishing incentives for private development participation in green building certifications, to achieve the quantifiable goals for GHG emissions and water use and stormwater runoff reduction established in the EAP;
- Prioritizing specific green building elements;
- Introducing mandatory and/or voluntary green building practices for existing buildings (including historic) and for small buildings not subject to site plan review;
- Instituting a building performance monitoring program;
- The City's ability to be more ambitious than the private sector in meeting green building goals to serve as a sustainability leader, and
- Establishing a Green Zone in the City per the legislative authority of 58.1-3854, Creation of local green development zones for tax incentives, permit fees, special zoning, and exemption from ordinances.

As part of this process, a Green Building Policy Update Task Force will be established by City Council. The Task Force, with critical input from the EPC and the development community, will determine the actual topics to be analyzed by the consultant.

Cost Estimate: \$75,000

Cost Breakdown: The funds will be used for consultant studies on policy analysis on a cost analysis. Does not include staff time.

- 3.1.2. By FY2020, evaluate additional sustainable features to incorporate into the “Building Section” of the standard development conditions for the Development Site Plans (DSP) and Development Special Use Permits (DSUP) that will contribute toward achieving targets across EAP principle areas.

Cost Estimate: Existing staff resources

NEW Short-Term Actions:

- 3.1.3. By FY2020, update the Concept 2 Development Plan Checklist to include a requirement for applicants to submit ~~for~~ a preliminary compliance narrative that indicates the applicant development team is aware of the City’s Green Building Policy and understands how it is applied.

Cost Estimate: Existing staff resources

- 3.1.4. By FY2020, update checkpoints within the development review process to track compliance with the Green Building Policy.

Cost Estimate: Existing staff resources

- 3.1.5. By FY2020, update standard development conditions for projects subject to the new Policy to include the following topics:

- Staff access to post construction energy and water performance data
- Sub-metering of EV charging stations (so that whole-building metering is not affected)
- ~~Optional~~ Consideration of energy metering in multifamily and hotel developments
- ~~Optional~~ Consideration of enhanced commissioning measures in private development

Cost Estimate: Existing staff resources

- 3.1.6. By FY2023, establish incentive programs that encourage green building renovations for existing buildings, such as encouraging property owners and leasing agents to participate in a Green Lease Leader program.

Cost Estimate: Existing staff resources

- 3.1.7. By FY2023, continue implementation of the Green Building Net Zero standards, and:

- Establish a standardized method to document the procurement, design and construction of NZE buildings to serve as a resource for future development;
- Evaluate NZE guidelines, standards, and rating systems; and
- Investigate the feasibility of using performance-based procurement for construction of public buildings.

Cost Estimate: Existing staff resources

~~3.1.8 Start a pilot program that includes documentation of the procurement/reporting process to construct one net zero energy (NZE) public building.~~

~~*Cost Estimate:* Existing staff resources~~

Mid-Term Actions

~~3.1.9~~ 8. By FY2029, evaluate regulatory incentives linked to specific green building performance measures for new private development:

- Establishing a City-wide Green Zoning Overlay (e.g., incentivizing solar panels and wind turbines through additional building height or allowing floor area exclusions to accommodate passive design elements).
- The feasibility of permitting bonus building height and density (once affordable housing bonuses are first exhausted) for applying green building practices above those outlined in the new Green Building Policy.

~~3.1.10~~ 9. By FY2029, establish a Performance Monitoring Program for private development as staffing resources become available to manage the Program and track green building certification through the development review process.

~~3.1.11~~ 10. By FY2029, evaluate the possibility of establishing a fee-in-lieu program for projects that are unable to comply with the Green Building Policy.

~~3.1.12. Complete a pilot program to construct one net zero energy (NZE) public building.~~

~~3.1.13 Establish a standardized process for NZE public buildings city wide.~~

~~3.1.14 Investigate the feasibility of performance based procurement for the NZE construction of public buildings.~~

~~3.1.15~~ 11. By FY2029, complete a study of feasibility and methods to achieve net zero energy in existing building renovations, including the ability to achieve LEED Zero or other applicable net-zero certification processes in existing for LEED certified buildings or other applicable net-zero certifications.

Long-Term Action

~~3.1.16~~ 12. Schedule future administrative updates to the Green Building Policy to coincide with changes in third-party certification, the revisions to the state Building Code and the implementation of programs established through the EAP actions, with major updates as recommended by a Green Building Task Force for City Council consideration every 5-7 years as needed. To maintain alignment with the intent of this Policy, Performance Points may be adjusted over time to correspond with updates to the rating systems, revisions to the building code, and/or updates to state, federal, or other City policies.

All Actions

Cost Estimate: \$120,000

Cost Breakdown: One FTE to implement and manage Actions 3.1.7 through 3.1.16
12

Legislative Priorities

1. Enable local jurisdictions to require energy performance disclosure by private building owners and/or utility companies.
2. Advocate for local building code authority to create, implement, and enforce a local green building code.

Justification

Green building practices are an important instrument in reducing GHG emissions and energy use, potable water consumption, raw materials use, and waste output. Green Building methods also contribute to increased air quality, reduced storm water pollution, reduced energy demands, and economic sustainability.

Accountable Parties

Planning and Zoning (primary); General Services; Office of Housing; Code Administration; Transportation and Environmental Services (EV charging and stormwater); Office of Management and Budget (performance procurement process).

EPC comments on new actions for Green Building section of the Environmental Action Plan

Proposals for New Language:

- Green Building Staff Position: We join the Green Building Task Force in urging the City to establish and fund a city green building staff position to support the implementation of the Green Building Policy as well as the short, medium and longterm goals of the Environmental Action Plan. Arlington County has a green building team committed to working with developers and citizens to support their green building objectives. Given our environmental ambitions, we need a similar resource in Alexandria. We ask that the Planning Commission join this effort by recommending to Council that such a position be added to the Green Building section of the EAP. EPC proposes this language as a NEW short-term action:
 - 3.1.X - By FY2021, the City shall create and staff a Green Building Director position in the Department of Planning and Zoning to work with the development community and building owners to support the implementation of the Green Building Policy.
- Add dates to all actions in EAP
- 2030 Carbon Neutral Goal: The original EAP from 2009 included a long-term action to “Require all new construction be carbon neutral by 2030.” That recommendation was left out of staff’s updated long-term recommendations and should be added back into the EAP 2040. This goal was recently reaffirmed in both the Small Area Plans for Old Town North and North Potomac Yard. EPC proposes this language as a NEW long-term action:
 - 3.1.X - Require all new construction to be carbon neutral by 2030.

Proposals to *substantively* modify existing language:

- Actions 3.1.7, 3.1.8, 3.1.12, 3.1.13, 3.1.14 - add restatement of net zero goal from Green Building Policy and consolidate short and mid-term actions related to net zero buildings under one new sub-bulleted *short-term* action as follows:
 - 3.1.X - Commit to build all new public building projects in design development after August 2019 Net Zero Energy (NZE)
 - **restatement of GB policy goal and acceleration of 3.1.12**
 - Establish a standardized process for recognizing and celebrating NZE buildings city-wide.
 - **clarification of 3.1.7**
 - Establish a standardized method to document the procurement/design/construction of NZE buildings to serve as a resource for future development
 - **restatement and clarification 3.1.8**
 - Evaluate Net Zero Energy guidelines, standards, and rating systems.
 - **restatement, clarification and acceleration of 3.1.13**
 - Investigate the feasibility of using performance-based procurement for construction of public buildings
 - **restatement and acceleration of 3.1.14**
 - **Cost Estimate:** Existing staff resources

- 3.1.9 - convert into short term action
- 3.1.16 – split into two separate actions to disaggregate formal update cycle for on-going Green Building Policy maintenance and shift from mid to short-term.
 - 3.1.X – Establish and communicate to stakeholders a formal 5-year update process for the Green Building Policy:
 - Narrows proposed 5-7 year update cycle from 3.1.16 to a specific timeline
 - 3.1.X – Establish a procedure to update the Green Building Policy to coincide with changes in third-party certification, revisions to the state Building Code and implementation of programs established through the EAP actions. To maintain alignment with the intent of this Policy, Performance Points may be adjusted over time to correspond with updates to the rating systems, revisions to the building code, and/or updates to state, federal, or other City policies.
 - clarifies scope of on-going Green Building Policy maintenance in 3.1.16

Proposals to *editorially clarify* existing language:

- 3.1.3 – add language to clarify that Development Plan Checklist must be submitted to staff
- 3.1.5 - add language to clarify performance data is related to energy and water and clarify language related to enhanced commissioning and energy metering
- 3.1.6 – add language to clarify and encourage implementation of green building strategies within project scope
- 3.1.12 – align language with Green Building Policy
- 3.1.15 – clarify language

NEW Short-Term Actions:

3.1.3. Update the Concept 2 Development Plan Checklist to include a requirement for project teams to submit a preliminary compliance narrative to staff that indicates the applicant development team is aware of the City's Green Building Policy and understands how it is applied.

Cost Estimate: Existing staff resources

To be completed by end of 2019

3.1.4. Update checkpoints within the development review process to track compliance with the Green Building Policy.

Cost Estimate: Existing staff resources

To be completed by end of 2019

3.1.5. Update standard development conditions for projects subject to the new Policy to include the following topics:

- Staff access to post construction energy and water performance data
- Sub-metering of EV charging stations (so that whole-building metering is not affected)
- ~~Optional Consideration of~~ energy metering in multifamily and hotel developments
- ~~Optional Consideration of~~ enhanced commissioning measures in private development

Cost Estimate: Existing staff resources

To be completed by end of 2019

3.1.6. Establish incentive programs that encourage green building renovations for existing buildings, such as encouraging property owners to implement green building strategies aligned with renovation scope and leasing agents to participate in a Green Lease Leader program.

Cost Estimate: Existing staff resources

To be completed by March 30, 2020

3.1.7 Commit to build all new public building projects in design development after August 2019 Net Zero Energy (NZE).

- Establish a standardized process for recognizing and celebrating NZE buildings city-wide.
- Establish a standardized method to document the procurement, design and construction of NZE buildings to serve as a resource for future development.
- Evaluate NZE guidelines, standards, and rating systems.
- Investigate the feasibility of using performance-based procurement for construction of public buildings.

~~Establish a process for evaluating Net Zero Energy standards in new public buildings, including applicable guidelines, standards, and rating systems.~~

Cost Estimate: Existing staff resources

To be completed by March 30, 2020

~~3.1.8 Start a pilot program that includes documentation of the procurement/reporting process to construct one net zero energy (NZE) public building.~~

Mid Term Actions

3.1.9 Evaluate regulatory incentives linked to specific green building performance measures for new private development:

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- Establishing a City-wide Green Zoning Overlay (e.g., incentivizing solar panels and wind turbines through additional building height or allowing floor area exclusions to accommodate passive design elements).
- The feasibility of permitting bonus building height and density (once affordable housing bonuses are first exhausted) for applying green building practices above those outlined in the new Green Building Policy.

To be completed by end of June 30, 2020

NEW SHORT TERM ACTION PROPOSED

3.1.X The City shall create and staff a Green Building Director position in the Department of Planning and Zoning to work with the development community and building owners to support the implementation of the Green Building Policy.

To be completed by end of FY2021

Mid-Term Actions

3.1.10 Establish a Performance Monitoring Program for private development as staffing resources become available to manage the Program and track green building certification through the development review process.

To be completed by end of FY2024

3.1.11 Evaluate the possibility of establishing a fee-in-lieu program for projects that are unable to comply with the Green Building Policy.

To be completed by end of FY2024

~~3.1.12 Complete a pilot program to construct one net zero energy (NZE) public building.~~

~~3.1.13 Establish a standardized process for NZE public buildings city wide.~~

~~3.1.14 Investigate the feasibility of performance-based procurement for the NZE construction of public buildings.~~

3.1.15 Complete a study of feasibility and methods to achieve net zero energy in existing building renovations, including the ability to achieve LEED Zero ~~or other applicable net-zero certification processes in existing~~ for LEED certified buildings ~~or other applicable net-zero certifications.~~

To be completed by end of FY2024

Long Term Action

3.1.16 Establish and communicate to stakeholders a formal 5 year update process for the Green Building Policy

To be completed by end of FY2024

~~3.1.X Schedule future administrative~~ Establish a process to -updates to the Green Building Policy to coincide with changes in referenced third-party certifications, the revisions to the state Building Code, changes to federal regulation, changes to City policy and the implementation of programs established through the EAP, actions, with major updates for City Council every 5-7 years as needed. To maintain alignment with the intent of this Policy, Performance Points may be adjusted

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~~over time to correspond with updates to the rating systems, revisions to the building code, and/or updates to state, federal, or other City policies.~~

~~To be completed by end of FY2024~~

Long-Term Action

NEW LONG TERM ACTION PROPOSED

3.1.X Require all new Construction to be carbon neutral by 2030

To be completed by end of FY2028



June 4, 2019

Alexandria Planning Commission
301 King Street
Alexandria, VA 22314

Re: Environmental Policy Commission recommendations on Docket Items #6 and #8

Dear Chair Macek and Members of the Planning Commission:

EPC appreciates the time and effort of the Green Building Task Force in updating the City's Green Building Policy (Docket #6) and is encouraged by the direction the revised policy takes public and private development in Alexandria. We also appreciate staff's recommendations for additional short, medium, and long-term actions in the proposed Green Building Section of the Environmental Action Plan (Docket #8).

While we applaud the general outcome of both policy documents, we believe that they should be strengthened in a few places to deliver performance outcomes aligned with the City's ambitious sustainability goals and, in particular, its commitment to combat climate change.

Docket #6

We propose the following change to the proposed Green Building Policy 2019:

1. **Net Zero Energy for Public Buildings:** The EPC believes strongly that the City should pursue a net zero energy goal for all new public buildings without qualification. There are now several completed or planned net zero energy projects in Arlington County, Washington, D.C., and many other parts of the country.

To that end, we recommend deleting the "unless" clause below, which provides three separate policy exceptions to the net zero energy goal for public buildings. Providing so many qualifications of the goal undermines the strength of the policy objective. While we recognize that there may be circumstances that could constrain full achievement of the objective, the policy as drafted already contains a section called "Flexibility" that provides the Director of Planning and Zoning limited discretion to allow exceptions to the policy:

*In addition to the minimum level of certification and the designated Performance Points, public development will meet the following criteria **unless it is technically infeasible, not cost effective, or situationally inappropriate**:*

2. **Definition of Net Zero Energy:** Net Zero Energy in the Green Building Policy should be defined in line with the U.S. Department of Energy's definition:

An energy-efficient building where, on a source energy basis, the actual annual delivered energy is less than or equal to the on-site renewable exported energy¹.

Docket #8:

We propose the following changes to the proposed Green Building section of the Environmental Action Plan. Note that, for clarity, the EPC is also attaching as a separate Appendix a fully redacted version of the short, medium and long-term goals, which includes some additional minor changes not explained in detail below:

Short Term Actions:

- 1. Green Building Staff Position:** We join the Green Building Task Force in urging the City to establish and fund a city green building staff position to support the implementation of the Green Building Policy as well as the short, medium and long-term goals of the Environmental Action Plan. Arlington County has a green building team committed to working with developers and citizens to support their green building objectives. Given our environmental ambitions, we need a similar resource in Alexandria. We ask that the Planning Commission join this effort by recommending to Council that such a position be added to the Green Building section of the EAP as a short-term action to be completed by FY2021:

By FY2021, the City shall create and fill a Green Building Director position in the Department of Planning and Zoning to work with the development community and building owners to support the implementation of the Green Building Policy.

- 2. Strengthen and Consolidate Net Zero Energy Actions:** We recommend strengthening and consolidating the proposed short-term actions on net zero energy buildings in a new 3.1.7 to read as follows:

Commit to build all new public building projects Net Zero Energy (NZE) for all projects not in design development by August 2019.

- *Evaluate Net Zero Energy guidelines, standards, and rating systems.*
- *Investigate the feasibility of using performance-based procurement for construction of public buildings*
- *Establish a standardized process for recognizing and celebrating NZE buildings city-wide.*
- *Establish a standardized method to document the procurement/design/construction of NZE buildings to serve as a resource for future development*
- *Cost Estimate: Existing staff resources*

- 3. Add Fiscal Year Goals for Each Action:** In contrast to all other sections of the proposed EAP 2040, staff's recommendations do not include specific fiscal year dates for completion of the short or medium-term actions. EPC recommends that the City assign specific dates for each target action consistent with the rest of the EAP and has proposed dates in the Appendix.

¹ https://www.energy.gov/sites/prod/files/2015/09/f26/bto_common_definition_zero_energy_buildings_093015.pdf

4. **Move Regulatory Incentives from Medium Term to Short Term Actions:** We recommend moving mid-term goal 3.1.9 into the short-term action section and completing by FY2023. The EPC believes that the City should be designing incentives to help private developers exceed the goals of the new green building policy and that the addition of a full-time green building staff person (see recommendation 1) should accelerate the City's ability to evaluate and implement such incentives in the short term.

Medium Term Action:

1. **5-Year Update Cycle of the Green Building Policy:** We recommend editing long-term action 3.1.16 to set a goal for the Green Building Policy to be updated "at least every 5 years" and moving the action into the medium-term action section. Given changing green building practices and technologies, the EPC believes that the policy should be comprehensively reviewed at least every 5 years.

Long Term Actions:

1. **2030 Carbon Neutral Goal:** The original EAP from 2009 included a long-term action to "Require all new construction be carbon neutral by 2030." That recommendation was left out of staff's updated long-term recommendations and should be added back into the EAP 2040. This goal was recently reaffirmed in both the Small Area Plans for Old Town North and North Potomac Yard.

Require all new construction to be carbon neutral by 2030.

EPC appreciates the Planning Commission's consideration of our input and your commitment to a sustainable Alexandria.

Sincerely,



Jim Kapsis
Vice Chair
Alexandria Environmental Policy Commission

New Short Term Actions

- 3.1.3. Update the Concept 2 Development Plan Checklist to include a requirement for projects to submit a preliminary compliance narrative that indicates the applicant development team is aware of the City's Green Building Policy and understands how it is applied.
 - Cost Estimate: Existing staff resources
- 3.1.4. Update checkpoints within the development review process to track compliance with the Green Building Policy.
 - Cost Estimate: Existing staff resources
- 3.1.5. Update standard development conditions for projects subject to the new Policy to include the following topics:
 - Staff access to post construction energy and water performance data
 - Sub-metering of EV charging stations (so that whole-building metering is not affected)
 - ~~Optional~~ Energy metering in multifamily and hotel developments
 - ~~Optional~~ Enhanced commissioning measures in private development
 - Cost Estimate: Existing staff resources
- 3.1.6. Establish incentive programs that encourage green building renovations for existing buildings, such as encouraging property owners to implement green building strategies within project scope and leasing agents to participate in a Green Lease Leader program.
 - Cost Estimate: Existing staff resources
- ~~3.1.7 Establish~~ Commit to build all new public building projects a Net Zero Energy (NZE) for all projects not in design development by August 2019.
 - ~~process for~~ Evaluating Net Zero Energy standards in new public buildings, including applicable guidelines, standards, and rating systems.
 - ~~Investigate the feasibility of using performance-based procurement for construction of public buildings~~
 - ~~Establish a standardized process for recognizing and celebrating NZE buildings city-wide.~~
 - ~~Establish a standardized method to document the procurement/design/construction of NZE buildings to serve as a resource for future development~~
 - Cost Estimate: Existing staff resources
- 3.1.8 Evaluate regulatory incentives linked to specific green building performance measures for new private development:
 - Establishing a City-wide Green Zoning Overlay (e.g., incentivizing solar panels and wind turbines through additional building height or allowing floor area exclusions to accommodate passive design elements).
 - The feasibility of permitting bonus building height and density (once affordable housing bonuses are first exhausted) for applying green building practices above those outlined in the new Green Building Policy.
- ~~3.1.8 Start a pilot program that includes documentation of the procurement/reporting process to construct one net zero energy (NZE) public building.~~

Mid-Term Actions

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Statement to the Planning Commission at June 4 meeting

Members of the Planning Commission:

I have written formally to the Green Building Task Force, and my letter is attached in the docket item, so I won't go into those details again now. I want to speak here more about the larger issues.

I know that each of you have busy lives and you give a tremendous amount of your time to your work on this board. I know that you – and the city staff, and the members of the EPC—all are trying to do the right thing. I know that you are trying to balance all of the interests around the issue of greenbuilding: building owners, taxpayers, the city budget allocations, and the commitments made under the EcoCity charter. You have labored hard to come up with this compromise that satisfies those interests.

But there is one interest that has not been at the table during this process: that of the unborn generations that will come after us. I am asking you now to stand back for a moment from all the particulars of this policy, and consider those generations' interests in light of the 2018 IPCC Climate Report.

That report told us that we have ten to twelve years to cut fossil emissions by 50% or more. When that window is closed the critical tipping points will have passed and human actions will no longer have the ability to stop runaway climate change. Not to be melodramatic, but never before have the short term actions of governments and individuals had the power to control the destiny of life on this planet as do ours in these next twelve years.

This is an existential crisis we are in. Yet I see no evidence of this urgency in the 2019 Green Building Plan. Reading it, you get the sense that we are doing this because Green Buildings are a good thing, not because our species is threatened with extinction.

According to the IPCC, a key component in avoiding the catastrophe we are now on track for is to make all buildings – new and especially existing –zero energy in this twelve year window. That is, by 2030. This is the basis of the green building standards now being enacted in DC, New York and other cities. This is why the over half the architecture firms in the country have embraced the Architecture 2030 Challenge. This is why the AIA is voting this week on a resolution for “urgent and sustained climate action.” This is why the Department of Energy has developed the its Zero Energy Ready Home standard and has worked with the Passive House Institute to develop the PHIUS+2018 standard for commercial and institutional buildings. The policy you are considering today falls short of these energy goals.

Laudably, it requires all city-owned buildings to be net zero. But, the policy states no specific goal for the entire built environment of Alexandria. It offers a smorgasbord of standards, but doesn't tell us where they will get us and when. Any effective plan must derive from a clear goal and a date. The IPCC 2018 report does not give us a choice; the goal has to be zero net carbon emissions from Alexandria buildings by 2030.

The plan before you leaves a lot of wiggle room even in its net zero requirements, offering an out to any project that is deemed “technically unfeasible, not cost effective, or situationally inappropriate.” Lawyers could have a field day with that. Then there is the “flexibility” clause, offering another way of avoiding compliance. Both these loopholes imply that the Green Building Plan is aspirational, not a true commitment.

In the end, the only arguments against a 2030 Net Zero Alexandria policy are about costs and priorities. Most of the cost concerns are specious, once leveraged energy savings are factored into the equation.

Regarding priorities, yes, affordable housing is a priority. Yes, all other city departments’ needs are priorities. But the priority of reducing carbon emissions transcends all of these. Because if we don’t act boldly and quickly on carbon, everything else is threatened.

While the public remains to a large degree unresponsive to the urgency, you in positions of public policy and responsibility have an obligation to educate yourselves, educate the public, and act on this existential issue. If you take that obligation seriously, you will send this plan back for revisions, and place the city on a course to make all Alexandria buildings net zero energy by 2030. This will take strong leadership, but that is why you and our City Council members were put in the positions they are in.

It comes down to this: do you want to look back and tell your grandchildren “we tried, but this was the best we could do for you because we had to balance all the interests of the developers and the building industry and other city programs. Or do you want to look back and say, “this is where we drew the line and acted for you, and for your grandchildren, and set the course for all buildings in Alexandria to be zero energy by 2030.”

I urge you to heed the voices of Greta Thunberg and the yet unborn generations and revise this plan to meet this clear and essential goal.