



SUSTAINABILITY COORDINATION & COMMUNICATION AND OUTREACH

Charles Egli



TABLE OF CONTENTS

.....	1
1 Background	1
1.1 Relevance	1
1.2 Policies and Actions in Original Eco-City Charter and Environmental Action Plan	1
1.2.1 Sustainability Coordination	2
1.2.2 Communication and Outreach	2
1.3 Actions Taken by City/EPC	3
1.3.1 Sustainability Coordination	3
1.3.2 Communication and Outreach	3
1.4 EPC Intent for Next Iteration of EAP	5
1.5 Overview of Policy Brief Process	5
2 Overview of Topic	6
2.1 General Discussion	6
2.2 Primary Policy/Programmatic Elements	6
3 Snapshot of Sustainability Policy/Program Innovation Relevant for the City of Alexandria	7
3.1 Sustainability Champion and Pursuit of Grant Funds (examples from Alexandria, VA and Charlottesville, VA)	8
3.1.1 Applicable Policy/Programmatic Elements	8
3.1.2 Description	8
3.1.3 Recommendations for Alexandria	10
3.2 Involvement in Regional Partnerships and Sustainability Associations (Examples from Evanston, IL; Charlottesville, VA; and the Urban Sustainability Director’s Network: Houston, TX, and Southeast Michigan)	10
3.2.1 Applicable Policy/Programmatic Elements	10
3.2.2 Description	11
3.2.3 Recommendations	12
3.3 Work with a Non-Profit Organization to Meet Sustainability Goals (Example from Arlington, VA)	12
3.3.1 Applicable Policy/Programmatic Elements	12
3.3.2 Description	12
3.3.3 Recommendations for Alexandria	14

3.4	Annual Convening of City and Community Leaders to Discuss Sustainability Efforts (Example from Santa Monica, CA)	14
3.4.1	Applicable Policy/Programmatic Elements	14
3.4.2	Description	14
3.4.3	Recommendation for Alexandria	15
3.5	Highlighting Success Stories (Examples from Santa Monica, CA and Baltimore, MD)	16
3.5.1	Applicable Policy/Programmatic Elements	16
3.5.2	Description	16
3.5.3	Recommendation for Alexandria	17
4	Additional Discussion of Sustainability Coordination and Communication and Outreach Best Practices and Recommendations.....	17
4.1	Sustainability Coordination.....	17
4.1.1	Consider the Variety of Options Available for Funding a Sustainability Coordinator.....	17
4.1.2	Consider Experimenting with a Sustainability Coordinator to Help Make the Case for a Full-Time Position	19
4.1.3	If Hiring a Full-Time Sustainability Coordinator Isn't possible, Consider Alternatives	19
4.1.4	The Sustainability Coordinator Needs to Be Situated in a Place in the City Government That He/She Has Sufficient Influence	20
4.1.5	Use of the Term Sustainability Coordinator vs. Sustainability Manager	20
4.1.6	Sustainability Coordinators Must Strive to Add Value.....	21
4.2	Communication and Outreach.....	21
4.2.1	Fully Utilize Key Existing Tools and Resources	21
4.2.2	Consider Additional Strategies for Promoting Outreach Efforts	22
4.2.3	Education of the Community, Particularly School Students, Must Be a Priority	23
4.2.4	Build a Volunteer Base to Further Engage the Community on Sustainability	24
5	Conclusion.....	24
	Appendix A: Review of Eco-City Charter and EAP.....	1
	Appendix D: Other Resources	2
	Appendix E: Overview of Sustainability Offices Interviewed.....	0
	Appendix F: Recommendations for Social Media	0
	Endnotes	1

1 Background

1.1 Relevance

Sustainability coordination and communication and outreach are at the foundation of a city's efforts in pursuit of a more sustainable community. While some city projects entail the participation of a limited number of actors, by its nature sustainability must involve everyone. This includes government leaders and staff, citizens and citizen's groups, and businesses among others. Given the need to involve all of these entities, Sustainability Coordination and Communication and Outreach are required to provide a framework for organizing efforts across departments and plans and for providing a strategy for engaging the community. To date, these elements have not been sufficiently addressed in Alexandria. As a result, and in spite of notable successes in individual programs and activities, much of Alexandria's experiences with sustainability could be characterized as disjointed and lacking in broad-based community engagement. To overcome this and foster a truly sustainable process, Alexandria's approaches to sustainability coordination and communications and outreach must be reviewed for areas of improvement.

An effective Sustainability Coordination strategy breaks down silos and promotes collaboration amongst all city stakeholders. It promotes partnerships among city departments and offices, enabling sustainability goals and actions to be identified, shared, and worked towards collaboratively. Partnerships are also formed with entities external to the city government, such as individual citizens and community based organizations (CBOs), businesses, non-governmental organizations (NGOs) and others. The community's involvement in sustainability efforts is further bolstered through an effective communications and outreach strategy. Through an array of coordinated messaging and educational tools, the community is kept informed of progress on sustainability and the ways it can contribute to the process.

Although a community can have great accomplishments in its individual sustainability efforts, such as with urban greening and energy conservation programs, the failure to connect these activities with others and to address them as part of an overarching strategy will not yield the long-term dividends that might otherwise be realized. The good news is that there is great potential in Alexandria for a blossoming of sustainability. The commendable actions towards sustainability that have already been achieved reveal this. They offer but a preview of the truly sustainable city Alexandria could become once its potential is fully nurtured.

1.2 Policies and Actions in Original Eco-City Charter and Environmental Action Plan

The Alexandria Environmental Policy Commission (EPC) has already realized the need for prioritizing sustainability coordination and communication and outreach. Indeed, Alexandria's original Eco-City Charter (Charter) (approved in 2008)¹ and Environmental Action Plan (EAP) (approved in 2009)² both

SUSTAINABILITY COORDINATION & COMMUNICATION AND OUTREACH

include language that either explicitly instructs or more generally supports and encourages efforts of sustainability coordination and communication and outreach. In fact, these aspects are seen in both the Charter and in every principle laid out in the EAP. Appendix A: Review of the Eco-City Charter and EPA, located at the end of this brief, provides a breakdown of where elements of sustainability coordination and communication and outreach are found in the Charter and EAP.

1.2.1 Sustainability Coordination

The Charter instructs the EPC, City Council, City Manager, City Departments and Boards and Commissions to coordinate sustainability efforts with one another. Moreover, this coordination is to continue outside of just Alexandria, as key regional partnerships are to be identified and developed.

Each section of the EAP contains guidance and mandates regarding sustainability coordination. Within the overview section, there is discussion of the need to leverage existing resources and staff, to be mindful of individual plans and cross-cutting themes, to build a holistic decision-making process for all City actions, to form special task forces to address overarching issues and to establish partnerships and programs across political jurisdictions. It also notes that many leading sustainability cities have dedicated sustainability departments or coordinators.

Each of the EAP's 10 principles contains goals and actions that address sustainability coordination. These include measures to train and educate staff, encourage city-wide support, collaborate with neighboring jurisdictions, create networks of stakeholders with similar functions, improve coordination among government agencies, create groups to address cross-cutting themes, make participation mandatory in certain sustainability activities, and ensure that new plans and projects reflect the sustainability vision and principles. The EAP even includes a principle totally dedicated to "Implementation," Chapter 10, which calls for many actions with regards to sustainability coordination. Notably, this includes creating an "Eco-City Coordinator" position to help coordinate with all City departments.³ As shall be discussed further in this paper, having such a position – what is often defined as a "Sustainability Coordinator" – is an essential feature of a city's sustainability program.

1.2.2 Communication and Outreach

The Charter mandates that programs and steps be implemented to inform, educate, and engage community stakeholders, including citizens, visitors, local businesses, schools, and civic organizations. One method proposed for doing so is an annual report card, which evaluates the City's progress toward sustainability (see Tracking, Indicators, and Report Cards policy brief by Jimena Pinzón).

Communications and outreach considerations are interwoven throughout the EAP. In the overview section, it is noted that the EAP reflects a high degree of community consensus given such efforts as public work sessions and community open houses. It also advocates for the continuation and creation of other communication and outreach activities, such as Eco-City cafes, summits, blogs and websites.

Communications and outreach are emphasized in each of the 10 principles. The principles direct Alexandria to inform and engage stakeholders through educational programs, meetings with local groups, information and best practice sharing initiatives, development of publications and educational signs, Internet-based resources, events, community partnerships, volunteer programs, and award programs. The “Implementation” principle (Chapter 10) advocates for an Eco-City Outreach Plan for the EPC and City staff, the development of an Eco-City Alexandria Outreach and Education Center, and the hiring of a staff person to provide education and outreach to citizens.⁴

1.3 Actions Taken by City/EPC

1.3.1 Sustainability Coordination

Among the strongest actions towards sustainability coordination that the EPC has proposed is the creation of an Eco-City Coordinator. Although the position has been proposed to the Alexandria City Council, it has never been implemented. The largest obstacle to the implementation of this position, according to EPC members and City staff I’ve interviewed, is funding constraints. No entity has stepped in to fill what might be seen as a vacant role. Although coordination occurs between City departments and offices on some issues, there is no one entity charged with ensuring this happens.

Despite the absence of an Eco-City Coordinator, some coordination on sustainability issues has occurred amongst City of Alexandria staff. In particular, the Office of Environmental Quality (OEQ) has periodically convened the Environmental Coordinating Group (ECG) to discuss and collaborate on sustainability issues. The ECG is comprised of mid-level city staff from relevant City of Alexandria Departments, such as the Department of Health, the Department of Planning and Zoning, and the Department of General Services, among others.⁵ EPC members have also participated in planning activities with City commissions to assist with such actions as updating the Open Space Master Plan and the Transportation Master Plan.

There is some degree of ad hoc coordination happening between departments and offices on sustainability projects. This coordination is supported through the Eco-City Charter and EAP, as well as in some of the Citywide Chapters of the Alexandria Master Plan. These citywide chapters refer back to the Eco-City Charter and the EAP, as well as to other Chapters. One plan, the Alexandria City Council Strategic Plan, sets forth citywide goals that support all three aspects of sustainability – environmentalism, economic vitality, and social equity.

1.3.2 Communication and Outreach

Alexandria has done much in terms of communication and outreach. The Office of Communications and Public Information is the City’s primary entity for disseminating messaging to the public. It does this through a variety of means, such as social media messages (including Facebook and Twitter), the Alex TV government access channel, live and recorded city meetings, the Mayor Euille Today television program, RSS feeds, newsletters, and in-person meetings.

SUSTAINABILITY COORDINATION & COMMUNICATION AND OUTREACH

Public Information Officers (PIOs) and community outreach personnel from some of Alexandria's departments and offices, such as the Department of Transportation and Environmental Services (T&ES) help to prepare messages and press releases for the public about sustainability efforts. It was remarked at the time of the interview with the PIO that as sustainability is commonly regarded as a Department of T&ES function, the department is largely responsible for much of the messaging that is prepared. Cross-departmental collaboration with staff in other Alexandria departments and offices generates these messages when equity is shared. Though it is not the norm, it was noted that there was an instance in which the PIOs and the community outreach personnel were constrained in their ability to quickly process a just-assigned sustainability message given limited staffing and competing priorities. Having additional personnel to dedicate to the process of preparing messages would help to address such constraints.

Perhaps because it is the de facto sustainability entity among Alexandria's departments (it does, after all, contain the OEQ), the Department of T&ES has implemented a number of its own sustainability projects that seek to involve and educate the public. For more on these resources and programs, see Appendix B: City of Alexandria Communication and Outreach Programs. Additionally, the OEQ offers a number of workshops and classes for citizens. These include a "How to Remove and Identify Invasive Plants" class and a "Build Your Own Rain Barrel Workshop." These events are listed on the OEQ's webpage.⁶

The City maintains a number of other websites and online resources on sustainability, including Eco-City Alexandria's own webpage⁷ and the EPC's webpage.⁸ The EPC used to host a blog, but this has been discontinued. The Alexandria Master Plan and its citywide chapters and Small Area Plans⁹ can also be found on Alexandria's website. Numerous citywide chapters include sections on civic engagement (the Open Space Plan, Urban Forestry Master Plan, and Pedestrian and Bicycle Master Plan, among others) as do some Small Area Plans (Waterfront Plan, North Potomac Yard, and Beauregard, among others). The "What's Next Alexandria" program,¹⁰ for which there is both a *Handbook for Civic Engagement* and a website, lays out a strategy for communicating with the public on issues. In discussions with city staff it was noted that a position was needed to put the "What's Next Alexandria" program to full effect. However, this position has not been allocated for.

Moreover, part of the "What's Next Alexandria" involves "AlexEngage,"¹¹ an online forum for civic engagement. AlexEngage allows citizens to submit their comments about proposals being considered by the city, such as annual budgets and small areas plans. This is an exciting tool, and one that leading sustainability cities have adopted, such as Vancouver, British Columbia.¹² However, AlexEngage appears to be underutilized. Alexandria also operates the "Volunteer Alexandria" website,¹³ which provides citizens with a means of identifying volunteer opportunities. There are a number of volunteer opportunities identified on the page that apply to sustainability efforts, one being to assist the SNAP/EBT program at the Old Town Farmers' Market (this program is described in more detail in Section 3 below).

Other events pertaining to sustainability are convened by the EPC and City. One such event is the annual Earth Day celebration, for which the EPC takes an active role with City staff in helping to plan. During this event the EPC and Alexandria Renew Enterprises announce the winner of the Ellen Pickering Environmental Award, which is bestowed “To honor and recognize those who demonstrate a commitment to protecting the natural environment and keeping the City green.”¹⁴

1.4 EPC Intent for Next Iteration of EAP

As an Eco-City Coordinator was proposed for the previous EAP and has not been approved, the current EPC members have emphasized that a case needs to be made for this position. Having this information will allow the EPC to justify creating the position following the release of the next EAP. Additionally, EPC members also expressed an interest in learning about other mechanisms for sustainability coordination, such as the role an outside organization (e.g., an NGO) might play and the importance of the title of sustainability coordinator vs. sustainability manager.

In terms of outreach and communications, EPC members have acknowledged that there is much being done. However, there doesn't appear to be a strategy to the multitude of efforts (at least not one being followed), leaving them to be conducted mostly on an ad hoc basis and not always with sufficient lead-time or planning. Therefore, the EPC is interested in learning about strategies that are available, particularly in regards to social media tools.

1.5 Overview of Policy Brief Process

Research into the topics of sustainability coordination and communication and outreach entailed identifying efforts Alexandria (chiefly the EPC and the City's Departments and Offices) had executed, or that it had discussed it would do in City documents (such as the Eco-City Charter and EAP, Citywide Chapters of the Alexandria Master Plan, etc.). In addition to reviewing City of Alexandria websites and documents, interviews were conducted with three personnel from the Department of T&ES^{15 16 17} and one person from the Department of General Services.¹⁸ Two additional EPC members were interviewed^{19 20} as they were identified as also being relevant POCs for this topic.

Examples of best practices that might help inform the City's future sustainability efforts were additionally taken from external sources. Numerous city websites were reviewed, and interviews were conducted with sustainability coordinators/managers for the following cities: Charlottesville, Virginia;²¹ Richmond, Virginia;²² Evanston, Illinois;²³ and Dubuque, Iowa.²⁴ Additionally conducted interviews were held with the Watershed Section Supervisor²⁵ and the Communications Coordinator²⁶ from Santa Monica, California's Office of Sustainability and the Environment.

Finally, NGOs and CBOs were consulted for examples of how these institutions might be able to further a city's sustainability agenda. Interviews were conducted with the President²⁷ and Secretary²⁸ of the Alexandria Emerging Technologies Center (AETC), the Executive Director of Arlingtonians for a Clean

Environment (ACE),²⁹ the Founder/Executive Director of Arlington Green,³⁰ and the Communications and Member Services Coordinator of the Urban Sustainability Directors Network (USDN).³¹

Appendix C: Overview of Sustainability Entities Interviewed contains a quick snapshot of each of these organizations. It includes information on the name of the department, start date, budget source, number of staff, POC details, and website URL.

2 Overview of Topic

2.1 General Discussion

The concept of sustainability coordination may seem simple enough, but it can involve numerous permutations. Generally speaking, it entails the management and, to the greatest extent possible, the synchronization of all of a city's sustainability activities. In an increasing number of cities, sustainability coordination is performed by a single person or office, uniting the many efforts that are being taken across multiple departments and offices. And more than just bringing together activities that are already being conducted, sustainability coordination also entails ensuring sustainability efforts are initiated or infused into city programs and projects.

While one of sustainability coordination's elements entails engaging all city officials and staff in sustainability, it is also important that the public be engaged in sustainability. This is where outreach and coordination comes into play. In communities where the public does not already realize the need for sustainability and is not already demanding these types of programs and projects, city officials and their partners will need to focus first on educating the public. Once the need for sustainability is realized, sustainability programs and projects are much more likely to be supported and even demanded by the public. This is the generation of political will behind sustainability, and it ensures public officials will pursue sustainability in their agendas.

Even when the public is already very aware of the need for sustainability, it's very important that the public stay involved in the sustainability efforts that are underway through communication and outreach. For one, many of these efforts involve the active participation of the public (e.g., eating locally sourced foods and using transportation options that require less consumption of fossil fuels per person); the public therefore needs to be informed of new options so that they may be considered. Additionally, informing the public of sustainability areas that need special attention (e.g., in areas where sufficient progress is lacking) can generate support for heightening the amount of attention and resources that are dedicated to these issues.

2.2 Primary Policy/Programmatic Elements

The following elements were generated by distilling the essence of the goals and actions identified in the Charter's and EAP's guiding principles that related to sustainability coordination and

communications and outreach. For Section 3 below, the elements that apply to each of the discussions are presented first.

Sustainability coordination consists of the following elements:

- Coordination across city departments and plans to foster a holistic decision-making process.
- Development and coordination of partnerships with non-profit organizations and volunteers.
- Development and coordination of partnerships across regions and sectors.
- Education and training of city staff.
- Maximization of efficient use of resources and costs savings.

Communications and outreach consists of the following elements:

- Education and training of citizens – including local businesses, schools, and civic organizations – as well as visitors.
- Encouraging the engagement of citizens – including local businesses, schools, and civic organizations – as well as visitors.
- Incentivizing performance and achievement.

3 Snapshot of Sustainability Policy/Program Innovation Relevant for the City of Alexandria

The examples provided in this section are meant to highlight sustainability coordination and communication and outreach practices that have been effective. They were selected in the hope that they might help to inform Alexandria's efforts going forward. Not only is a discussion of each of the examples provided, but specific recommendations are identified as well for consideration in Alexandria.

Section 4: Additional discussion of sustainability coordination and communication and outreach best practices and recommendations further addresses additional considerations that couldn't be included with these examples. This section includes discussion of how to fund a sustainability coordinator, how to further investigate hiring a sustainability coordinator, alternatives to a full-time sustainability coordinator, the placement of the sustainability coordinator, the title of sustainability coordinator vs. sustainability manager, and the importance of sustainability coordinators providing value to justify their roles. In terms of communication and outreach, it addresses methods and strategies for effectively leveraging tools, educating the public, and building a base of sustainability volunteers.

3.1 Sustainability Champion and Pursuit of Grant Funds (examples from Alexandria, VA and Charlottesville, VA)

3.1.1 Applicable Policy/Programmatic Elements

- Sustainability coordination: Development and coordination of partnerships with non-profit organizations and volunteers.
- Sustainability coordination: Maximization of efficient use of resources and costs savings.
- Communications and outreach: Education and training of citizens – including local businesses, schools, and civic organizations – as well as visitors.
- Communications and outreach: Encouraging the engagement of citizens – including local businesses, schools, and civic organizations – as well as visitors.

3.1.2 Description

The Gleaning Program at the Old Town [Alexandria] Farmers' Market is an example of some of the good efforts towards sustainability that have already been conducted by Alexandria. The following excerpt from the Department of General Service's website explains the program:

"In May 2014, Department of General Services staff initiated a Gleaning (Food Rescue) Program at the Old Town Farmers' Market. The goal of the Gleaning Program is to redistribute donated fresh and locally grown food (primarily vegetables and fruit) from the vendors at the Old Town Farmers' Market—food that would otherwise be discarded—to shelters that serve the hungry, homeless, and at-risk low-income residents in the City of Alexandria. The redistribution of food takes place every Saturday at the close of the farmers' market. This project aligns with the City's healthy food and composting initiatives, the Eco-City Charter and Alexandria's Environmental Action Plan (Goal 5) by providing access to healthy locally grown fruits and vegetables to low-income City residents, while reducing food waste sent to City landfills.

The concept for the program at the Old Town Farmers' Market was based on the results of a survey of the food vendors to identify their interest and willingness to participate in a gleaning program at the Market, as well as a meeting with various local organizations like Carpenters' Shelter, Christ House, Alive! (A food distribution non-profit), and the Alexandria Childhood Obesity Action Network (ACOAN) to identify potential food recipients and local partners.

With the help of unpaid volunteers to coordinate the program, pick-up the donated produce and transport it to recipient locations, the City collected 3,309 pounds of fresh vegetables and fruit between May 2014 and August 2014. The majority of the food was donated to the Carpenter's Shelter and United Methodist Church in Alexandria.

SUSTAINABILITY COORDINATION & COMMUNICATION AND OUTREACH

The future of the gleaning program is bright and innovative with the proposed use of bicycles equipped with carts to transport the donated food to nearby shelters, a model similar to the Food Rescue Project in Boulder, CO, a food distribution model that utilizes bicycles to distribute donated food throughout the City of Boulder. In addition, General Services' staff has applied for a USDA Farmers Market Promotion Program Grant to obtain funding for the Old Town Farmers' Market through a project entitled "Promoting Access to Healthy Eating at Alexandria Old Town Farmers' Market". If awarded, a portion of this grant will focus on direct food rescue and redistribution of fresh, healthy produce and bread donated by Old Town Farmers' Market vendors through funding the gleaning program activities.

Staff will be meeting with representatives from local organizations such as the Hunger Free Alexandria group, Alive! and Christ House this month to present the existing model and identify additional stakeholders and interested recipient organizations."³²

The prospective actions described in the second to last paragraph have either occurred or are now in progress. Specifically, the USDA grant was awarded to Alexandria, which allowed for the purchasing of the carts for transporting the donated food via bicycles. Funds from the grant also supported the hiring of a part-time market coordinator to help bolster the Gleaning Program even more. Finally, funds from the grant were used to market the Gleaning Program through advertisements on Facebook. And though it does not state so in the above description, the Gleaning Program also promotes Alexandria's composting program, which falls under the Department of T&ES.

Several points from this effort deserve noting. First, personnel from the Department of General Services began this program largely on their own initiative and using their own ingenuity, referencing the Charter and EAP. Second, they grew this effort by successfully engaging the community, such as vendors at the Farmers' Market and volunteers from religious groups, other associations, and the community at large. Third, a grant was identified and successfully won to help invigorate this effort even further. This grant was used to pay for a part-time market coordinator. Thus, because of the harnessing of volunteers and the use of grant funds the city's monetary contribution towards the project was kept to a minimum.

This commendable project is a manifestation of what could happen on a larger scale if sustainability efforts were actively promoted among all departments and offices. However, without the involvement of a sustainability champion in each, the implementation of sustainability activities is strictly personality-based. That is, successes such as the ones achieved in the Gleaning Program will only be realized in some departments and offices and not all, because the crucial factor of the presence of a self-motivated sustainability champion will not always be consistent.

However, rather than advocating for there to be dedicated sustainability staff in each department and office, a single sustainability coordinator could infuse sustainability efforts and considerations into each of the City's entities. Lacking the ability to incorporate such a person or office, a mechanism for sustainability coordination mechanism still should be instituted. It also deserves noting that personnel

from the Department of General Services experienced challenges in coordinating the Gleaning Program across other Departments and Offices. This was mostly because personnel in these other departments and offices were typically busy with other tasks, and relationships had to be built one-by-one with these personnel.

Just like the Old Town Farmers' Market Gleaning Program, many sustainability activities throughout the U.S. receive funding from grants. This is notably so in Charlottesville, Virginia where the Environmental Sustainability Manager noted that she and her staff are constantly engaged in "grant chasing." She explained that Charlottesville often uses external funds, such as those provided via grants, to demonstrate pilot projects. If the project proves to be successful, it will be considered for full funding by the City. The Charlottesville Environmental Sustainability Manager also stated that since staff actively look for and apply for grants, they have become much better at this process and more successful at winning opportunities. Given that there are many cities competing for grants, it is especially important that one's staff is well-versed in this process to remain competitive. She emphasized that if there was not staff dedicated to applying for grants, it simply wouldn't be done.

Other cities with sustainability coordinators and sustainability offices also noted that finding and winning grants is one of their major functions, and one that adds demonstrable value to their presence. The Sustainability Community Coordinator for the City of Dubuque, Iowa observed that 30 to 40% of the sustainability projects the city executes are supported by grants. Some of the other cities interviewed for this topic discussed specific projects for which they had received grant money.

3.1.3 Recommendations for Alexandria

Implement the role of a sustainability coordinator in Alexandria to enable the City to pursue and win grants for sustainability, which will also allow it to meet the goals of specific departments and offices. In making the case for a sustainability coordinator, the ability of this position to bring in these external funds should be emphasized. That is, any funds the city has to dedicate to the position and its projects will be more than compensated by the external monies this person brings in and by the cost savings that are yielded. More discussion on approaches for implementing a sustainability coordinator in Alexandria will be addressed in Section 4.1.

3.2 Involvement in Regional Partnerships and Sustainability Associations (Examples from Evanston, IL; Charlottesville, VA; and the Urban Sustainability Director's Network: Houston, TX, and Southeast Michigan)

3.2.1 Applicable Policy/Programmatic Elements

- Sustainability coordination: Development and coordination of partnerships with non-profit organizations and volunteers.

- Sustainability coordination: Maximization of efficient use of resources and costs savings.
- Communications and outreach: Education and training of citizens – including local businesses, schools, and civic organizations – as well as visitors.
- Communications and outreach: Encouraging the engagement of citizens – including local businesses, schools, and civic organizations – as well as visitors.

3.2.2 Description

Evanston, Illinois has leveraged its participation in a number of regional networks and sustainability associations to further its sustainability agenda. The City’s sustainability efforts are led by a dedicated Sustainability Manager, who has been involved in such groups as the Council of Governments for the Chicago area, the Urban Sustainability Director’s Network (USDN), and the Prairie State Network. The Sustainability Manager’s involvement in the Council of Governments allowed Evanston to get involved in a discussion of a bikeshare program with neighboring Chicago. This led to Evanston receiving a substantial grant for establishing and linking to Chicago’s bikeshare program.³³

Some of the leading sustainability associations today include USDN and the National League of Cities, which operates the Sustainable Cities Institute. USDN is a “peer-to-peer” network of local government officials. Currently, USDN has 136 members from cities across the U.S. and in Canada. A significant number of these members are in the Mid-Atlantic area. This network provides its members a platform to interact with one another on sustainability issues, helping to promote best practices, share lessons learned and generally foster better understandings of methods for approaching sustainability.

Much of this is done, or at least initiated, via USDN’s website. Here members can access information-sharing forums, engage in focus groups, and access sustainability resources, among other products and services. The website and USDN events often serve as means for members to make connections with one another. For 2014, USDN reported that each of its members had connections with 38.8 other members for information exchange and collaboration on projects. USDN stresses that it is a safe place for its members to share information, as members are comfortable in sharing ideas and experiences within the private network.³⁴

Participation in USDN requires an annual fee, which can only be disclosed to prospective city applicants. There are also two levels of membership: “Core Membership” and “Associate Membership.” The notable difference between the two tiers is that one allows its members to attend the annual USDN conference, with all travel and lodging fees covered. The other tier entails most of the same services as the first, but participation in the annual conference is not included.

Additionally, participation in the USDN requires that the city have a person who is directly responsible for sustainability plan implementation. Although the USDN does not stipulate that a city must have a person who is 100% dedicated to sustainability plan implementation for his/her job duties, it does require that the city have a “point person.” While Alexandria could likely find someone among its

departments and offices to be that point person, it would be optimal if that person's sole job was as a sustainability coordinator in order to receive the greatest benefit from involvement in USDN.

In one success story, the Asheville, North Carolina's implementation of a LED street light program led to the sharing of best practices of this effort with other members, such as Houston, Texas and towns in southeastern Michigan. Houston, Texas attributed its involvement in USDN, in part, for helping to implement an effort to convert its 165,000 streetlights to LEDs.³⁵

The Sustainability Manager from Evanston, Illinois and the Environmental Sustainability Manager from Charlottesville, Virginia both emphasized how being involved in regional partnerships and sustainability associations have been beneficial to achieving sustainability goals. Specifically, Evanston's Sustainability Manager noted that "peer pressure" in these groups helps push members to do more. Charlottesville's Environmental Sustainability Manager commented that it's important that sustainability staff in cities not "reinvent the wheel," something that can be prevented by being involved in such collaborative groups as regional partnerships and sustainability associations.

3.2.3 Recommendations

Join or consider expanded partnerships with sustainability organizations, such as USDN, and foster relationships among other sustainability coordinators and offices to explore and leverage best practices. Additionally, frame the ability of a sustainability coordinator to fully take advantage of the resources provided through sustainability associations as further justification for this position. New and expanded partnerships can still be pursued without a dedicated sustainability coordinator, albeit to a lesser extent.

3.3 Work with a Non-Profit Organization to Meet Sustainability Goals (Example from Arlington, VA)

3.3.1 Applicable Policy/Programmatic Elements

- Sustainability coordination: Development and coordination of partnerships with non-profit organizations and volunteers.
- Sustainability coordination: Maximization of efficient use resources and costs savings.
- Communications and outreach: Education and training of citizens – including local businesses, schools, and civic organizations – as well as visitors.
- Communications and outreach: Encouraging the engagement of citizens – including local businesses, schools, and civic organizations – as well as visitors.

3.3.2 Description

Formed in the 1970s, ACE is a non-profit organization that promotes sustainable lifestyles in Arlington. ACE has a formal memorandum of understanding (MOU) with Arlington regarding many of the services it provides to the County's communities. This MOU is approved annually and covers the scope of work

SUSTAINABILITY COORDINATION & COMMUNICATION AND OUTREACH

ACE must perform for that year on behalf of Arlington. ACE benefits by having a more formal relationship with the county government, which allows it to be more successful in the pursuit of its mission. Arlington also provides ACE with some funding and office space in return. And without its relationship with ACE, Arlington would not be able to pursue some of its sustainability efforts.

ACE's work focuses primarily on school outreach and other education campaigns, identifying and organizing volunteer opportunities, and even trying to implement specific sustainability programs. In terms of education, ACE sends volunteers to Arlington's schools at the request of teachers and principals to instruct on sustainability topics. Most sustainability education in Arlington schools is delivered to the earlier grade levels. Many of ACE's volunteer sustainability educators are students themselves. High school students have volunteered to be ACE instructors as part of their own school projects or in return for volunteer hours for the National Honor Society. ACE also conducts sustainability training with businesses, in particular with the staffs of companies around Earth Day.

In addition to its presence in schools and businesses, ACE gets the word out about itself and its programs at Arlington events. The MOU specifies the minimum number of fairs and festivals it must have a presence at each year (eight for the current year). To help get fair and festival goers interested in ACE and its offerings, ACE often conducts its promotions with the use of a "hook." This could include something like a gift certificate to a local shopping market (the example of Trader Joe's was provided). The hook can be used to entice people to sign up for ACE's mailing list; the circulation of its publications has grown as a result.

Some of ACE's specific program accomplishments include the "Stormwater Wise Landscapes" program, which provides residents and business owners with funding to install small-scale practices that will reduce stormwater runoff from their property. Homeowners are provided with a 50% match on their investment in modifications to their properties. Arlington County staff inspects the property for compliance, and ACE delivers the funds to the approved applicants. These funds are provided through a grant from the National Fish and Wildlife Fund; they couldn't be funneled directly from Arlington County to residents. It is permissible for the funds to be provided from ACE to residents though, and this is exactly what happens.

ACE also operates the highly successful "Energy Masters Program," which was given a "Green Award" by Washingtonian magazine in May 2013.³⁶ This program consists of volunteers visiting homes and making improvements to increase energy efficiency. Volunteers receive 16 hours of training from ACE and receive a Virginia Cooperative Extension certification. This program has also completed outreach efforts to underprivileged communities who can stand to benefit immensely in terms of cost savings from increased energy efficiency at their homes. Indeed, ACE has generated and disseminated pamphlets on itself and its programs in English and Spanish, and it is working on doing this for other languages as well.

ACE is also prepared to coordinate more with Alexandria and/or an Alexandria-based non-profit organization with regards to leveraging one another's resources for projects. This is especially in terms

of volunteers: if each jurisdiction trains and qualifies volunteers, this could generate a larger pool of people to utilize for projects such as the Energy Masters Program and school education.

3.3.3 Recommendations for Alexandria

Develop an MOU with a local, sustainability non-profit organization to assist in meeting sustainability goals in Alexandria. Elements to be covered in such an MOU could include: providing sustainability education to schools, businesses, and other community entities; attending community events in Alexandria, such as fairs and festivals, where sustainability efforts could be promoted; helping to find and apply for grants; and helping to execute specific sustainability projects. The MOU could also stipulate a formal role for the organization in helping to coordinate sustainability among Alexandria's departments and offices. AETC, an Alexandria-based non-profit sustainability association, has voiced its willingness to partner with the City of Alexandria via a formal agreement (such as an MOU) to address the elements noted above. As with the relationship between Arlington and ACE, AETC would also require funding from Alexandria to execute its sustainability functions in support of the City.

Additionally, Alexandria should consider partnering with Arlington and its sustainability organizations on sustainability projects. In addition to ACE, there is Arlington Green. Speaking with representatives of both ACE and Arlington Green, both are willing to engage in sustainability partnerships with Alexandria and its sustainability organizations. All of these organizations bring certain skills and access to resources that could not be leveraged otherwise, and partnerships should be sought with all of them to address the large task of sustainability.

3.4 Annual Convening of City and Community Leaders to Discuss Sustainability Efforts (Example from Santa Monica, CA)

3.4.1 Applicable Policy/Programmatic Elements

- Sustainability Coordination: Coordination across city departments and plans to foster a holistic decision-making process.
- Communications and Outreach: Encouraging the engagement of citizens – including local businesses, schools, and civic organizations – as well as visitors.

3.4.2 Description

Once per year, Santa Monica's Office of Sustainability and the Environment has convened an invite-only meeting of the City's "movers and shakers" – government officials, business community representatives, and members of citizen groups – to discuss the City's sustainability activities. Meeting attendees review an annual sustainability report for Santa Monica, which contains an accounting of the City's performance measures. This report served as an opportunity for attendees to discover where the City's efforts had been successful, and where they had not. The honest discussions that resulted facilitated a process whereby city leaders realized where they needed to focus their efforts, and the ramifications if

they did not do so. This meeting could also serve as an opportunity to discuss the performance measures of neighboring jurisdictions to help draw out discussions of why they had been successful whereas the City had not. Such analyses can lend themselves to difficult discussions and “soul-searching,” but this level of introspection is necessary if progress is to be made.

Such a process helps to generate political will behind sustainability projects. Rather than having sustainability relegated to an item on a large agenda, where it can be quickly lost in the shuffle with other pressing topics, periodically, sustainability needs to be brought to the forefront by dedicating entire meetings just to it. The importance of political will was repeatedly emphasized by city leaders from the U.S. and France during the “Focus 2015: A Forum of Communities for Urban Sustainability”³⁷ event conducted at the Embassy of France in Washington, DC on March 5 and 6, 2015. Attendees noted that sustainability efforts would simply not be sustainable over the long-term, during which time competing initiatives would emerge, without sufficient political backing.

Other important elements of the meeting – should it be considered for implementation in Alexandria – are to conduct meetings early in the morning (before or at the outset of the workday) and to ensure it is highly professional in nature. With regards to the former consideration, having it early accommodates the schedules of busy people – which the attendees likely are – and denotes a sense of greater prioritization and importance than if it were conducted after normal business hours.

As it is part of a separate sustainability topic, the discussion of the performance indicators and other elements to be presented in a prospective annual report or any other document will not be addressed in great detail here. In general though, there are certain aspects that need to be considered when choosing and presenting indicators, particularly when they are to be provided to city and business leaders and members of the public who don’t have the time or necessarily the background to decipher a multitude of complex, esoteric indicators. For one, there should be a limited number of these. Covering a limited number of prioritized topics will allow audiences to digest the information they have without being distracted by a multitude of issues. Secondly, indicators need to be selected and translated in such a way that they resonate with citizens. The indicators need to be presented so that they are relatable to the lives of citizens. Finally, and very much connected with the last aspect, indicators should serve as an opportunity to transform the messaging about sustainability. Too often sustainability has been construed as something that is unnecessarily costly and disruptive to normal city operations and business enterprises. By framing sustainability as something that lowers costs, increases efficiencies, and even results in a more positive business climate, many of the arguments that have historically undermined sustainability can be reversed.

3.4.3 Recommendation for Alexandria

Once per year, the OEQ and the EPC, in partnership with the City Manager’s Office, should convene an invite-only summit with City leaders, representatives of the business community, representatives of citizens groups, and even individual citizens to discuss Alexandria’s sustainability efforts. During the

meeting, attendees should be presented with a report card containing sustainability performance indicators for Alexandria. This will help to generate discussion, as will comparisons with performance measures of neighboring jurisdictions.

3.5 Highlighting Success Stories (Examples from Santa Monica, CA and Baltimore, MD)

3.5.1 Applicable Policy/Programmatic Elements

- Incentivizing performance and achievement.

3.5.2 Description

It is important that people and entities responsible for implementing sustainability and for achieving successes receive credit for their efforts.³⁸ More than just celebrating the sustainability coordinator or staff of an office of sustainability, the people that were involved in the implementation of the features of the program are the ones that should be recognized. This helps to nurture relationships with key stakeholders and ensure their continued support of sustainability activities. As discussed in Section 1.3: Actions Taken by City/EPC, the EPC bestows the Ellen Pickering Environmental Award once per year. While this is a positive step taken by Alexandria, it can be expanded upon. Examples from other cities offer some perspectives into what might be done.

The Baltimore Office of Sustainability's "Education and Awareness" webpage³⁹ features an interactive map of the City's sustainability success stories. It is a fun way to for visitors to learn about sustainability in action in their community, while the people responsible for having implemented sustainability get to enjoy being in the limelight. Establishing such a page on a website would not be very difficult, but it would yield dividends in earning the continued support of sustainability partners and entice other community members to engage in sustainability. Moreover, Alexandria's EAP already supports such a measure. Specifically, the Solid Waste Principle (Chapter 8) contains a long-term action under Goal 2 to "Work with 'Green Business' initiative to recognize those businesses with highest recycling rates with awards. Promote 'Green Businesses' on the City website or other promotional materials."⁴⁰

The Santa Monica Office of Sustainability and the Environment celebrates sustainability by partnering with the Santa Monica Chamber of Commerce to host an annual awards ceremony, the Sustainable Quality Awards (SQA). This event involves a professional luncheon, and it appears to be very popular amongst the community. It is in its 20th year and is well-attended – attendees are required to pay for tickets to the event, too. According to SQA's website, "The awards are intended to educate and inspire local businesses to adopt sustainable practices and support Santa Monica as a sustainable community." Deputy Sustainability Officer Shannon Parry says of the program, "We congratulate the past and current winners on their exemplary leadership. The SQA program, honoring over 115 businesses since 1995, allows us to applaud and highlight how each and every one of these companies makes a difference. By

recognizing their achievements, we hope to inspire other businesses to adopt their own sustainable practices, thus helping Santa Monica become a model sustainable community.”⁴¹

Charlottesville’s Environmental Sustainability Division celebrates sustainability successes achieved by City departments with press releases. Charlottesville’s Environmental Sustainability Manager noted that her staff has a very good relationship with local media, and staff members have become more adept at preparing press releases as they continue to do them.

3.5.3 Recommendation for Alexandria

Include a page on the Eco-City Alexandria website that promotes success stories in a similar fashion to the way this is done on the Baltimore Office of Sustainability and the Environment’s website. Additionally, convene a major annual awards ceremony where leaders in sustainability, both within the City government as well as in the community, are celebrated for their achievements. Consider partnering with a business community association, such as the local Chamber of Commerce, to promote this event and to help encourage heightened adoption of sustainable practices by local businesses.

4 Additional Discussion of Sustainability Coordination and Communication and Outreach Best Practices and Recommendations

4.1 Sustainability Coordination

The research conducted here into the role of the sustainability coordinator involved phone interviews with staff from four U.S. cities: Charlottesville, Virginia; Evanston, Illinois; Dubuque, Iowa; and Santa Monica, California. It also involved an email exchange with the Sustainability Manager for Richmond, Virginia. All of these cities had full-time sustainability coordinators; Charlottesville, Richmond, and Santa Monica even had sustainability offices (with more than 1 staff person). Rather than addressing each of the findings from these interviews in individual snapshots, they have been presented below, inclusive of general findings about best practices for sustainability coordinators and offices. These findings are buttressed by books on sustainability and can be found in Appendix D: Additional Resources.

4.1.1 Consider the Variety of Options Available for Funding a Sustainability Coordinator

Sustainability staff positions were funded through grants, general funds, and allocations from city programs. In some cases, positions were initially funded as grants. When the grants expired, the cities switched to different funding sources.

This experience applied to Richmond, Virginia’s Sustainability Office. This Office is comprised of three personnel: a Sustainability Manager, an Energy Manager, and a Management Analyst. Initial funding for

SUSTAINABILITY COORDINATION & COMMUNICATION AND OUTREACH

the Sustainability Manager and Energy Manager positions came from the Department of Energy Efficiency Conservation Block Grant (EECBG). These positions were structured as permanent from the beginning, and after the grant ran out, the City switched to the current funding streams. Specifically, the Sustainability Manager and Energy Manager are funded by the Department of Public Utilities, which is an enterprise fund. The Management Analyst is funded by the Department of Public Works, which is a general fund. The total annual budget for these personnel, including benefits, is approximately \$304,000. To help make the case for the continued funding of the personnel after the grant money expired, the Sustainability Office tracked and measured the value it provided to the City. This allowed it to clearly make the business case for its existence. Initially, the Office focused on “low-hanging fruit” projects to quickly realize savings for the City, while also working on longer term projects that have generated larger savings over time. Since 2010, Richmond’s Sustainability and Energy Management Program has saved over \$3.1 million, with \$1.1 million in annual savings going forward (i.e., savings for every future year based on one-time actions).

The Sustainability Manager for Evanston was also initially funded through a grant. When the grant expired after a year, the position became supported through general funds. The Sustainability Coordinator for Dubuque is funded through general funds. In both Charlottesville and Santa Monica, the staffs of the sustainability offices are supported from funds allocated from other city departments, such as public works. In these cases, the roles performed by sustainability personnel are viewed as helping utilities to increase efficiencies and be in compliance with regulations.

The Guide to Greening Cities provides a breakdown of funding sources for sustainability staff and offices, which is based on a report from ICLEI. It notes that “55 percent were funded at least partially through general funds; 37 percent were funded through special fees or rebates, such as solid waste fees; 24 percent were funded through foundation grants and partnerships; 29 percent used EECBG or other federal stimulus funding; and 16 percent were funded with the cost savings they helped achieve.”⁴²

Appendix E: Overview of Sustainability Offices Interviewed contains a quick snapshot of each of the sustainability programs for each of the cities that were interviewed. It includes information on the name of the department, start date, budget source, number of staff, POC details, and website URL.

Additionally, a fellow scholar, Alan Cunningham has prepared a separate but related report on Financing Sustainability. This report and Alan’s corresponding brief (delivered to EPC members on May 4, 2015) address some of the financing considerations for sustainability, including the ways in which sustainability efforts can yield cost savings. Moreover, Alan’s report also addresses some of the specific funding sources for sustainability projects, such as grants, which could be utilized to fund a sustainability coordinator.

4.1.2 Consider Experimenting with a Sustainability Coordinator to Help Make the Case for a Full-Time Position

Given the trepidation any city initially experiences in considering to bring on a new full-time position, getting more hands-on experience with what a sustainability coordinator does may help to allay concerns and justify the position's creation. One option to consider is to host sustainability coordinators from other cities in Alexandria, ideally in person but perhaps via teleconference as well, to discuss their roles and accomplishments with City of Alexandria leaders. Another is to find a grant, such as the EECBG used to support Richmond's sustainability positions for the initial year, to fund a sustainability coordinator for a trial period in Alexandria. Doing this places minimal, if any, financial burdens on the City, and at the end of the trial period the City is left to decide if the value of the position has been proven and whether to fund it.

4.1.3 If Hiring a Full-Time Sustainability Coordinator Isn't possible, Consider Alternatives

The ideal situation for Alexandria is to have a full-time sustainability coordinator who is solely dedicated to this task. If this cannot be readily achieved, other alternatives for instilling more coordination among city departments should be considered.

For one, Alexandria could look to an outside organization to perform some of the roles of sustainability coordination. ACE noted that it has an MOU with Arlington and that from time to time it coordinates sustainability activities between county entities, though this is not formalized within the MOU. This coordination is not something it necessarily seeks to do, it just happens by nature of its working on projects that involve different departments. In terms of an organization like ACE, Alexandria could formalize the sustainability coordination role as an outside entity and this would be paid for through an MOU. AETC has expressed a willingness to serve in a sustainability coordinator role, as long as funding is provided to support its efforts. This proposal was previously discussed in Section 3.3.

Another option would be for EPC members to assume some sustainability coordination roles, albeit not on the level of full-time jobs. In particular, in a rendition of the annual meeting of city and business leaders and citizen group representatives taken from Santa Monica, EPC members could hold a working breakfast once per year with City leaders to discuss sustainability efforts. As with the example previously described, this could be an opportunity to review the City's sustainability performance over the past year, discuss successes and shortcomings, compare results with those of neighboring or similar jurisdictions, and galvanize support for sustainability efforts.

Additionally, personnel could be brought on to assist with sustainability coordination duties. These personnel could be funded through grants (much like the Gleaning Program's Market Coordinator) and they could be brought on with minimal or no costs, such as volunteers, interns, and students (such as those from Virginia Tech).

Unfortunately, there are no examples of tried alternatives other than having a full-time sustainability coordinator or staff. The alternatives described above may achieve some successes, but they will never be as successful in increasing coordination and infusion of sustainability into the city's efforts as a dedicated position. There is much that can be achieved by having this position, and anything less will cause Alexandria to miss many opportunities.

4.1.4 The Sustainability Coordinator Needs to Be Situated in a Place in the City Government That He/She Has Sufficient Influence

Four out of the five city representatives are situated in, or is part of the city manager's or chief administrative officer's office. This is important because it ensures this position is in a place where he/she can exert sufficient influence over the city's departments. This can include holding departments to sustainability timelines and deliverables and enforcing participation in sustainability meetings and other events. Moreover, as sustainability involves all city departments, the sustainability coordinator needs to be in a place where he/she can observe activities and coordinate efforts.

Conversely, a sustainability coordinator who is situated in a department, and perhaps even in a sub-entity of that department, risks not having sufficient access to other departments. Given that this person is in a different department and without any type of authority over personnel in other departments, his/her requests and programs would likely not get the same degree of attention.

One exception among the cities researched was the Environmental Sustainability Manager position in Charlottesville. This person is the head of a four-person Environmental Sustainability Division, which is in the City's Public Works Department. The Environmental Sustainability Manager commented that her division's position in the City administration has not been an issue. Her division had dedicated itself to forming good working relationships with other departments and to provide value, and its success in these endeavors likely allowed it to overcome any resistance to its efforts.

4.1.5 Use of the Term Sustainability Coordinator vs. Sustainability Manager

There were different versions of the sustainability coordinator title that were uncovered, the most frequent being "manager." Somewhat related to the previous discussion about ensuring this position had enough influence in the City government, Richmond's Sustainability Manager noted that for her City "manager" denotes a higher level of authority than "coordinator." She added that identifying the initial sustainability person as a manager leaves room for the creation of a coordinator position in the future when the Sustainability Office expands.

While the title of manager may allow a person to work more effectively within city government, the title of coordinator may promote a person's ability to engage the community. In particular, the Sustainability Coordinator for Dubuque noted that "coordinator" sounds less authoritarian, fostering easier interactions with community members.

The selection of a title – be it sustainability coordinator or sustainability manager – seems to be based on where more effort is needed, in interactions within city hall or with the community. Additionally, cities with more than one sustainability person seem to have decided to use the term manager to denote seniority over other sustainability staff. This also allows for the creation of a separate coordinator position later, as is the case in Richmond.

4.1.6 Sustainability Coordinators Must Strive to Add Value

As observed in *The Guide to Greening Cities*, “Green city leaders become masters at identifying cobenefits.”⁴³ This means that sustainability staffs can’t just exist to pursue their own esoteric goals; rather, they must strive to add value to existing programs and city goals. Staffs may seek and win grants that, more than just relating to sustainability in general, benefit certain departments and programs. Moreover, sustainability staffs provide technical expertise to other city staff in terms of sustainability. In the words of Charlottesville’s Environmental Sustainability Manager, her office serves as an “in-house consulting service.” Based on the roles of the other sustainability coordinators and offices interviewed, the same could also be said for them.

Part of the issue in getting sustainability staffs approved by city administrations is the notion that they don’t provide much value and exist to serve their own ends, which are costly and diverge from those of the city. But rather than existing in ivory towers and working on obscure projects, these individuals are sustainability practitioners who play critical roles in the operations and achievements of city departments and the community at large. Therefore, the rhetoric must be turned around to correctly identify that sustainability efforts do entail some costs in the short term, but by the grant monies they can bring in to fund projects and by the cost savings of these projects they more than pay for themselves. The substantial cost savings yielded by Richmond’s Sustainability Office, identified in Section 4.1.1, are a testament to the value that sustainability coordinators and offices provide.

4.2 Communication and Outreach

Alexandria has a number of tools for conducting communication and outreach with its citizens. The biggest issue is that these efforts aren’t always coordinated or planned much in advance and that some tools aren’t being employed effectively.

4.2.1 Fully Utilize Key Existing Tools and Resources

In order to be effective, websites and social media need to have a full-time person assigned to managing and updating them. The nature of these tools is that if they aren’t updated frequently, and if messages aren’t replied to in a timely manner, they lose their appeal. Therefore, since a staff member can’t manage and update these accounts, an optimal use of resources would be to consolidate them onto a fewer number of pages and accounts. There is more likely to be someone who can manage and update these accounts. Additionally, doing this leverages message distribution lists already established for the

city, which is likely larger anyways and can increase in size if many departments and offices aren't establishing a multitude of other webpages and accounts and competing for members and viewers.

One example of a website and social media resource that would render much better results for Alexandria if it were actively managed is the "AlexEngage" tool (previously described in Section 1.3: Actions Taken by City/EPC). Other cities, such as Vancouver, British Columbia, have realized tremendous successes in involving the community in sustainability discussions by utilizing such tools. These tools can be very powerful force multipliers if they are appropriately taken advantage of. However, in Alexandria few topics have been presented for the public to comment on, and the questions that are asked do not generate the kind of constructive discourse needed. Whereas these sites are intended to be forums for citizens to voice their thoughts on topics – and they may be critical of the city's actions at times, which is fine as long as comments remain appropriate – AlexEngage only asks questions for which discrete, oftentimes numerical, answers are allowed.

4.2.2 Consider Additional Strategies for Promoting Outreach Efforts

Social media applications can be powerful tools for reaching an intended audience. However, given the proliferation of social media on behalf of many organizations, it can be difficult for an individual entity to succeed at getting its messaging noticed. Fortunately, there are strategies that can help with this.

One strategy involves the use of paid advertisements. For example, the Gleaning Program for the Alexandria Farmers' Market paid for advertisements on Facebook. The Department of General Services person in charge of this project used marketing funds allocated in a grant from the U.S. Department of Agriculture for this purpose. She noted that these advertisements helped to attract attention to this effort and to grow the number of program "friends" and "followers" on Facebook and Twitter. Indeed, the *Digital Sustainability Conversations: How Local Governments can Engage Residents Online* from USDN discusses a success story regarding Philadelphia's use of paid advertisements on Facebook to promote its "Get Healthy Philly" campaign. It states, "Paid advertising on Facebook helped grow the program by targeting specific groups of people where they feel comfortable online. While the number of 'Likes' on Facebook is lower for Food Fit Philly compared to other case studies in this Guidebook, the level of engagement is much higher, with 70 people talking about the brand in January 2012."⁴⁴

It's also important that messages have a "hook." The hook is an aspect of the message that has special meaning for the lives of the audience members. For example, a measurement of air quality could be tied to better respiratory health for community members, and an increase in bike trail mileage could be celebrated for giving the community greater access to more sustainable means of transportation. Rather than presenting arcane metrics and figures, material should be framed so that it is clearly relatable to peoples' lives. Having hooks also helps to attract historically hard-to-reach populations, such as persons with disabilities, families, and young adults. By tailoring messages and even including tips to accommodate the interests and needs of these groups, they are more likely to become engaged. The

frequency and timing of messages is important too, as messages are more likely to be viewed if they are perceived as coming from an active source and if they are received at key times of the day.

To help with basic social media applications (such as Facebook and Twitter), there is an array of other applications that can complement an organization's efforts. These applications allow for messages to be sent outside of normal business hours (when nobody in the office is present to send them), for multiple users to be able to access and message from a single account, and for scanning of the internet for news that the organization can then be the first to report to its audience.

Much of what was found on social media came from the USDN's *Digital Sustainability Conversations: How Local Governments can Engage Residents Online* guide and from a discussion with the Santa Monica Office of Sustainability and the Environment Communications Coordinator. This has been summarized as being the most important recommendations from the USDN guide in Appendix F: Recommendations for Social Media.

4.2.3 Education of the Community, Particularly School Students, Must Be a Priority

The Charter and EAP both discuss the importance of providing education to citizens on sustainability. Among the different groups of citizens discussed in these documents, students in Alexandria's schools get particular attention for sustainability education. Notably, Goal 1 of the Implementation Principle (Chapter 10) is to "Provide education and outreach to citizens and local schools and increase community participation to help achieve environmental goals and objectives." Indeed, to imbue the next generation of Alexandrians with a sustainability mindset, Alexandria should focus on a robust educational campaign in City schools. While this education is important for all grades, it is especially impactful when the education is delivered to the younger grades. Education of school students is something that volunteers and sustainability organizations would be ideally suited for. Indeed, as was discussed in Section 3.3, ACE executes much of the sustainability education in Arlington's schools. There may be a role that an ACE equivalent in Alexandria, such as the AETC, could play in providing education to school students.

Something else the ACE representative noted was that Arlington is hiring a full-time sustainability coordinator just for its schools. Arlington has clearly realized the importance of focusing on sustainability education for the next generation of Arlingtonians, and it is making an investment in light of the future dividends it will recoup from a population more informed and prepared to engage in sustainability. As the first short-term action in Goal 1 of the Implementation Principle states that Alexandria should "Hire an additional staff person to work on environmental education and outreach on Eco-City objectives," it should similarly pursue the hiring of such a person.

4.2.4 Build a Volunteer Base to Further Engage the Community on Sustainability

The EAP is replete with language regarding actions to build and coordinate volunteers for sustainability projects. Within the Overview section, it is noted that a “Critical activity is to build on the steady citizen interest by forming an informal Eco-City Volunteer Corps.” It goes on to say that, “Organizing this group around a series of demonstration pilot projects could be a critical turning point in the evolution of Eco-City Alexandria.”⁴⁵ In goal 1 of the Implementation Principle, one of the short-term actions is to “Develop and implement a plan to target volunteer support for implementing Environmental Action Plan projects.”⁴⁶ Clearly Alexandria views that the cadre of potential volunteers within its midst presents a powerful capability for addressing its sustainability goals.

Therefore, the formation of the Eco-City Volunteer Corps should be actively pursued. There are many Alexandrians who could be looked at to start filling the ranks of this Corps already, including those who come to Eco-City Alexandria events and those who have already volunteered for Alexandria sustainability activities, such as the Farmers’ Market Gleaning Program. Moreover, building volunteer communities in partnership with Arlington, ACE, Arlington Green, AETC, and other cities and sustainability organizations could help to expand the pool of sustainability volunteers even more.

5 Conclusion

Alexandria has achieved much in terms of its sustainability agenda, and these successes should be examined to help inform future projects. The initiative, ingenuity, and determination of City leaders and staff and citizens is extraordinary in some cases relating to some City sustainability programs. But as successful as these efforts and their champions have been, they are but a fraction of the sustainability efforts that could be pursued if a more coordinated effort – one that involves and leverages the resources of the entire community – were implemented.

There are different approaches to sustainability that a city can take, but the literature and personal dialogues with people conducted for this brief tend to agree on certain key tenets. One is the utilization of a sustainability coordinator to unite and build momentum behind sustainability projects. The involvement of such a person helps a city to realize sustainability successes that are both commensurate with existing city goals as well as beyond what had been imagined. If such a position cannot be implemented in Alexandria, there are other options for helping to infuse sustainability coordination into the City’s activities. But let there be no doubt that pursuing such an alternative will not yield the same results. A sustainability coordinator can also play an invaluable role in guiding communications and outreach functions to citizens and other city stakeholders. If this position is not sourced, at a minimum, the communications and outreach tools and strategies deemed most effective for the scope of efforts need to be applied to their full potential.

SUSTAINABILITY COORDINATION & COMMUNICATION AND OUTREACH

There is great potential for a sustainable future in Alexandria. The interest and resources are certainly there, but all of these things need to be tapped into for sustainability to truly gain momentum and achieve the far-reaching, revolutionary effects needed. Do not forget how bold and aggressive our actions towards sustainability must be if we are to prepare ourselves for the threats not just of the modern day, but also of the future. Individual efforts can have impacts, but separated from one another they cannot stand up to the looming threats facing the City, which include environmental degradation, reduced economic vitality, and increased social inequality. Each of these can be turned around if communities realize and take advantage of the enormous opportunity they have at this critical point in history.

SUSTAINABILITY COORDINATION & COMMUNICATION AND OUTREACH

Appendix A: Review of Eco-City Charter and EAP

	Document	Sustainability Coordination	Communication and Outreach
	Eco-City Charter	X	X
Environmental Action Plan	Overview	X	X
	Principle: Chapter 1, Transportation		
	Goal 1		X
	Goal 2		X
	Goal 3	X	
	Goal 4		X
	Principle: Chapter 2, Green Building		
	Goal 1	X	X
	Goal 2	X	
	Goal 3	X	X
	Goal 4	X	
	Principle: Chapter 3, Air Quality		
	Goal 1	X	X
	Goal 2		X
	Goal 3	X	X
	Goal 4	X	X
Environmental Action Plan	Principle: Chapter 4, Water Resources		
	Goal 1	X	X
	Goal 2	X	X
	Goal 3	X	X
	Goal 4		
	Principle: Chapter 5, Environment and Health		
	Goal 1	X	X
	Goal 2	X	X
	Goal 3		
	Goal 4	X	X
	Goal 5		X
	Principle: Chapter 6, Energy		
	Goal 1	X	
	Goal 2	X	X
	Goal 3		
Goal 4	X	X	
Goal 5	X	X	

SUSTAINABILITY COORDINATION & COMMUNICATION AND OUTREACH

	Principle: Chapter 7, Land Use and Open Space		
	Goal 1	X	X
	Goal 2	X	
	Goal 3	X	X
	Goal 4	X	X
	Goal 5	X	X
Environmental Action Plan	Principle: Chapter 8, Solid Waste		
	Goal 1		X
	Goal 2		X
	Goal 3	X	
	Goal 4	X	X
	Goal 5		X
	Principle: Chapter 9, Global Climate Change and Other Emerging Threats		
	Goal 1	X	
	Goal 2	X	
	Goal 3		X
	Goal 4	X	
	Goal 5	X	
	Goal 6	X	X
	Principle: Chapter 10, EAP Implementation by Sustainability Sector		
	Goal 1	X	X
	Goal 2		X
	Goal 3	X	
	Goal 4	X	
	Goal 5	X	X
	Goal 6	X	

Appendix D: Other Resources

For additional information on Sustainability Coordination and related topics, there are a number of resources the EPC and City might consider referring to. These including the following:

Textbooks, academic documents, and other resources:

- *The Guide to Greening Cities* by Sadhu Afochs Johnston, Steven S. Nicholas, and Julia Parzen
 - This book makes the case for a single person in a city government – what it terms a “green city leader” – to be selected to direct and coordinate sustainability efforts (in particular, see Chapter 4, “The Green City Leader”).⁴⁷

SUSTAINABILITY COORDINATION & COMMUNICATION AND OUTREACH

- This book discusses the importance of robust Communication and Outreach efforts with the public. It also describes mechanisms for accomplishing this (see Chapter 3, “Leading in the Community”).⁴⁸
- *Taking Sustainable Cities Seriously* by Kent E. Portney
 - This book advocates for personnel within a city government dedicated to the task of directing and coordinating sustainability (see Chapter 2, “Measuring the Seriousness of Sustainable Cities”).⁴⁹
 - This book also addresses mechanisms for achieving civic participation in sustainability efforts, which it notes is necessary to build the social capital necessary for the effective pursuit of sustainability (see Chapter 5, “Communitarian and Participatory Foundations of Sustainable Cities”).⁵⁰

The following city websites were noted for being particularly effective in communicating sustainability issues to the public:

- Santa Monica, California Office of Sustainability and the Environment
 - This user-friendly site has a regularly updated schedule of sustainability events, noticeable links to each of the Office’s components, videos, and tools and resources to allow citizens to get involved.⁵¹
- Evanston, Illinois Greenbuzz
 - This website presents an interactive forum for the City’s Office of Sustainability to communicate with the public on key sustainability issues.⁵²

Communications and Outreach Tools and Resources:

- Community-Based Social Marketing
 - This is a strategy for fostering sustainable behaviors in a community. It involves identifying the barriers to a behavior; developing and piloting a program to overcome these barriers; implementing the program across a community; and evaluating the effectiveness of the program.⁵³
- Socrata
 - An open data system that cities sign up for (it’s a fee-based service). It pushes out tables of information in real-time. These tables can be linked to anywhere in the world. It’s a tool for linking data together and comparing one city’s performance with others.⁵⁴
- The USDN’s Innovation Products webpage
 - This page on USDN’s website contains numerous other resources for officials engaged in sustainability programs and projects.⁵⁵

Appendix E: Overview of Sustainability Offices Interviewed

Charlottesville, Virginia

- Department: Environmental Sustainability Division, Public Works Department
- Start Date: 2002
- Budget: Receives allocations from public utilities
- Staff: 4 full-time employees
- POC: Ms. Kristel Riddervold, Environmental Sustainability Manager (riddervold@charlottesville.org)
- Website: <http://www.charlottesville.org/Index.aspx?page=554>

Richmond, Virginia

- Department: Sustainability Manager, Office of the Deputy Chief Administrative Officer – Operations
- Start Date: 2010
- Budget: Initially funded via a one-year grant; currently funded via allocations from public utilities and from general funds. Personnel costs amount to approximately \$304,000 (including benefits).
- Staff: 3 full-time employees
- POC: Ms. Alicia Zatcoff, Sustainability Manager (alicia.zatcoff@richmondgov.com)
- Website: <http://www.richmondgov.com/sustainability/index.aspx>

Evanston, Illinois

- Department: Sustainability Manager, Office of the City Manager
- Start Date: 2010
- Budget: Initially funded via a one-year grant; currently funded via general funds.
- Staff: 1 full-time employee
- POC: Catherine Hurley, Sustainability Manager (churley@cityofevanston.org)
- Website: <http://www.cityofevanston.org/sustainability/>

Dubuque, Iowa

- Department: Sustainability Community Coordinator, Office of the City Manager
- Start Date: 2008
- Budget: General funds
- Staff: 1 full-time employee
- POC: Cori Burbach, Sustainability Community Coordinator (cburbach@cityofdubuque.org)
- Website: <http://www.cityofdubuque.org/606/Sustainable-Dubuque>

SUSTAINABILITY COORDINATION & COMMUNICATION AND OUTREACH

Santa Monica, California

- Department: Office of Sustainability and the Environment, City Manager’s Office
- Start Date: 1994
- Budget: Funds allocated from other departments, such as public utilities
- Staff: 10-15 full-time employees
- POCs: Neal Shapiro, Watershed Section Supervisor (neal.shapiro@smgov.net) and Andrew Basmajian, Communications Coordinator (andrew.basmajian@smgov.net)
- Website: <http://www.smgov.net/departments/ose/>

Funding and Other Characteristics of Sustainability Offices Interviewed

Location	Start Date	Number of Staff	Staffing Budget	Budget Source
Charlottesville, VA	2002	4	Unknown	Allocations from public utilities.
Richmond, VA	2010	3	\$304,000 (approx.)	Initially funded via a one-year grant (EECBG); currently funded via allocations from public utilities (2 positions) and from general funds (1 position).
Evanston, IL	2010	1	Unknown	Initially funded via a one-year grant; currently funded via general funds.
Dubuque, IA	2008	1	Unknown	General funds.
Santa Monica, CA	1994	10-15	Unknown	Funds allocated from other departments, such as public utilities.

Appendix F: Recommendations for Social Media

Consolidated listing of recommendations from *Digital Sustainability Conversations: How Local Governments can Engage Residents Online*.⁵⁶

- **Engage hard-to-reach people**, expanding beyond the “usual suspects.”
 - Diversify and increase engagement by connecting with demographic groups – like young people, families, people with physical disabilities – who are less likely to attend a public meeting, but are comfortable participating digitally.
 - Combining the use of social media as a channel and appropriate messaging, like “I know what challenges you are facing,” is a great way to engage “hard to reach” populations.
- **Seek to “solve a problem.”**
 - Does your digital engagement solve a problem for someone? Google Maps is very popular because it helps people get around. Popular blogs also tend to have tips and tricks that readers find helpful.
 - To focus on promotion, call to people’s “aspirational self.” Messages that focus on home improvement, self-improvement, green space, innovation, and patriotism can be quite successful. Find out what your audience’s aspiration is, and label people with that aspiration when they complete a positive action. Use that aspirational cue to remind people to create new habits.
 - People react to and want to share content that is emotional. People feel satisfied when telling a story or experiencing someone else’s story. Participation that has a real world impact helps satisfy people’s need to make a difference.
- **Make data available for re-use.**
 - An “open data” approach advances the notion that residents should be given the information and transparency required to hold government accountable.
 - It also allows for innovative use of under-used data or improving relationships between government and partner organizations.
- **Foster internal collaboration and leverage employee strengths** by involving multiple departments in developing content, managing, and responding.
 - Government employees appreciate the opportunity to try innovative engagement approaches, share their projects with the public, and to hear directly from their community.
- **Involve your legal team** in developing appropriate policies and procedures.
 - This helps to ensure your activities are legal, but are still flexible enough to respond to social media’s ever changing conditions.

SUSTAINABILITY COORDINATION & COMMUNICATION AND OUTREACH

- **Maintain a consistent presence** to generate “buzz.”
 - At least one full time staff person is required to coordinate a large digital civic engagement project, half time if the digital engagement is limited. Ongoing, a staff person should dedicate approximately 1/3 of their time towards a government’s social media presence.
 - People who tweet between 10 and 50 times a day have the most followers, with 22 tweets being optimal for maximizing followers. The reason why is because tweets “decay” incredibly fast – 92% of all retweets and 97% of all replies occur within an hour of the original tweet.
 - Online marketers state that the best time to tweet is between 9am and 3pm. Facebook users are more likely to engage with a post before noon and on Wednesdays and Fridays. As, younger and more urban people tend to go online while travelling from one place to another, using smart phones, tablets, or laptops, consider posting content during morning and afternoon commutes.
 - If scheduling Twitter or Facebook updates is challenging for your organization, you can use an application like Timely or HootSuite, which automatically schedule posts to create the maximum impact and reach.
 - With limited time and budget, reach a large audience online by developing relationships with influencers, or people who generate a lot of buzz online.
- **Have multiple users manage social media accounts.**
 - You can use CoTweet or MediaFunnel to let multiple users share a corporate Twitter account with varying permissions levels.
- **Schedule tweets, blog posts, or status updates.**
 - One of the most powerful tools in social media management software like MediaFunnel and Tweet Deck, is the ability to schedule a status update in the future, at a time when you might be busy or outside of work hours.
- **Have a consolidated listing of all city social media accounts.**
 - If you have many accounts, prominently list links to social media accounts on your website.
- **Consolidate accounts into one place.**
 - Software like MediaFunnel, Tweet Deck, Seismic, and HootSuite, are software applications that consolidate social media accounts across Twitter, Facebook, WordPress, LinkedIn, Foursquare, Flickr, and other networks.
- **Automatically monitor the internet for buzz.**
 - Anticipate challenges by monitoring specific keywords with Google Alerts and HootSuite. This way, you can be the first to know about and respond to praise or criticism about a particular initiative.

SUSTAINABILITY COORDINATION & COMMUNICATION AND OUTREACH

- **Collaborate with the public on influential choices.**
 - Engagement activities intended to “collaborate” with the public ask residents to partner with government in each aspect of decision-making.
- **Give your participants praise and feedback.**
 - Reporting back to participants: As participants have volunteered time and effort to give you input, it is important to report back to them about how their input was used and how much it influenced the final decision or report.
 - Let participants earn a good reputation: People are happy to volunteer time for something that helps their reputation as an expert in their field. Many websites recognize participation with a “trophy” that conveys status. For example on LinkedIn and Quora, users are recognized for answering community questions.
 - People are more likely to participate when they feel their responses are valued. One way to value responses is to appoint “response leaders,” or local leaders who read user-submitted answers or ideas. This way, residents are interacting with local leadership on issues they care about, rather than “the government.”
 - The website includes a brief biography and photo of the Response Leaders, providing a personal face to the initiative.
 - Remember to thank everyone who shared their time.
- **Use print media to advertise your social media accounts.** Print media, such as transit posters, can drive traffic to an online tool.

Consider all social media methods:

- **Blogging:** Effective for keeping residents informed about an ongoing process or news. Blogs are frequently used by local governments to showcase new projects. Staff rewrite press releases in more engaging ways to create blog posts.
- **Event Registration:** If you’re hosting an event, consider using Facebook Events or EventBrite to promote it, even if you do not need RSVPs. These tools help people put the event into a calendar and make it easy to share the event with friends.
- **Microblogging:** When updating your website, announcing new events, and reminding participants of important issues, don’t forget to use Twitter to send updates.
- **Online advertising:** You can advertise your Facebook Page to Facebook users who meet specific demographic and/or geographic characteristics. Google AdWords advertising, which is less targeted, is a great way to promote your website on Google searches.
- **Surveys:** Check in with residents by asking about the quality of your efforts.
- **Webcasts:** Useful tools for teaching, such as explaining a new policy or showing steps for how to use a new tool.

SUSTAINABILITY COORDINATION & COMMUNICATION AND OUTREACH

Consider different social media tools:

- **HootSuite:** Social media dashboard that works on Facebook, Twitter, Linked In, and other platforms to collect analytics, allow team collaboration, schedule messages for maximum exposure, sync with mobile devices, assign messages to team members, and other helpful features.
- **Storify:** An online crowdsourcing platform that aggregates tweets, pictures, videos, blog posts, and other information onto a publicly visible website. It is a good way to tell a story across the social web, showing how people have interacted online with an event. Storify could be a good way to summarize an engagement event that had a mix of online and offline participation.
- **Yelp:** People can review anything with an address. Consider raising the profile of parks, libraries, and community centers by updating their profiles on Yelp and offering rewards to patrons. Residents who love your facilities will likely write positive reviews, helping them compete with commercially-run alternatives.

Endnotes

- ¹ City of Alexandria, *Eco-City Charter 2008*.
- ² City of Alexandria, *Eco-City Environmental Action Plan*, 2009.
- ³ *Eco-City Environmental Action Plan*, 60.
- ⁴ *Eco-City Environmental Action Plan*, 56-57.
- ⁵ Schilling, Joseph. Personal communication. 30 April 2015.
- ⁶ *Office of Environmental Quality*. City of Alexandria, Virginia. Web: <http://www.alexandriava.gov/Environment>. 14 May 2015.
- ⁷ *Eco-City Alexandria*. City of Alexandria, Virginia. Web: <http://www.alexandriava.gov/Eco-City>. 14 May 2015.
- ⁸ *Environmental Policy Commission*. City of Alexandria, Virginia. Web: <http://alexandriava.gov/EnvironmentalPolicyCommission>. 14 May 2015.
- ⁹ *Alexandria Master Plan (Small Area Plans & Citywide Chapters)*. City of Alexandria, Virginia. Web: <http://www.alexandriava.gov/planning/info/default.aspx?id=44614>. 14 May 2015.
- ¹⁰ *What's Next Alexandria?* City of Alexandria, Virginia. Web: <https://alexandriava.gov/WhatsNext>. 14 May 2015.
- ¹¹ *AlexEngage*. City of Alexandria, Virginia. Web: http://engage.alexandriava.gov/portals/191/forum_home. 14 May 2015.
- ¹² *How can we reach our 2020 Greenest City Targets?* City of Vancouver, British Columbia. Web: <http://vancouver.uservoice.com/forums/56390-gc-2020>. 14 May 2015.
- ¹³ *Volunteer Alexandria*. City of Alexandria, Virginia. Web: <http://www.alexandriava.gov/Volunteer>. 14 May 2015.
- ¹⁴ *7th Ellen Pickering Environmental Excellence Award*. City of Alexandria, Virginia. Web: <http://www.alexandriava.gov/recreation/earthday/info/default.aspx?id=76206>. 14 May 2015.
- ¹⁵ Leonard, Kathleen. Personal communication. 13 Apr. 2015.
- ¹⁶ Tran, Khoadinh. Personal communication. 13 Apr. 2015.
- ¹⁷ Skrabak, William. Personal communication. 13 Apr. 2015.
- ¹⁸ Abu Ghazaleh, Rana. Personal communication. 20 Apr. 2015.
- ¹⁹ Lassetter, Jessica. Personal communication. 18 Mar. 2015.
- ²⁰ Kapsis, James. Personal communication. 8 Apr. 2015.
- ²¹ Riddervold, Kristel. Personal communication. 27 Mar. 2015.
- ²² Zatcoff, Alicia R. Personal communication. 13 May 2015.
- ²³ Hurley, Catherine. Personal communication. 2 Apr. 2015.
- ²⁴ Burbach, Cori. Personal communication. 13 Apr. 2015.
- ²⁵ Shapiro, Neal. Personal communication. 16 Apr. 2015.
- ²⁶ Basmajian, Andrew. Personal communication. 23 Apr. 2015.
- ²⁷ Bagley, Tim. Personal communication. 23 Mar. 2015 and 12 May 2015.
- ²⁸ Brown, Seth. Personal communication. 23 Mar. 2015.
- ²⁹ Hodges, Elenor. Personal communication. 15 Apr. 2015.
- ³⁰ Cruz, Agustín. Personal communication. 12 May 2015.
- ³¹ Narotsky, Natalie. Personal communication. 13 Apr. 2015.
- ³² *Department of General Services*. City of Alexandria, Virginia. Web: <https://alexandriava.gov/generalservices/>. 14 May 2015.
- ³³ "Governor Quinn Announces Investment to Expand Divvy Program in Chicago, Oak Park and Evanston." City of Evanston, Illinois. Web: <http://www.cityofevanston.org/news/2014/09/governor-quinn-announces-investment-to-expand-divvy-program-in-chicago-oak-park-and-evanston/>. 14 May 2015.

SUSTAINABILITY COORDINATION & COMMUNICATION AND OUTREACH

- ³⁴ Moe, Nils and Mia Arter. *About USDN, a Project of GPP* [PDF document]. Sent via email by Natalie Navotsky. 13 Apr. 2015.
- ³⁵ “Mayor Annise Parker/Centerpoint Announce Groundbreaking Agreements: LED Streetlight Conversion And Utility ROW Hike and Bike Trails Included.” The City of Houston, Texas. Web: <http://www.houstontx.gov/mayor/press/20140530.html>. 14 May 2015.
- ³⁶ *Washingtonian Green Giants Awards 2013*. Washingtonian Magazine. Web: <http://www.washingtonian.com/sections/politics-personalities/washingtonian-green-awards-2013/>. 14 May 2015.
- ³⁷ *Focus 2015*. Embassy of France in the United States. Web: <http://focus2015.franceintheus.org/>. 14 May 2015.
- ³⁸ Johnston, Sadhu Aufochs, Steven S. Nicholas, and Julia Parzen. *The Guide to Greening Cities*. Washington: Island Press, 2013. Print, 97-98.
- ³⁹ *Baltimore Office of Sustainability and the Environment Education and Awareness*. City of Baltimore, Maryland. Web: <http://www.baltimoresustainability.org/education>. 14 May 2015.
- ⁴⁰ *Eco-City Environmental Action Plan*, 48.
- ⁴¹ *Santa Monica Sustainability Quality Awards*. City of Santa Monica, California. Web: <http://www.smsqa.com/>. 14 May 2015.
- ⁴² Johnston, Nicholas, and Parzen. 156.
- ⁴³ Johnston, Nicholas, and Parzen. 123.
- ⁴⁴ Urban Sustainability Directors Network. *Digital Sustainability Conversations: How Local Governments can Engage Residents Online*. March 2012.
- ⁴⁵ *Eco City Environmental Action Plan*, 14.
- ⁴⁶ *Eco City Environmental Action Plan*, 56.
- ⁴⁷ Johnston, Nicholas, and Parzen, 119-145.
- ⁴⁸ Johnston, Nicholas, and Parzen, 81-118.
- ⁴⁹ Portney, Kent E. *Taking Sustainable Cities Seriously*. Cambridge: The MIT Press, 2013, 37-88.
- ⁵⁰ Portney, 151-186.
- ⁵¹ *Office of Sustainability and the Environment*. City of Santa Monica, California. Web: <http://www.smgov.net/departments/ose/>. 14 May 2015.
- ⁵² *Greenbuzz*. City of Evanston, Illinois. Web: <http://evanstongreenbuzz.org/>. 14 May 2015.
- ⁵³ *Community-Based Social Marketing*. McKenzie-Mohr & Associates. Web: <http://www.cbsm.com/public/world.lasso>. 14 May 2015.
- ⁵⁴ *Socrata*. Socrata, Inc. Web: <http://www.socrata.com/>. 14 May 2015.
- ⁵⁵ *Innovation Products*. Urban Sustainability Directors Network. Web: <http://usdn.org/public/Innovation.html>. 14 May 2015.
- ⁵⁶ Urban Sustainability Directors Network.