Alliance for Progressive Values
P.O. Box 16446
Richmond, Virginia 23221
APVonline.org
publicpolicy@APVonline.org

Moving Richmond Forward:

Policy Recommendation for the City of Richmond

A Paper by the APV Local Public Policy Committee.

INTRODUCTION

The City of Richmond has sponsored many laudable initiatives in recent years: task forces on sustainability, food policy, and bicycling, walking, and trails are some of the most notable. These initiatives embody countless hours of deliberation and work by citizens, City of Richmond staff, and consultants. The resulting recommendations and planning documents are valuable guides to Richmond's future as a Tier One city. The Alliance for Progressive Values strongly urges Richmond's elected officials to use the documents produced by these initiatives as guides, and to follow their recommendations.

As commendable as Richmond's recent policy recommendations are, there are additional clear, unequivocal steps the City should take to position itself for the bright future ahead. Some of these are multi-year projects with large budgets whose impact will be felt over time. Others, however, are much less complex, easily implemented over a short period of time, with more immediate impacts. These extra steps are:

- Build on the City of Richmond's significant commitment to renewable energy by initiating a **Solar Power Purchase Agreement** with Dominion Virginia Power. The City of Richmond's numerous public buildings offer ample roof space for the installation of photovoltaic (PV) arrays, also known as solar panels. Both the city and Dominion Virginia Power could recognize significant financial benefits from this type of arrangement. Because it spends millions of dollars every year for electricity, the City of Richmond is in a unique position to negotiate such a project with Dominion Virginia Power.

- Promote one of the foundations of a sustainable citywide transportation system by supporting GRTC Transit System in its quest to identify a location for and build a **Downtown Multi-Modal Transportation Hub**. By developing a central location for all bus transfers, as well as connections to and from other forms of transportation, in the same location, GRTC and the City will be improving Richmond's transportation system and opening opportunities for additional community and economic development downtown.

- Increase Richmond's food security by supporting a **robust local food system**. Treating urban agriculture as an economic and community development tool will lead to greater diversity in Richmond's economy, ensure the safety of Richmond's food sources, and it will also contribute to public health and public safety, among other benefits.

- Recognize and exploit the **economic benefits of natural systems** by reducing use of fertilizers and pesticides on City properties, and implementing comprehensive rainwater harvesting and filtering programs, and composting programs. These programs have the potential to significantly reduce the costs of irrigation and stormwater treatment, as well as to extend the life of city landfills.

- Conserve resources by **reducing the use of, and eventually banning, plastic shopping bags, and serving filtered tap water** instead of bottled water in all City departments. Millions of plastic bags and bottles, manufactured with petroleum, wind up in our landfills and in the James River every year. Encouraging the use of reusable bags and bottles will conserve natural resources, reduce the cost of disposal, and protect our environment.

RENEWABLE ENERGY

In recent years, many entities have used Solar Power Purchase Agreements (SPPA) to purchase electricity at a fixed cost over several years. Under an SPPA, a host entity agrees to have a photovoltaic (PV) array, also known as solar panels, owned by a third party installed on a roof or nearby parcel. Both parties agree on the purchase price for the electricity generated by the PV array for a specific number of years. According to the U.S. Environmental Protection Agency (EPA), contracts last anywhere from six years, which is the life of the tax credits available to the host or the owner, up to 25 years. This arrangement allows the host entity to better plan its budget while shielding it from the capital and operational costs of purchasing and maintaining PV arrays.

In addition to the benefits the host entity receives, the EPA states that the owner of the PV array may be eligible for tax credits and other incentives that reduce the cost of the arrays, in addition to also receiving the income generated by the PV array. While there may be some challenges to the entity purchasing the power, benefits such as zero capital costs, stable energy pricing over the term of the contract, and the potential for local job creation, outweigh any potential problems.

A quick Internet search for recent SPPA requests for proposals shows that many public entities are taking advantage of solar power, and SPPAs in particular. The City of New York, the United States Army and Navy, the Pennsylvania Convention Center, the Chicago Department of Aviation, and the Washington Suburban Sanitary Commission, to name but a few public entities, have issued requests for proposals for SPPAs or PV arrays. As this list of names shows, and as the city's own *RVA Green: A Roadmap to Sustainability* states, solar power generation is feasible throughout the United States, and most definitely in Richmond.

An SPPA between the City of Richmond and Dominion Virginia Power would dovetail perfectly with Richmond's energy objectives, outlined in *RVA Green: A Roadmap to Sustainability*. An SPPA between the City and Dominion Virginia Power would dramatically increase the city's use of renewable energy, as well as its energy resilience. A large-scale SPPA would lead to the creation of new jobs, and could pave the way for additional SPPAs in the City.

TRANSPORTATION

Bus traffic along Broad Street, especially during rush hour, is a contributor to downtown traffic congestion. For most people who have to transfer from one bus line to another, it is necessary to wait for 15 minutes or more to transfer from one bus line to another, typically while waiting with little or no shelter in inclement weather. Richmond needs a dedicated place for bus transfers to occur, one where passengers can move from one line to another quickly and safely, and where bus arrivals and departures are frequent so passengers don't have to wait 45 minutes for their connection. In addition, passengers should be able to leave this area and grab a taxi, jump on a bicycle, or take advantage of other forms of transportation without having to walk more than a few blocks.

Richmond needs a Downtown Multi-Modal Transportation Hub, which would be an enormous contribution to the transportation goals outlined in *RVA Green: A Roadmap to Sustainability*. Rather than being a grim, dirty bunker with poor lighting, inconveniently situated on the outskirts of town, this Downtown Transportation Hub should be an attractive place that mixes uses. Offering amenities such as bicycle rental, a coffee shop, ticket sales, tourist information, and other services with an affinity for transit, a Downtown Transportation Hub should be a gateway to the City. It should make public transportation, biking, and walking easy and attractive options for a wide range of riders. Such a hub would increase the efficiency of the entire Richmond transportation

system, and if done right could offer new opportunities for economic development for businesses that choose to locate in the hub itself, or immediately around it.

FOOD SYSTEMS

The Alliance for Progressive Values understands food systems to be as important as transportation systems, utility systems, and financial systems. We support all the recommendations put forth by the Food Policy Task Force, and recommend creating the position of Food Policy Coordinator as a first and immediate step.

In addition to these recommendations, the Alliance for Progressive Values recommends implementing measurable goals to integrate local farms and food into Richmond Public Schools' food procurement. We recommend starting at 10 percent per year, and increasing this by 7.5 percent per year until reaching a goal of 75 percent local food (defined as a 150 mile radius of Richmond).

The APV also suggests that the City view community gardens as public goods, and should extend assistance with insurance, long term planning, and identification of water sources to groups interested in starting gardens. Establishing community gardens spans the purview of the Departments of Public Utilities, Public Works, and Planning and Development Review, among others, and it is essential that these departments work together to support the process of building those gardens.

Finally, the APV recommends that the City view urban agriculture as an economic development opportunity, and extend to urban farmers the same economic incentives and other forms of support currently reserved for traditional commercial enterprises. This should include considering the use of City-owned land for commercial agriculture. Urban agriculture (1/2 acre or greater) has the potential for not only economic development, but also a general increase in our shared wellness. Studies indicate that, with the proper support from municipalities, urban agriculture can be a sustainable source of revenue, and can contribute to increased nutrition and reduced crime.

ECOSYSTEM SERVICES

Richmond's urban forests, parks and other undeveloped land offer a wealth of benefits: they help moderate air temperatures in the City, and have the potential to help us reduce heating and cooling costs in our built environment. These lands absorb and filter rainwater as it flows toward the James River and the Chesapeake Bay, reducing the burden on our water treatment system by reducing the volume of water we treat and the contaminants in it. They offer space for growing food, which in turn helps restore soils, provides habitat, and increases biodiversity, all of which improve our local ecosystem and bioregion. Our parks and public lands provide an enormous benefit to our standard of living. We can do more to preserve and improve these important natural resources, and recommend the following steps.

The Chesapeake Bay ecosystem, which includes the James River, is severely compromised. The University of Maryland's Center for Environmental Science gave the Bay and the James a grade of D+ for 2011, citing heavy rains and high temperatures, which led to increased nitrogen, phosphorus, algae blooms, large volumes of fresh water entering the Bay, and high sediment levels. To help improve these health scores, the City should closely examine and reduce its use of nitrogen and phosphorus on public lands, and if possible work with large local land owners, such as golf courses, to do the same. In addition, the EPA recommends educating lawncare professionals and the public on the potential harm to our waterways caused by over-fertilization. The City has

access to an excellent source of public information in Virginia Cooperative Extension, and should use it to help spread the word to residents.

Another way the City can reduce nutrient runoff into the James River, while at the same time providing safe, healthy fertilizer for its landscaping and plantings, is to start a Citywide composting program. This would also reduce the amount of waste entering our landfills every year, extending their lives. According to the website Recology.com, the City of San Francisco has diverted millions of tons of waste from its landfills by composting, and has also reduced methane emissions. Using the resulting compost in place of conventional fertilizers could potentially save the City money it usually spends on fertilizer. The use of compost would also improve the condition of soil on public lands, and could result in healthier plants that require less frequent replacement. Finally, the City could realize a new source of revenue by selling the compost.

Perhaps the easiest way to improve the health of our waterways is to let Mother Nature do most of the work. The City should prioritize repairing and maintaining all riparian buffers (the vegetated areas along the course of a body of water) to improve water quality and provide habitat for wild animals. In addition, all new building or park projects should include a plan to capture 90 percent of the water that hits the surface, through rainwater harvesting, green roofs, and rain gardens. Finally, all new road/median/sidewalk projects should include a water management plan that captures the optimal level of water, filtering it through planters and tree wells before it enters the watershed.

PLASTIC BAGS

In keeping with the City's proposals for a cleaner, greener city, the Alliance for Progressive Values recommends a dramatic reduction in the use of plastic bags, with the ultimate goal of phasing them out entirely. While plastic bags seem innocuous enough, according to FoodDemocracy.wordpress.com, "it takes about 430,000 gallons of oil to produce 100 million plastic bags, and the U.S. goes through 380 billion of them a year." Business owners in the United States spend almost $4 billion annually on plastic bags, many of which wind up in our waterways, our streets, and our landfills. Cities such as Los Angeles, Seattle, Aspen, and Toronto, Canada, have successfully banned the use of plastic bags altogether. While moving to an immediate ban would be difficult here, there are intermediate steps the City of Richmond can take to minimize their use.

The City can reduce the use of plastic bags by offering an incentive to grocery stores and pharmacies to reduce plastic bag consumption. Stores could provide free, reusable shopping bags to their "card-holding" customers for every $100 they spend. In return, the City might offer a tax credit over a period of time to offset the cost of the free bags. Extending this program to smaller businesses If their free shopping bags carry their logo, this will result in cross-promotion when a shopper takes their bags to other businesses.

Another way the City might reduce plastic bag consumption is to require businesses to charge a fee for the use of plastic or paper bags. The fee will allow a consumer an alternative if they choose not to use their own bags, or if they forget to bring them, but will discourage the use of plastic or paper shopping bags overall. When Ireland began to charge the equivalent of $.37 per plastic bag, they reduced their demand for plastic bags by 90 percent in the first year. The City could start with a much smaller fee of $.05, and increase the amount over time to achieve similar results.

DRINKING WATER

The Alliance for Progressive Values promotes the education of citizens about the costs of choosing bottled water instead of City tap water. There is the cost we pay to buy water, which averages $1.27 per gallon for bottled water, while the same amount of filtered tap water costs about $.13. In addition, the environmental costs of bottled water are enormous. According to the United Nations Environment Program, eighty-eight percent of plastic water bottles are not recycled in the United States, and will take approximately 1000 years to disintegrate in landfills. The web site allboutwater.org quotes a 2001 study that found it took about 1.5 million barrels of oil to produce 89 billion liters of bottled water. In addition, various sources estimate that it takes up to seven times the amount of water to make a bottle as the amount of water that the bottle will hold for a single use.

While some people believe that bottled water is safer to drink than filtered tap water, this is not the case. Municipal water supplies are heavily regulated by the U.S. Environmental Protection Agency, which has set strict guidelines for water quality. According to the City of Richmond Department of Public Utilities, Richmond's municipal water supply met or exceeded the EPA's water quality standards in 2011.

The APV believes the City of Richmond can be a model for its citizens by serving tap water in pitchers at public meetings, and promoting the use of tap water to City employees. Further, the City should restore the use of water fountains in public buildings. In parks and other public areas, where feasible, the City should install "filling stations" so that citizens can replenish their refillable water containers conveniently, reducing the need to buy bottled water while out and about in the City. Finally, the City can give away promotional "City of Richmond" refillable water containers at public events, and as incentives for public contests.

Conclusion

These are exciting times in the City of Richmond, as we make great strides toward our goal of becoming a Tier One City. The Alliance for Progressive Values applauds the City of Richmond for the work it has done to achieve this status, and we encourage the City's elected officials to use these recommendations to speed Richmond along that path.

Bibliography

Solar Power Purchase Agreements

SPPAs explained: http://www.epa.gov/greenpower/buygp/solarpower.htm
An SPPA primer for state and local governments: http://www.nrel.gov/docs/fy10osti/46668.pdf
An EPA-sponsored webinar on SPPAs: http://www.epa.gov/greenpower/events/july28_webinar.htm

Transportation

Bus transfer facilities can benefit transit and the community: http://www.nctr.usf.edu/pdf/527-13.pdf
Transit facilities may reduce crime: http://onlinelibrary.wiley.com/doi/10.1111/j.1467-9906.2011.00564.x/abstract
Offering easy transit transfers leads to increased ridership: http://www.transweb.sjsu.edu/project/1003.html

Food Systems

The profitability of urban agriculture: ftp://ftp.fao.org/docrep/fao/010/a1471e/a1471e00.pdf
The socio-economic impact of urban agriculture: http://www.cityfarmer.org/JoshMacPhee%20Dissertation.pdf
Cleaning up vacant property can lead to a reduction in crime: http://injuryprevention.bmj.com/content/early/2012/08/06/injuryprev-2012-040439.abstract

Community gardens can turn unused areas into productive spaces:
http://www.theatlanticcities.com/neighborhoods/2012/05/30000-square-foot-community-garden-parking-garage/2102/

Ecosystem Services
The Chesapeake Bay health report card for 2011: http://www.umces.edu/release/2012/apr/17/chesapeake-bay-health-drops-d-2011
http://ian.umces.edu/ecocheck/report-cards/chesapeake-bay/2011/
The EPA's recommendations for reducing nitrogen and phosphorus runoff into our waterways:
http://cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm?action=browse&Rbutton=detail&bmp=97
The benefits of a citywide composting program: http://www.recology.com/index.php/recology-in-the-news/94-recology-news/144-mayor-ed-lee-celebrates-city-composting-achievements-2
The benefits of urban street trees:
http://www.walkable.org/assets/downloads/22%20Benefits%20of%20Urban%20Street%20Trees.pdf
Trees mitigate the effects of tsunamis (and other severe water events):
http://www.theatlanticcities.com/neighborhoods/2012/06/instead-levees-plant-trees/2170/
Trees help reduce crime: http://www.sciencedirect.com/science/article/pii/S0169204612000977
Parks can be designed to repair riparian buffers, capture rainwater, and reclaim brownfield sites:
http://inhabitat.com/nashville-riverfront-transformed-from-wasteland-to-cumberland-play-park-for-families/

Plastic Bags
The consumption of oil in the manufacture of plastic shopping bags:
http://fooddemocracy.wordpress.com/2008/07/16/plastic-bags-and-oil-consumption/
Growing support for the banning of plastic shopping bags:
http://money.cnn.com/2007/03/14/magazines/fortune/pluggedin_gunther_plastic.fortune/index.htm
http://news.nationalgeographic.com/news/2003/09/0902_030902_plasticbags.html

Tap Water Versus Bottled Water
The amount of oil used in making plastic water bottles: http://www.allaboutwater.org/environment.html
Richmond's water quality report for 2011:
http://www.richmondgov.com/PublicUtilities/documents/reportWaterQuality2011.pdf
Tap water is much less expensive than bottled water: http://www.sustainabletable.org/issues/water/