

Preserving the Future

A Virginia

Environmental Handbook

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THE GREATER GOOD INITIATIVE ENVIRONMENTAL POLICY SECTOR

LOCAL
ECOSYSTEMS

SUSTAINABLE
DEVELOPMENT

CITIZEN
ENGAGEMENT

HOW TO ACHIEVE SUSTAINABLE
POLICY AT THE LOCAL LEVEL
AMIDST A VIRAL PANDEMIC

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“PRESERVING THE FUTURE” ENVIRONMENTAL HANDBOOK

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What is The Greater Good Initiative ?

The Greater Good Initiative is a youth-led policy think-tank with the mission of promoting youth engagement and mobilization in the policymaking process. Our goal is to autonomously create effective, sustainable, and bipartisan policy proposals and advocate them to legislators at the local, state, and federal levels. Our team is crafting these proposals and connecting with legislators and special interest groups to garner support from both sides of the aisle. We believe that it is of vital importance to shine a light on the innovative fresh new thinking that comes out of young minds. By equipping young people with professional policy writing and advocacy skills, The Greater Good Initiative is working to bring new voices into the world of politics.

The Environmental Policy Sector of the Greater Good Initiative seeks to channel this youth engagement into incisive projects related to key environmental issues. This handbook provides a framework for local legislators who may have limited experience with the mechanisms counties and municipalities can use to advance environmental interests. The GGI Environmental Policy Sector has compiled a wealth of academic research organized around three key principles, or tenants. Given the intersectional nature of environmental issues, the handbook seeks to link these tenants to other relevant issues that are burdening our local communities. With this research in hand, local governments can commit to necessary, unwavering environmental standards.

Environmental Action ⁱⁿ the Current Political Climate

As Virginia counties and municipalities prepare to reopen in a post-pandemic world, there is increasing evidence that economic growth is being prioritized over environmental sustainability. Even prior to the rapid spread of COVID-19, the proposed federal budget for fiscal 2021 sought to slash funding for the EPA and other environmental programs, much of which supplies state and local environmental efforts. Gallup polling shows that the onset of the pandemic correlated with fewer people selecting the environment as their “most important” issue. This deprioritization has been exacerbated by the civil unrest occupying much of the current political spotlight. With political capital focused on COVID-19 and centuries of racial inequality, activists face the prevailing obstacle for environmental issues: ignorance.

Not only are environmental challenges as pertinent today as ever, but they are firmly connected to COVID-19 and racial justice. The intersectional nature of environmental policy means that

these problems are inescapable, even at a local level. While pursuing racial equality, activists and government officials alike must confront environmental

racism—the notion that environmental issues often disproportionately burden people of color. For example, a 2012 study in the *Environmental Health Perspectives* found that exposure to particulate matter—and its accompanying health risks—was significantly more likely for people of color despite air pollution being disproportionately caused by predominantly white communities. Because of racist policies like segregation and redlining, African Americans have been placed in communities more prone to environmental risks. A holistic approach to racial equality must consider these disparities brought about by environmental racism.



A protester holds up a sign warning about the dangers of climate change in a 2017 march in the Nation's capital. Despite the ongoing pandemic, protests have continued (Photo via Pxfuel).

The coronavirus exposes

several other key issues. As animals migrate to colder habitats under the threat of climate change, the transmission and formation of diseases become increasingly probable. With poorer air quality, people, disproportionately belonging to minority groups, have developed pre-existing respiratory conditions that worsen the consequences of COVID-19. In a similar manner to how global, multilateral solutions are fundamental to combating the spread of the coronavirus, there must be a continuous, coordinated effort to protect the environment. This begins with local ingenuity.

Protecting Local Ecosystems

“LOCALITIES MUST DEFEND THE SANCTITY AND SECURITY OF WATERWAYS, WILDLIFE HABITATS, PRESERVED LAND, AND OTHER NATURAL ECOSYSTEMS.”

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Since the pandemic began, we have seen federal regulators relax key environmental protections, in the name of prioritizing economic stability. This approach is built around a fundamental misunderstanding—that safeguarding the environment and maintaining a strong, dependable economy are mutually exclusive. By incorporating sustainable development policy into efforts to revitalize their economies, city and county governments will pave the way for a future where sustainability and economic growth are co-dependent, not contradictory.

With developments in environmental science and a newfound, public awareness for sustainability, the US government has taken a more active role in protecting the environment. But the regulations imposed at the federal level—many rapidly disappearing under the current administration—do not relinquish all responsibility from municipalities. In the best interest of their populus and the broader movement towards sustainability, local officials must actively fight to protect environments within their jurisdiction. Virginia’s distinct ecosystems are foundational to the success of local communities. Counties and municipalities must ensure an unwavering commitment to environmental protectionism in order to maintain a satisfactory

quality of life for their citizens. Our drinking water, coastal land, and air quality are in danger without a continued commitment on the part of local governments.

There has already been observable, irreversible damage done to Virginia’s environment. 46 public beaches actively monitor bacteria levels in beach water, cautioning swimmers to not swim within days of heavy rainfall for fear of disease-causing organisms brought about by pollution and runoff. Even for the 40 percent of the state that does not drain to the Chesapeake bay, concerns over streamside deforestation and water quality persist. In order to maintain Virginia’s quality drinking water and outdoor recreation, these trends must be reversed.

But the worst environmental

effects have yet to come. Scientists project Virginia will experience at least 1.5 feet of sea-level rise during the next 20 to 50 years, putting coastal communities increasingly at risk. Cities along coasts and tidal rivers are expected to face the costs of severe flooding. These problems are exacerbated in Alexandria and Virginia Beach, where population density and replacement costs are high. Additionally, hotter temperatures could worsen air quality, which is especially threatening for those with asthma and other pre-existing respiratory conditions. These grim prospects warrant full attention, regardless of extraneous circumstances.

With a united movement on behalf of Virginia communities, quick, grassroots-led action at the local level can help spur broader sustainability in the Commonwealth. Local governments must first seek to limit their carbon footprint by transitioning energy sources and refining public transportation systems. As utility consumers, localities can go above and beyond by

sourcing clean power and establishing a renewable infrastructure. While Virginia requires the use of a regulated monopoly utility, cities and counties can still utilize green power purchasing mechanisms. Managing the funds to undertake these projects, while difficult, can have significant environmental benefits.

Many local governments have committed to long-term goals that help ensure environmental interests are valued for years to come. Targeting a specific reduction in emissions or pursuing carbon-neutral status helps provide a framework for incisive environmental action. Organizations such as the Global Covenant of Mayors for Climate and Energy help unite local leaders in an international movement towards sustainability. Organizations such as Virginia Energy and Sustainability Peer Network (VESPN), offer similar partnerships at the state level. As localities plan for the future, they must commit to ambitious environmental targets.

When revamping transportation, local officials have countless options. Despite many promising trends in energy consumption, vehicle miles traveled in the South-Atlantic have continued to increase. Many cities are working to incentivize renewable travel by

providing bike racks, electric-car sharing, bike sharing, vanpools, public transit vouchers, and more. No solution applies universally, but cities must find innovative ways to address emissions from vehicular transport, which are particularly problematic in high-density urban localities. Waste management is another way in which local governments are responsible for the environment. Providing functioning, efficient recycling and composting services can help manage consumption and greenhouse gas emissions.

Beyond traditional roles, local governments can also examine day-to-day processes in order to limit a community's

carbon footprint. Oftentimes, cost-effective organizational adjustments simultaneously benefit the environment. One clear example is the use of technology and cloud computing over paper products, a small shift that can have real long-term effects on waste. Additionally, local governments can evaluate their supply chain. Environmentally Preferable Purchasing (EPP) plans help source products from green-friendly suppliers. It is crucial that, while pushing for traditional environmental regulation, local governments embody the same sustainability in their own operations.

Case Study

One of the most endangered ecosystems in Virginia are the forests surrounding the Chesapeake Bay, an area that is rapidly succumbing to suburban sprawl. Chesapeake forests serve as riparian buffers, which reduce the amount of nutrient pollution entering waterways by up to 90%. With recreation and fishing industries worth millions and billions of dollars respectively, the continued health of the Bay is vital, and efforts to sustain it present a uniquely Virginian case study of conservation efforts during the current pandemic. The Riverwise Schools program in Richmond has developed an innovative plan to combine safe, socially-distanced learning with preservation. Middle school students will study the



Students at Binford Middle School learn the importance of streamside vegetation (Photo via Meredith Dash).

relationship between the Chesapeake forests and water quality, and participate in restoration projects around the James River. The Alliance For the Chesapeake Bay, a major environmental nonprofit helping to fund the new hands-on curriculum, highlighted the program's ability to "provide...learning spaces for students during this pandemic." Local governments across the region should look to schools, and students who will no longer be safe in conventional classroom environments, to serve as ambassadors and protectors of water quality.

Promoting Sustainable Development

“LOCALITIES MUST CONSIDER ENVIRONMENTAL CONCERNS WHEN MANAGING ECONOMIC GROWTH AND HOLD DEVELOPERS ACCOUNTABLE TO REASONABLE ENVIRONMENTAL STANDARDS”.

Too often, legislators mistakenly assume that addressing environmental concerns inevitably stymies economic development. While it is true that unhinged urban sprawl has far-reaching environmental consequences, in reality, there are ways to manage economic growth in a sensible, sustainable manner. In fact, though often sacrificed for immediate economic gain, long-term environmental interests are actually in line with economic interests. Virginians could suffer the consequences of a massive economic downturn with the insufficient protection of the environment.

Our watersheds and waterways are an especially great example of this truth. Oyster decline in the Chesapeake Bay over the past 30 years, largely a result of sedimentation and poor water quality, has meant a loss of more than \$4 billion in Maryland and Virginia. And climate change threatens the economic viability of Virginia’s coastline. According to a 2018

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Given the economic inactivity of quarantine, many municipalities are eager to stimulate local markets with new developments. While this is important, they must not forget that harmful developments can have lasting, devastating impacts on local environments. Local governments must feel some responsibility to consider the long-term well-being of the environment when undertaking new projects.

study by the Union of Concerned Scientists, 2.4 million American homes and businesses, representing more than \$1 trillion in present-day value, will suffer chronic flooding by 2100. As chronic inundation threatens property values, many localities’ tax base will be cut. The loss of properties and economic activity in Virginia’s coastline would bring about a number of other secondary economic consequences. Beyond the flooding of coastline and riverside properties, climate change will also demonstrably increase the risk of extreme weather incidents. This jeopardizes Virginian infrastructure. Either in preparing, with increased drains, sewers, piped water, and paved roads, or in recovering, these incidents will come with a hefty price tag. The

research is clear: as temperatures continue to rise, global economic productivity declines.

Once the severity of climate change’s widespread consequences are understood, local governments can focus efforts on promoting sustainable development. One of the most accepted definitions of sustainable development comes from the renowned 1987 report of the UN World Commission on Environment and Development: “Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.” The report explains that technological and social advancements impose limitations on the environment’s ability to meet future needs. With the present need

for action combating climate change, finding ways to promote development that manages social, economic, and environmental interests is extremely important. While the Dillon Rule limits the extent to which local governments can impose regulations on private development, land use and zoning controls still provide a meaningful amount of control to aid the environment.

When planning new development, localities have a number of responsibilities. Local governments must first identify the important ecosystems to be conserved. By establishing these conservation subdivisions, clusters of development can be pursued without risking necessary environmental systems. If development encroaches on valuable land, conservation landscaping practices can help mitigate the negative environmental effects. Conservation landscaping, often referred to as Bayscaping in

the Chesapeake Bay area, helps promote a habitat for wildlife, uses appropriate native plants, retains clean air and water, and limits the use of fertilizers and pesticides among other ecological benefits. While many zoning ordinances already claim to address environmental concerns, researchers have found that as legislation ages, it becomes increasingly inadequate to address modern sustainability issues. Local governments, in collaboration with environmental science, can establish and update practices to secure these healthier and happier forms of development.

In terms of the actual infrastructure, local governments must stipulate environmentally friendly construction. Protecting water resources, incorporating green roofs, and using pervious surfaces are some of the creative ways to adhere to environmental interests. Most often, developers rely on the internationally

recognized Leadership in Energy and Environmental Design (LEED) rating system. LEED provides a flexible, comprehensive rating system that applies across commercial and residential building types. Many local ordinances are structured around LEED certification, requiring specific environmental standards in public and private development. Local governments should also seek to foster construction that works alongside an effective public transit system—ensuring that the development does not serve as an obstacle to renewable practices. Parking should be minimal or shared, with parking lots that consider the local environment. There are countless ways in which counties and municipalities can address the environment in development, from all out advanced LEED certification to small design tweaks, sustainability must be a focal point in future development.

Case Study

On June 22, 2019, the City of Alexandria adopted the 2019 Green Building Policy, the culmination of significant environmental activism. The policy stipulates that all private and public developments achieve LEED Silver and Gold certification respectively. Given the limitations of local governments' powers in Virginia, the policy is intelligently crafted under development's existing procedural framework. Based on a system of "performance points," the policy provides a consequential, but flexible way for developers to reach the new standard. In order to merit certification, developers must succeed in three categories: energy use reduction, water efficiency, and indoor environmental quality. Alexandria's landmark policy proves the active and engaged role local governments can take in saving the planet.



A 2014 commercial development in Alexandria, Virginia. Alexandria has committed to aggressive, sustainable standards (Photo by Ser Amantio di Nicolao via Wikimedia Commons).

Fostering Citizen Engagement with the Environment

“LOCALITIES HAVE A RESPONSIBILITY TO INSPIRE PASSION FOR WILDERNESS AND OUTDOOR SPACES, PROTECT RECREATIONAL SPACES, AND ENCOURAGE CITIZEN ENGAGEMENT WITH THE OUTDOORS.”

In the early stages of quarantine, public outdoor spaces were heavily regulated at all levels of government to prevent the spread of COVID-19. As stay-at-home orders were issued by state governments across the country, including Virginia, access to these spaces became increasingly difficult. It is essential to the broader goal of environmental preservation that COVID-19 does not speed up the trend of Americans spending less time outdoors. Providing easy access to the outdoors is particularly vital during the COVID-19 outbreak, as outdoor play and recreation reduces the risk of disease transmission when compared to alternatives, and serves as an inexpensive mental health resource. Local governments must find ways to creatively encourage citizens to develop an intrinsic attachment to outdoor spaces, if they are to be preserved in the future. City councils and county boards are uniquely suited for this task, given parks and recreation is

predominantly a service provided at the local level. Innovative strategies to reignite engagement with the outdoor spaces are already underway throughout the country, from backyard revitalization initiatives, parks that can be visited under social distancing guidelines, and opportunities for citizens to track changes to wildlife presence from their homes. These efforts can be studied and replicated across major population centers in Virginia, including Fairfax County and Virginia Beach.

The Commonwealth is at an advantage when it comes to fostering outdoor engagement in heavily populated areas, as many metropolitan zones are located adjacent to protected land. Northern Virginia encloses Great Falls Park, an 800 acre protected landscape managed by the National Park Service. The City of Virginia Beach has spent millions of dollars preserving and restoring miles of pristine beachfront, accessed by almost 20 million people per year.

In this sense, government officials in these areas committing to “inspiring passion for wilderness” are not making aimless promises; they have the resources to facilitate access to outdoor spaces close to home. This has been modelled extensively throughout the country. In Trinidad, Colorado, a new state park was established shortly after COVID-19 became widespread, and the town is already reaping the benefits. Residents report optimism and excitement about the new source of revenue amidst an otherwise crippled local economy, and the new protections for the region’s unique ecosystem. Local officials in densely populated parts of Virginia should not be expected to develop state parks out of the suburbs—luckily they already exist. Instead, they should incentivize residents to visit with promotional campaigns, and small-scale incentives targeted at young people, such as reward-based educational programs modelled Junior Rangers. With most major school districts in Virginia entering the 2020 school year in various stages of closure, this opportunity to

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Amidst quarantine, it is difficult to take advantage of public outdoor spaces, reducing our reliance on, and connection to, a healthy environment. Simultaneously, there is more demand for mental health resources, which access to the outdoors can serve as. Local governments must find ways to creatively encourage citizens to develop an intrinsic attachment to outdoor spaces, if they are to be preserved in the future. This could include backyard revitalization initiatives, parks that can be visited under social distancing guidelines, and opportunities for citizens to track changes to wildlife presence from their homes.



A photo of Sky Meadows, a Virginia State Park. Citizens are healthier when local governments inspire civic environmentalism (Photo Aneta Kaluzna via Wikimedia Commons).

sustain hands-on learning through government sponsored programs is necessary.

Another great concept is civic environmentalism. Through sponsored programs and sufficient education, local governments can produce citizens who are educated on relevant environmental issues. Too often, environmental activism is focused on the policymaking process. Civic environmentalism seeks to compliment those efforts with individual sustainability practices. Flyers, posters, fairs, and other resources can help promote this eco-friendly concept. For counties and municipalities with adequate resources, funding public advocacy campaigns can help decrease citizens' carbon footprint.

Case Study

Portsmouth, New Hampshire is a vibrant port city located on the Piscataqua River. Like Virginian localities, Portsmouth operates under the Dillon Rule, and yet, with innovative local programs, their city has become especially connected to their local environment. Every year, Portsmouth holds a sustainability fair. Open to the public, the fair allows exhibitors, environmental activists, and volunteers to educate people on individual environmentally-friendly practices, while also pushing local legislators to enact meaningful environmental action. Portsmouth's City Council has embraced this civic environmentalism, establishing rigorous programs that educate city employees of sustainable practices. Alongside local legislation,

individual sustainable practices can produce legitimate positive environmental outcomes.



Portsmouth, New Hampshire, while not the Granite State's largest city, has paved the way for sustainable policies and practices. This progress is largely credited to an active, engaged populace (Photo by Daderot via Wikimedia Commons).

The Time to Act is Now

Virginians desperately need to revitalize the sustainability movement at the local level amidst shifting political priorities nationally. With extensive resources already earmarked to fight climate change and protect ecosystems, local governments must commit to sufficient environmental standards. The three critical tenants present in this handbook have enormous potential for bi-partisan and data-driven environmental reform. By directly preserving waterways, wildlife habitats, and other natural ecosystems, city officials will develop a sense of stewardship over not just the local

economy, but protection of the preexisting natural systems. By creatively considering the environmental impacts of development, city officials will gradually dismantle the antiquated belief that expansion and preservation are opposites. Finally, by reviving public engagement with wilderness and the outdoors, city officials will inspire love and care for the environment through direct experience. Coupled with a long-term grassroots advocacy campaign, the findings in this handbook have the potential to radically improve our state and country's environmental outlook.



(Photo via Wikimedia Commons)